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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.
## Alphabetical List of Philadelphia University Undergraduate Degree, Certificate and Minor Programs

For information on Philadelphia University’s graduate degree programs visit www.PhilaU.edu/gradcatalog.

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### 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.
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 significant 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

Since 1884, Philadelphia University has offered professional education in a variety of fields. Founded to raise the art and technology of the American textile industry to international standards of quality, the University has maintained its commitment to academic excellence, while greatly expanding its undergraduate and graduate programs. The University’s unique blending of the liberal arts and sciences with professional studies prepares graduates for successful careers in areas that include architecture, business, design, fashion, health, science and textiles.

At the University, students, faculty and staff form close relationships in an environment that encourages personal and intellectual growth. Students gain professional skills combined with a broad general education that enables them to thrive in diverse and changing contexts and to acquire a global perspective. While outstanding teaching is central to its mission, the University also encourages research and professional practice as a basis for faculty and student development and as a service to industry and society.

Through its dedication to maintaining a community that is varied and intellectually stimulating, and a campus rich in learning resources and natural beauty, Philadelphia University enables students to establish a foundation for success, lifelong learning and active citizenship.
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 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 and talented 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, to support them academically and to 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, a member of the Middle States Association of Colleges and Schools, is a successful, accredited, private university, attracting students from 38 states and 30 countries and offering undergraduate and graduate degrees in over 50 areas of study, including its doctorate program in Textile Engineering and Science.

The Campus

The 61 buildings on the University’s 100-acre campus range from historic Victorian mansions to contemporary classroom, library and residential facilities. The newest building on campus is The Tuttleman Center at Philadelphia University, a 31,500 square-foot, high-tech, academic facility. Fully wired, it offers students and faculty access to the most sophisticated technology available. Two new buildings, the Kanbar Campus Center and an athletic and recreation facility, are under construction and scheduled to be completed in August 2006 and January 2007, respectively.

The tree-lined Main Campus is located on the edge of Philadelphia’s Fairmount Park, in the beautiful residential area of East Falls, fifteen minutes from historic Center City Philadelphia. The University also operates a branch campus for Continuing and Professional Studies at the Neshaminy Interplex in Trevose, Bucks County, Pa.

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.
Admissions

Undergraduate Programs

Contact Office of Admissions 215.951.2800 or 1.800.951.7287 admissions@PhilaU.edu

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

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.

Continuing and Professional Studies Programs

Contact Office of Continuing and Professional Studies 215.951.2900 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.

Continuing and Professional Studies 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 and Professional 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.

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 Undergraduate 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. Contact the Office of Continuing and Professional Studies to learn more information on transfer credit for their programs.

**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 2005-2006

Full-Time Student

(12 or more credits and fewer than six courses per semester)

Comprehensive Fees:

Undergraduate

- Tuition (annual rate)* $22,070
  (includes Physician Assistant pre-professional phase)
- Students registering for an overload $736/per credit
  (six or more courses per semester)
- Physician Assistant Program** $25,434
  (professional phase)

Room*

- Residence Halls $3,910
- Townhouses $5,526
- Apartments $5,754

Board*

- 21-Meal Plan $4,026
- 14-Meal Plan $3,780
  (upperclassmen only)
- 10-meal plan $2,628
  (non-residence halls)
- 5-meal plan $1,314
  (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

1. Application Fee $35/student
2. Credit by Examination $713/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

- Tuition $713
- Credit by Examination $713/course
- Application Fee $35/course
- Graduation Fee $60/student (graduates only)

Continuing & Professional Studies (Evening)

- Tuition $404
- Tuition-Online Courses $465
- Credit by Examination $404/course
- Application Fee $35/student
- Graduation Fee $60/student (graduates only)

Summer Session-2005

- Tuition $404
- Room (per six week session) $1,089
- Online $465.00

Deposits

An applicant to the undergraduate 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 Campus Store, as well as for use at the vending machines, photocopiers, and washer/dryers across campus. A deposit of $400 to $500 per semester is suggested. 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

Undergraduate 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 or 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 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%

**Continuing and Professional Studies:**
- 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 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 pro-rated 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 late registration fee is charged for any student failing to register by the specified date.

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

A $25 annual parking registration fee is charged to all eligible part-time students.

A $25 late registration fee is charged for any student failing to register by the specified date.

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 comprehensive fee is use of the Paul J. Gutman Library, Student Center, Learning and Advising Center, gymnasium 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 store, 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 or by calling the Student Accounts Office with accepted credit card information. 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 $50 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 studentaccts@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**

**Financial Aid Office** 215.951.2940
financialaid@PhilaU.edu, www.PhilaU.edu/financialaid

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), either using the form mailed to all new students, or 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 additional 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**

Go to www.aessuccess.org to complete the Federal Stafford Loan Interviews online.

**Federal Pell Grant:** A Federal Pell Grant is a grant administered by the U.S. Department of Education. Grants may range up to $4,050 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.
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 $2,625 per academic year for the freshman year, $3,500 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 variable rate of the U.S. Treasury Bill plus 3.1 percent with a cap of 8.25 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 is 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.

Applications and further information are available at Philadelphia University. Sample payment 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 variable and is tied to the prevailing interest rates on the 52-week U.S. Treasury bills plus 3.1 percent capped at nine percent. Repayment of principal and interest begins 60 days after the loan is disbursed.

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.

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.

Study Abroad Scholarship: A scholarship fund for the Study Abroad Program was established to provide financial support for eligible Philadelphia University students who participate in study-abroad opportunities. The scholarship fund was created to support the tuition expenses of currently enrolled students who receive financial aid through University-sponsored scholarship and assistance programs. Eligible students must submit an application by the published deadline to a committee of University representatives. The Financial Aid Office has 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 through 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 excellence in Architecture, Marketing, Management, Chemistry, or Computer Information Systems. Special preference will be given to a student meeting the above criteria or one who is a relative or employee of Wolanin Companies Ltd. (or any of its affiliates) and to any student who may have suffered the unexpected, sudden or accidental death of a parent. You may visit the Wolanin Companies Ltd. web site at www.wolanin.com.

**RICHARD BLEILER MEMORIAL SCHOLARSHIP**: Given to a deserving student.

**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.

**BENNETT 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.

**HOWARD C. 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.

**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 GIFT SCHOLARSHIP FUND**: For a deserving business student.

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

**FRED FORTESS TEXTILE/APPEARL 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**: For a well-deserving student with significant financial need.

**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 GOLDSTEIN 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 GOLDSTONE 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).

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.

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 dependents of AstenJohnson community employees.

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

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.

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

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

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

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

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.

WILLIAM JOSEPH MILowitz SCHOLARSHIP: For deserving and underprivileged students who meet the academic requirements of the University.

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 freshman year and will continue into succeeding years, if the recipient continues to maintain a G.P.A. above 2.5 and demonstrates a commitment to creating understanding within the University and broader community.

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.

THE JOHN L. STEEN SCHOLARSHIP/FELLOWleanup: 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.

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.
BERNARD STEUR SCHOLARSHIP: For a Textile Engineering student with a strong interest in knitting.

BERTRAM A. STROOCK SCHOLARSHIP: For a deserving student.

TEXTILE DISTRIBUTORS ASSOCIATION SCHOLARSHIP: Given to students in need of financial assistance and enrolled in Textile curricula.

MICHAEL T. SULLIVAN MEMORIAL SCHOLARSHIP: For deserving students in part-time evening programs; awarded annually.

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.

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.
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 14 intercollegiate sports competing at the NCAA Division II level: men’s and women’s basketball, cross country and tennis; men’s baseball and golf; and women’s field hockey, lacrosse, softball, volleyball and soccer. Men’s soccer competes at the Division I level.

The University holds membership in the National Collegiate Athletic Association (NCAA), the East Coast Athletic Conference (ECAC), the Central Atlantic Collegiate Conference (CACC), and the Atlantic Soccer Conference (ASC). 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 credit 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 Bucky Harris Gymnasium and at the Alumni and Ravenhill Fields. The campus also features tennis courts, a softball field and a weight/training room in the Hughes Gym. In addition, the University is building a new athletic and recreation facility that is scheduled to be completed in January 2007. Check out Athletics at Philadelphia University by visiting www.PhilaU.edu/athletics. 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 databases, job listings and résumé referrals; 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 in Hayward Hall. 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, graduating students and alumni may post résumés 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 Student Center, Room 309. 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 in 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, freshmen 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 provides information and resources that are helpful for students living off campus and/or commuting from home. Ongoing social and educational events are held throughout the academic year to ensure that commuter students feel fully connected to the University community. Newsletters and other informational resources provide commuters with tips on how to balance on-campus and off-campus activities and commitments. In addition, the Office of Residence Life provides commuter students with information on off-campus apartments and other living arrangements, through printed materials located in the office, on the department’s web site, and at the annual Spring Off-Campus Housing Fair.

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 dining hall on the Ravenhill Campus provides students with a large variety of meal selections, including many healthy choices, with unlimited seconds. It is open regular hours during the day and for late-night service Monday through Thursday, 8 to 11 p.m.

The Common Thread located in Althouse Hall offers a la carte purchases and is open during the week Monday to Thursday until 8 p.m., and Fridays until 3:30 p.m. For added flexibility, students on the board plan may use a meal-exchange option in The Common Thread.

The Tuttleman Cafe, located in the newest classroom building on campus, offers light fare, as well as Starbucks coffees.

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 as desired.

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 healthcare 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 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 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 five 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 Global Friends, 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 Student 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 Student Center, Room 205. 215.951.2741

The University provides on-campus housing for approximately 1,200 undergraduate students in traditional and apartment-style residence halls. First-year students are housed on the Ravenhill Campus, with returning and upper-class students housed primarily on the Main Campus.

Resident Assistants (undergraduate peer mentors) are assigned to each living unit to provide personal and academic support, plan social programs to foster a strong community and ensure that residents abide by the community standards. RAs are supervised by Residence Coordinators, and three professional, master’s-level staff members provide the overall programmatic direction, manage the room-assignment process and conduct judicial hearings, when necessary. Housing on the Ravenhill Campus consists of four residence halls — Fortess Hall, Mott Hall, Partridge Hall and Ronson Hall. Students reside in rooms accommodating one to four students with community bathrooms in each building. Each building has lounge and study space, laundry facilities and a kitchenette area as space permits.

Housing on the Main Campus consists of two apartment complexes, Independence Plaza and the Townhouses, 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. The building includes laundry facilities, lounge and study spaces, and community bathrooms.

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. 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.

**Student Activities**

For information on the Program 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 lifelong 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 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 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, endowed 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 215.951.4OIT (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 1,100 University-owned desktop computers connected to the network. Each student receives an email account that includes 20 MB of mail space. A number of academic programs (Graphic 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 provides a wireless connectivity environment for students who wish to borrow a laptop computer and roam the Library while connected to the network. The computer ownership rate in the Residence Halls is above 90 percent.

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 titles such as Dreamweaver, Flash, and Director. Industrial and Digital Design students are required to learn applications such as Final Cut Pro, Maya, Rhino, Swift 3D, and Adobe titles such as Photoshop, Illustrator, 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 digital-library environment — it is the University’s Gateway to Information. Using the World Wide Web as the primary vehicle to deliver information resources to the University community, the automated catalog, important databanks such as LexisNexis Academic Universe, ProQuest, EBSCOhost and First Search, and links to Internet resources are made available as Web-based search systems. These systems can be accessed by members of the campus community from any computer on campus or from any remote location.

The University Library combines a state-of-the-art building with a comfortable, inviting work environment. Students can find privacy at individual study carrels, share one of the eight study rooms, or just relax in the student lounge areas. More than 400 seats are available for student study. With the wireless laptop program, students may borrow laptop computers to use at any study seat or lounge in the building. They may also choose from over fifty wired desktop computers throughout the building. The upper level features collaborative computing stations for group work.

The Paul J. Gutman Library is more than an information collection. Librarians work together with faculty to educate students about the digital-library environment. Promotional events and bibliographic instruction programs, aimed at creating an information-literate student body, are offered throughout the academic calendar year.

The main book collection contains more than 100,000 volumes with special emphasis in the areas of art and architecture, design, textiles, the sciences and business. A contemporary reading collection of best sellers and popular materials is also available.

Supplementing the book collection are more than 7,000 journals, trade publications and newspapers in print, electronic, and microform formats. Networked electronic databases and electronic book and journal collections offer students convenient access to this literature, as well as a growing body of electronic full-text publications online.

Publications also can be acquired through the Library’s membership in an automated interlibrary loan network linking more than 14,000 libraries around the world, or through EZBorrow, a self-service loan system for books from over 40 Pennsylvania academic libraries.

**The Design Center at Philadelphia University**

The Design Center 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 www.PhilaU.edu/designcenter. During exhibitions gallery hours vary.

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 broadening 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.

**Overview of the College Studies Program**

The College Studies Program at Philadelphia University is distinguished by the following:

- College Studies aims to help students understand the political, economic and cultural context of their professions. This critical perspective on the professions develops in concert with students’ studies in their major. Connections are made between the liberal arts and sciences and issues in the professions.
- College Studies offers both core courses (taken by all students) and courses that students may elect from within groups. Core courses promote a common academic experience among all students, and group electives offer opportunities for individual explorations.
- Recognizing the need for effective communication skills, College Studies has a strong “Writing Across the Curriculum” program consisting of both writing courses and other courses in which writing is an important element.
- Students work with the major modes of knowledge; the nature of the scientific method, for example, or the methods of analysis used by social scientists.
- Courses promote understanding of the connections among the disciplines. Courses are often interdisciplinary or multidisciplinary.
- Students learn the implications of a multicultural society and its impact upon the workplace in the United States, as well as the international economy.
- College Studies provides an extended focus on international and global issues. Students can undertake study in foreign languages designed for professional people and also regional or area studies designed to promote an understanding of the increasingly interdependent world.
• Students learn effective research skills and how to evaluate information from a variety of sources, with a special emphasis on information technology.
• A bachelor’s degree program provides students with a broad-based educational experience. Students explore a body of knowledge skills and ways of obtaining knowledge that are common to higher education in all majors. The College Studies courses accomplish this goal.

**College Studies Program**

**YEAR ONE**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>L111</td>
<td>Writing Seminar I</td>
<td>3</td>
</tr>
<tr>
<td>L17( )</td>
<td>Historical Understanding I</td>
<td>3</td>
</tr>
<tr>
<td>L121</td>
<td>Environmental Science or</td>
<td>3</td>
</tr>
<tr>
<td>L321</td>
<td>Chemistry I (check major requirements)</td>
<td>4</td>
</tr>
<tr>
<td>L130/1 + L132</td>
<td>Quantitative Reasoning I + II or</td>
<td>4</td>
</tr>
<tr>
<td>L135 + L132</td>
<td>Quantitative Reasoning I + II or</td>
<td>6-8</td>
</tr>
<tr>
<td>L135 + L141</td>
<td>Quantitative Reasoning I + II or</td>
<td>6-8</td>
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<td>6-8</td>
</tr>
<tr>
<td>L( )</td>
<td>Arts and Cultures (may be taken any year)</td>
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**YEAR TWO**

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<td>L36( )</td>
<td>Social Sciences I</td>
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</tr>
<tr>
<td>L( )</td>
<td>Language or Area Studies</td>
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**YEAR THREE**

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<tr>
<td>L38( )</td>
<td>Humanities I (may be taken in Year Two or Three)</td>
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<tr>
<td>L66( ) /L67( )/L68( )</td>
<td>Interdisciplinary Courses</td>
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(Select from several versions/writing intensive)

**YEAR FOUR**

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<tbody>
<tr>
<td>L911</td>
<td>Contemporary Perspectives (writing intensive)</td>
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**COLLEGE STUDIES TOTALS** 46-51

**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 undergraduates. 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 for Continuing and Professional Studies 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 L911 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

Writing effectively is an important skill to be learned over time and requires careful reading, writing exercises, and reflecting. To facilitate this, Philadelphia University has designed a Writing Across the Curriculum Program that offers varied and rich experiences with language. Students refine their writing skills by taking two writing-specific and at least four writing-intensive courses between the first and fourth years. These include at least three writing-intensive courses in the College Studies program and at least one in their major. Honors writing courses and English as a Second Language writing courses complement the list of offerings in College Studies. Throughout the campus community, students also have opportunities to pursue academic and professional writing in a range of co- and extra-curricular settings. Professional writing tutors on the staff of the Learning and Advising Center provide support to student writers in all subjects and at all levels. In essence, the Writing Across the Curriculum Program gives students the opportunity to build and integrate the skills necessary for writing effectively as a student and in the workplace.

In writing courses, as well as in other learning contexts across the curriculum, the faculty acknowledge the value of writing as a communication tool. Writing also serves to help students explore and expand upon the content of their courses. As a result, many faculty assign a variety of informal writing in and out of class. Students learn to write formally as well, often through successive drafting and revising in interactive and supportive environments. To further improve their communication skills, students read and write about — and in — the language and styles and formats of writing associated with their specific discipline or profession. Faculty integrate new technologies into their courses to enhance student learning and to help students gain experience with a broad variety of writing requirements in academic and professional arenas.

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 Achievement Program/Act 101

The Academic Achievement Program/Act 101 provides academic support services for students whose academic backgrounds and/or life circumstances indicate they are likely to succeed within a structured learning environment. 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. Students receive comprehensive academic and personal support services designed to facilitate their retention and ultimate graduation from the University. Their academic performance is monitored from matriculation to graduation and appropriate intervention strategies are recommended when the need exists.

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 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.

Transfer Advising

The transfer advisor acts as a contact person for all incoming day transfer students. The transfer advisor determines how courses, which have transferred from other institutions, are applied for credit toward a student’s chosen major. The transfer advisor can also answer students’ questions about the application of credits from other institutions.

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:
• **Math:** Professional and peer tutoring is available for all levels of math courses.

• **Writing:** 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.

• **Reading/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.

• **Peer 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 majors, take a leave of absence, or withdraw from the University. The Learning and Advising Center also clarifies academic policy for faculty, staff and students.
School of Architecture

Dean: G.J. Crowell  
Director, Architecture Program: G.J. Crowell  
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
- Joint Bachelor of Science in Architectural Studies/M.B.A. Program
- Four-Year Bachelor of Science in Interior Design
- Five-Year Bachelor of Landscape Architecture (B.L.A.)
- Joint Degree Program

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 and 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 the Architecture, Landscape Architecture, and Interior Design.

The four-year Bachelor of Science in Interior Design program prepares graduates to be articulate, creative and socially aware design professionals. Specific highlights of the program include accreditation by the Foundation for Interior Design Education and Research (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 responses and solutions to site problems and opportunities. 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 include 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.

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**
- **L111** Writing Seminar I 3
- **L121** Environmental Science (Fall) 3
- **L17** Historical Understanding I 3
- **L135 + L132** Quantitative Reasoning I + II or 6-8
- **L135 + L141** Quantitative Reasoning I + II or
- **L141 + L142** Quantitative Reasoning I + II
- **L313** Science II: General Physics (Spring) 3

**Major Core**
- **A111** Design I: Interdisciplinary Foundation Studies (Fall) 4
- **A112** Design II: Interdisciplinary Foundation Studies (Spring) 4
- **T712** Drawing I (Fall) 3

**Designated Electives**
- Designated Visualization Elective (Spring) (select one) A122, A123, A124, A125, LA122 3

**Physical Education**
- Physical Education I 0.5
- Physical Education II 0.5

**Credit Total** 33-35

### SECOND YEAR

**College Studies**
- **L36( )** Social Sciences I 3
- **L61( )** Writing Seminar II (L612 recommended) 3
- **L( )** Language or Area Studies I 3

**Major Core**
- **A311** Design III: for Architecture and Landscape Foundation Studies (Fall) 4
- **A312** Design IV: Architecture Foundation Studies (Spring) 4
- **A321** Visualization I: Digital Modeling 3
- **A331** History of Architecture and Interiors I (Fall) (fulfills College Studies Arts and Culture Requirement) 3
- **A332** History of Architecture and Interiors II (Spring) 3
- **A341** Technology I: Material and Methods (Fall) 3
- **A342** Technology II: Systems and Sustainability (Spring) 3

**Credit Total** 32

### THIRD YEAR

**College Studies**
- **L38( )** Humanities I 3
- **L66( )** Level II College Studies 3
- **L68( )** Level II College Studies 3
- **L( )** Language or Area Studies II 3

**Major Core**
- **A511** Design V: Architecture and Landscape Studio 5
- **A512** Design VI: Architecture Studio 5
- **A531** History of Architecture and Interiors III (Fall) 3
- **A532** History of Architecture and Interiors IV (Spring) 3
- **A541** Structures I (Fall) 2
- **A542** Structures II (Spring) 2

**Credit Total** 32

### FOURTH YEAR

**College Studies**
- **L911** Contemporary Perspectives 4

**Major Core**
- **A712** Design VIII: Architecture Studio 6
- **A741** Technology III: Lighting and Acoustics (Fall) 3
- **A742** Technology IV: Dynamic Systems (Spring) 3
- **A743** Structures III (Fall) 2
- **A744** Structures IV (Spring) 2
- **A622** Visualization II: Technical Documentation 3

**Designated Electives**

****Architecture Elective** 3

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

**Credit Total** 35

### FIFTH YEAR

**Major Core**
- **A811** Design IX: Architecture Studio (Fall) 6
- **A812** Design X: Architecture Studio (Spring) 6
- **A845** Technology V: Advanced Lab (Fall) 3
- **A851** Professional Management I (Fall) 2
- **A852** Professional Management II (Spring) 2

**Free Elective**
- Elective 3
- 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 concentration (12 credit-hour minimum) in addition to required Architecture, College Studies and elective courses. Minor concentrations should be selected from the catalog list or designed individually with the advisor as a custom minor. Students should plan their minor concentrations with the assistance of their academic advisors. Minor concentrations must be approved by the student’s academic advisor and program director.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
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<td>L121 Environmental Science (Fall)</td>
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<tr>
<td>L135 + L132 Quantitative Reasoning I + II or 6-8</td>
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<td>L141 + L142 Quantitative Reasoning I + II</td>
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<td>T712 Drawing I (Fall)</td>
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**SECOND YEAR**

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<tr>
<td>L36( ) Social Sciences I</td>
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<tr>
<td>L61( ) Writing Seminar II</td>
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<td>A321 Visualization I: Digital Modeling</td>
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<td>A331 History of Architecture and Interiors I (Fall) (fulfills College Studies Arts and Culture Requirement)</td>
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<td>A332 History of Architecture and Interiors II (Spring)</td>
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**THIRD YEAR**

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<td>*A541 Structures I (Fall)</td>
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**FOURTH YEAR**

**College Studies**

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<tr>
<td>L911 Contemporary Perspectives</td>
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**Designated Electives**

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**Minor Concentration**

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**Free Elective**

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**Credit Total** 31

**DEGREE TOTAL** 125-127

The following course substitutions are allowed with approval from the student’s advisor and the program director:

1. A741, A742 or A745 substituted for A541
2. A346 substituted for A541

* These courses will be different for the Pre-M.B.A. option

**Arch/ID Electives (approved by advisor and program director)**
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 concentration is composed of a sequence 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.

Also note that after two years of study, Interior Design majors may switch to the Joint B.S. in Architectural Studies/M.B.A. program if desired, since the Interior Design courses are similar during the first two years.

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

**FIRST YEAR**

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**SECOND YEAR**

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**THIRD YEAR**

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<td>Pre-MBA Minor Concentration</td>
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<tr>
<td>B123 Principles of Management</td>
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<td>B221 Principles of Marketing</td>
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**FOURTH YEAR**

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<td>B141 Operations Management</td>
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<td>B642 Financial Management</td>
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<td>MF03 Foundations of Economic Analysis</td>
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<td>MF04 Financial &amp; Managerial Accounting</td>
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<td>MF08 Statistical Analysis for Business</td>
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<td>MB25 Management Communications and Negotiations</td>
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<td>MB28 Accounting for Management Decisions</td>
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**B.S. DEGREE TOTAL** 126-128 CREDITS

**FIFTH YEAR**

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<td>MB27 Management of Information Through Technology</td>
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<td>MB29 Financial Policy &amp; Planning</td>
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<td>MB30 Advanced Operations Management</td>
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<td>MB32 Strategic Marketing Management</td>
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<tr>
<td>MB42 Strategic Planning in a Global Environment</td>
<td>3</td>
</tr>
<tr>
<td>Designated Electives**</td>
<td></td>
</tr>
<tr>
<td>MBxx International Elective</td>
<td>3</td>
</tr>
<tr>
<td>Credit Total</td>
<td>27</td>
</tr>
</tbody>
</table>

**JOINT B.S./M.B.A. TOTAL** 153-155 CREDITS

**Designated Electives (approved by advisor and program director)**
Interior Design

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, success as an interior design professional 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 in 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 Foundation for Interior Design Education Research (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.

Taught both in traditional drawing and computer-aided methods, students are able to present their design ideas with an extensive professional portfolio. 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 such as 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>
</tr>
</thead>
<tbody>
<tr>
<td>L111 Writing Seminar I</td>
</tr>
<tr>
<td>L121 Environmental Science (Fall)</td>
</tr>
<tr>
<td>L17( ) Historical Understanding I</td>
</tr>
<tr>
<td>L130/1 + L132 Quantitative Reasoning I + II or L135 + L132 Quantitative Reasoning I + II</td>
</tr>
<tr>
<td>L135 + L141 Quantitative Reasoning I + II or L141 + L142 Quantitative Reasoning I + II</td>
</tr>
<tr>
<td>L313 Science II: General Physics (Spring)</td>
</tr>
</tbody>
</table>

**Major Core**

| A111 Design I: Interdisciplinary Foundation Studies (Fall) | 4 |
| A112 Design II: Interdisciplinary Foundation Studies (Spring) | 4 |
| A123 Technical Drawing & Graphic Representation (Spring) | 3 |
| T712 Drawing I (Fall) | 3 |

**Physical Education**

| Physical Education I | 0.5 |
| Physical Education II | 0.5 |

| Credit Total | 33-35 |

**SECOND YEAR**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>L36( ) Social Sciences I</td>
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<tr>
<td>L61( ) Writing Seminar II (L612 recommended)</td>
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<tr>
<td>L( ) Language or Area Studies I</td>
</tr>
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</table>

**Major Core**

| A315 Design III for Interior Design (Fall) | 4 |
| A316 Design IV for Interior Design (Spring) | 4 |
| A321 Visualization I: Digital Modeling | 3 |
| A331 History of Architecture and Interiors I (Fall) fulfills College Studies Arts and Culture Requirement | 3 |
| A332 History of Architecture and Interiors II (Spring) | 3 |
| A341 Technology I: Materials and Methods (Fall) | 3 |
| A346 Interior Building Technology (Spring) | 3 |

| Credit Total | 32 |

**THIRD YEAR**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>L38( ) Humanities I</td>
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<tr>
<td>L66( )/L67( )/L68( ) Level II College Studies</td>
</tr>
<tr>
<td>L( ) Language or Area Studies II</td>
</tr>
</tbody>
</table>

**Major Core**

| A515 Design V for Interior Design (Fall) | 6 |
| A516 Design VI for Interior Design (Spring) | 6 |
| A526 Textiles & Materials for Interiors & Architecture (Spring) | 3 |
| A531 History of Architecture and Interiors III (Fall) | 3 |
| A532 History of Architecture and Interiors IV (Spring) | 3 |
| A745 Interior Building Systems (Fall) | 3 |

| Credit Total | 36 |
## FOURTH YEAR

**College Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>L911</td>
<td>Contemporary Perspectives</td>
<td>4</td>
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**Major Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>A625</td>
<td>CAD II for Interior Design (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>A715</td>
<td>Design VII for Interior Design (Fall)</td>
<td>6</td>
</tr>
<tr>
<td>A717</td>
<td>Thesis Preparation (Fall)</td>
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<tr>
<td>A718</td>
<td>Thesis in Interior Design (Spring)</td>
<td>6</td>
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<tr>
<td>A753</td>
<td>Professional Practice &amp; Contract Design (Spring)</td>
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**Free Elective**

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<thead>
<tr>
<th>Elective</th>
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<tbody>
<tr>
<td>Elective</td>
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<tr>
<td>Elective</td>
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**Designated Elective**

<table>
<thead>
<tr>
<th>ID Elective**</th>
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</table>

**Credit Total** 36

**DEGREE TOTAL** 137-139

**Designated Elective (approved by advisor and program director)
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 management, 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 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 architecture 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 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, 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 Fall 2004, the University applied for 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**
L111 Writing Seminar I 3
L121 Environmental Science (Fall) 3
L17( ) Historical Understanding I 3
L135 + L132 Quantitative Reasoning I + II or 6-8
L135 + L141 Quantitative Reasoning I + II or
L141 + L142 Quantitative Reasoning I + II
L311 Science II: General Biology (Spring) 3

**Major Core**
A111 Design I: Interdisciplinary Foundation Studies (Fall) 4
A112 Design II: Interdisciplinary Foundation Studies (Spring) 4
S461 Soil (Spring) 3
T712 Drawing I (Fall) 3

**Physical Education**
Physical Education I 0.5
Physical Education II 0.5
Credit Total 33-35

**SECOND YEAR**

**College Studies**
L36( ) Social Sciences I 3
L61( ) Writing Seminar II (L612 recommended) 3

**Major Core**
A311 Design III: Architecture and Landscape Foundation Studies (Fall) 4
A321 Visualization I: Digital Modeling 3
A331 History of Architecture and Interiors I (Fall) 3
(last College Studies Arts and Culture Requirement)
LA122 Graphics for Landscape Architecture (Fall) 3
LA312 Design IV for Landscape Architecture (Spring) 4
LA332 History of Landscape Architecture I (Spring) 3
LA341 Technology I: Grading (Fall) 3
S462 Local Flora (Spring) 3

Credit Total 32

**THIRD YEAR**

**College Studies**
L38( ) Humanities I 3
L66( ) Level II College Studies 3
L66( ) Level II College Studies 3
L( ) Language or Area Studies I 3
L( ) Language or Area Studies II 3

**Major Core**
A511 Design V: Architecture and Landscape Studio Architecture (Fall) 5
LA512 Design VI for Landscape Architecture (Spring) 5
LA521 CAD II for Landscape Architecture (Spring) 3
LA532 History of Landscape Architecture II (Fall) 3
LA550 Design and Human Behavior (Spring) 3

Credit Total 34

**FOURTH YEAR**

**College Studies**
L911 Contemporary Perspectives 4

**Major Core**
LA533 Landscape Architecture Theory: Seminar (Spring) 3
LA711 Elective Studio for Landscape Architecture (Fall) 6
LA712 Design VIII for Landscape Architecture (Spring) 6
LA741 Technology II: Materials and Methods (Fall) 3
LA742 Technology III: Hydrology (Spring) 3
S233 Ecology (Fall) 4
S463 Plant Field Ecology (Spring) 4

Credit Total 33

**FIFTH YEAR**

**Major Core**
A851 Professional Management I (Fall) 2
LA810 Thesis Preparation and Research for Landscape Architecture 3
LA811 Design IX for Landscape Architecture (Fall) 6
LA812 Design X for Landscape Architecture (Spring) 6
LA841 Technology IV: Construction Documents 3
LA852 Professional Management for LA (Spring) 2

**Designated Electives**
Concentration Elective * 3
Concentration Elective * 3
Concentration Elective * 3
Concentration Elective * 3

Credit Total 34

**DEGREE TOTAL 167-169**

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

Dean: E.R. Alexander
Associate Dean: L.C. Russow
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, we integrate these three components of business education. 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 more than 25 academicians. Over seventy percent of these professors hold a doctorate in their fields 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
- International Business
- Management
- Management Information Systems
- Marketing

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

Within the framework of its core courses, common to all business majors, the School systematically guides students through increasing levels of comprehension and competence in the areas of communication, global perspectives, ethical discernment, computer technology, analytical ability and professional behavior. Beginning with the introduction of fundamental concepts and proceeding throughout the four-year sequence, these competencies are developed, reinforced and integrated across all major areas of study.

The School offers unique interdisciplinary majors, such as Fashion Merchandising, that link extensive business education with professional study in other schools of the University. Small class sizes foster close collaboration between faculty and students and allow a synergy between teaching and active learning with consistent exposure to, and linkages with, industry. The School is committed to making available to its students varied opportunities for experiential learning, such as internship and study-abroad experiences, to provide its graduates with a comprehensive foundation for both professional and personal success.

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:

- B122 Introduction to Information Systems
- B123 Principles of Management
- B141 Operations Management
- B151 Statistics I
- B152 Statistics II
- B171 Business Policy and Strategy
  (Fashion Merchandising majors substitute B180)
- B221 Principles of Marketing
- B403 Financial Accounting
- B421 Business Law I
B423 Managerial Accounting  
B642 Financial Management  
E821 Macroeconomics  
E822 Microeconomics

Business+  
Learn business by doing. Business+ students will work side-by-side with their classmates in four courses in their freshman year — Financial Accounting, Management Information Systems, Managerial Accounting and Introduction to Marketing. Guided by professors and executives from an innovative local business, you will apply what is learned in class to real on-going projects at the company. Projects might involve constructing a business plan for entering a new market, extending a brand, or bringing a new product line to the marketplace. In addition to the knowledge and guidance you will gain while learning from your professors, you will have the unique bonus of working alongside executives who will serve as mentors and consultants throughout your freshman year. You will experience business challenges as they take place in an established company — a complex mixture of resources, marketing, logistics and personnel.

Project-based Business+ is appropriate for all business majors entering Philadelphia University. The practical experience will integrate expertise from accounting and global enterprise to marketing and management. As an aspiring accountant, marketer, MIS or other business professional, you will begin to practice your role in business operations or perhaps discover one you never imagined.

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 “Minor Concentrations.”

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):**
  - B403 Financial Accounting
  - E821 Macroeconomics and/or
  - E822 Microeconomics

- Choose additional courses to total 12 credits from:
  - B421 Business Law I
  - B423 Managerial Accounting  
    (prerequisite B403)
  - B642 Financial Management  
    (prerequisites B403, and B151 or M141)

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**

<table>
<thead>
<tr>
<th>College Studies</th>
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</thead>
<tbody>
<tr>
<td>L111 Writing Seminar I</td>
</tr>
<tr>
<td>L121 Environmental Science</td>
</tr>
<tr>
<td>( ) Arts and Culture</td>
</tr>
<tr>
<td>L17() Historical Understanding I</td>
</tr>
<tr>
<td>L130/1 + L132 Quantitative Reasoning I + II or L135 + L132 Quantitative Reasoning I + II or L135 + L141 Quantitative Reasoning I + II or L141 + L142 Quantitative Reasoning I + II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>B122 Introduction to Information Systems (Fall)</td>
</tr>
<tr>
<td>B221 Principles of Marketing (Spring)</td>
</tr>
<tr>
<td>B403 Financial Accounting (Fall)</td>
</tr>
<tr>
<td>B423 Managerial Accounting (Spring)</td>
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<table>
<thead>
<tr>
<th>Physical Education</th>
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<tbody>
<tr>
<td>Physical Education I</td>
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<tr>
<td>Physical Education II</td>
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| Credit Total | 31-33 |

**SECOND YEAR**

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<tr>
<td>L3() Science II</td>
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<tr>
<td>L36() Social Sciences I</td>
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<tr>
<td>L61x Writing Seminar II</td>
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<td>( ) Language or Area Studies I</td>
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<tr>
<th>Business Core</th>
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</thead>
<tbody>
<tr>
<td>B151 Statistics I (Fall)</td>
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| B152 Statistics II (Spring) | 3 |
| E822 Microeconomics | 3 |
| E821 Macroeconomics | 3 |

<table>
<thead>
<tr>
<th>Major Core</th>
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<tbody>
<tr>
<td>B441 Intermediate Accounting I (Fall)</td>
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<tr>
<td>B442 Intermediate Accounting II (Spring)</td>
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| Credit Total | 30-31 |

**THIRD YEAR**

<table>
<thead>
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<th>College Studies</th>
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<tr>
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<td>L66( )/L67( )/L68( ) Level II College Studies</td>
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<td>L66( )/L67( )/L68( ) Level II College Studies</td>
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<td>( ) Language or Area Studies II</td>
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<table>
<thead>
<tr>
<th>Business Core</th>
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<tbody>
<tr>
<td>B123 Principles of Management</td>
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<tr>
<td>B421 Business Law I</td>
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<tr>
<td>B642 Financial Management</td>
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<thead>
<tr>
<th>Major Core</th>
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<tbody>
<tr>
<td>B443 Accounting Theory and Practice</td>
</tr>
<tr>
<td>B461 Cost Accounting I</td>
</tr>
<tr>
<td>B463 Federal Taxes I</td>
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<table>
<thead>
<tr>
<th>Minor Concentration</th>
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</thead>
<tbody>
<tr>
<td>Courses in the minor, except for pre-M.B.A., may be taken during the third year</td>
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| Credit Total | 30 |

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
<td>L911 Contemporary Perspectives</td>
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<thead>
<tr>
<th>Business Core</th>
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<tbody>
<tr>
<td>B141 Operations Management</td>
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<tr>
<td>B171 Business Policy and Strategy</td>
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<thead>
<tr>
<th>Major Core</th>
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<tbody>
<tr>
<td>B464 Auditing (Fall)</td>
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<tr>
<td>B465 Advanced Accounting (Spring)</td>
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<table>
<thead>
<tr>
<th>Minor Concentration</th>
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<tbody>
<tr>
<td>Minor Concentration or Elective</td>
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<td>Minor Concentration or Elective</td>
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<thead>
<tr>
<th>Minor Concentration</th>
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</thead>
<tbody>
<tr>
<td>Free Electives</td>
</tr>
<tr>
<td>Elective or Internship</td>
</tr>
</tbody>
</table>

| Credit Total | 31 |

| DEGREE TOTAL | 122-125 |
Fashion Merchandising

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 freshman 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.

FIRST YEAR

<table>
<thead>
<tr>
<th>College Studies</th>
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<tbody>
<tr>
<td>L111 Writing Seminar I</td>
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<tr>
<td>L121 Environmental Science</td>
<td>3</td>
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<tr>
<td>L17( ) Historical Understanding I</td>
<td>3</td>
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<td>B403 Financial Accounting (fall)</td>
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SECOND YEAR

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THIRD YEAR

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<td>B251 Merchandise Buying/Operations</td>
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FOURTH YEAR

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<td>B180 Textile, Retail and Apparel Business Policy and Strategy</td>
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<td>B240 Marketing Communications</td>
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<td>B2xx Product Dev. &amp; Marketing</td>
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<td>T729 Design Concepts for Fashion</td>
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<td>Credit Totals</td>
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DEGREE TOTAL 122-125
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, more than in any other area.

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
- L111 Writing Seminar I 3
- L121 Environmental Science 3
- ( ) Arts and Culture 3
- L17( ) Historical Understanding I 3
- L130/1 + L132 Quantitative Reasoning I + II or 6-8
- L135 + L141 Quantitative Reasoning I + II or
- L141 + L142 Quantitative Reasoning I + II

Business Core
- B122 Introduction to Information Systems (Fall) 3
- B221 Principles of Marketing (Spring) 3
- B403 Financial Accounting (Fall) 3
- B423 Managerial Accounting (Spring) 3

Physical Education
- Physical Education I 0.5
- Physical Education II 0.5

Credit Total 31-33

SECOND YEAR

College Studies
- L3( ) Science II 3-4
- L36( ) Social Sciences I 3
- L( ) Language or Area Studies I 3
- L61x Writing Seminar II 3

Business Core
- B151 Statistics I (Fall) 3
- B152 Statistics II (Spring) 3
- E821 Macroeconomics 3
- E822 Microeconomics 3

Minor/Internship/free electives 6

Credit Total 30-31

THIRD YEAR

College Studies
- L66( )/L67( )/L68( ) Level II College Studies 3
- L66( )/L67( )/L68( ) Level II College Studies 3
- L( ) Language or Area Studies II 3
- L38( ) Humanities I 3

Business Core
- B421 Business Law I 3
- B123 Principles of Management 3
- B642 Financial Management 3

Major Core
- B651 Investments and Portfolio Management (Spring) 3
- Select one of the following: B641 (Fall), E843 (Spring) 3
- Advanced Finance Elective* 3

Credit Total 30

FOURTH YEAR

College Studies
- L911 Contemporary Perspectives 4

Business Core
- B141 Operations Management 3
- B171 Business Policy and Strategy 3

Major Core
- B643 Intermediate Financial Management (Spring) 3
- B663 Finance Seminar (Fall) 3

Minor Concentration
- Minor Concentration 3
- Minor Concentration 3
- Minor Concentration 3
- Minor Concentration 3

Free Electives
- Elective or Internship 3

Credit Total 31

DEGREE TOTAL 122-125

*Advanced Finance Electives: select one B633, B641, B645, B699, E843
International Business

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).

Foreign Language and Area Studies

Students 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.”

Below is a suggested distribution:

- Language Studies I
- Language Studies II
- Language Studies III
- Language Studies IV
- Area Studies (choose from L351, L352, L353)

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

Business Core

International Business Major Concentration

- B168 International Management
- B244 International Marketing
- B645 International Finance and Development
- E864 International Economics

**Secondary Major Concentration** (select one, four-course option)

- Accounting (B441 substituted for B423)
- B442, B443 (required) and two additional courses from the following (#) B461, B463, B464, B465
- Finance
- B641 or E843, and B643, and B661 (required) and one course from the following (#) B633, B641, B663, E842, E843
- Management
- B162, B172, IS16 (required) and one course from the following (#) B144, B145, B147, B161, B170, B176, B199, B791, H831, H832, IS11, IS13
- Marketing
- B231, B240, B261 (required) and one course from the following (#) B233, B241, B243, B251, B299

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

**FIRST YEAR**

College Studies

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
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<tr>
<td>L121  Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>L17( ) Historical Understanding I</td>
<td>3</td>
</tr>
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<td>L( ) Language (l)</td>
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<tr>
<td>L130/L132 Quantitative Reasoning I + II</td>
<td>6-8</td>
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**SECOND YEAR**

College Studies

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<th>Course</th>
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<tr>
<td>L3( ) Science II</td>
<td>3-4</td>
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<tr>
<td>( ) Arts and Culture</td>
<td>3</td>
</tr>
<tr>
<td>L61( ) Writing Seminar II</td>
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</tbody>
</table>

Philadelphia University
### Business Core
- **B151** Statistics I (Fall) 3
- **B152** Statistics II (Spring) 3
- **E821** Macroeconomics 3
- **E822** Microeconomics 3

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

**Credit Total** 30-31

#### THIRD YEAR

**College Studies**
- L38( ) Humanities I 3
- L66( )/L67( )/L68( ) Level II College Studies 3
- L66( )/L67( )/L68( ) Level II College Studies 3

**Business Core**
- B123 Principles of Management 3
- B421 Business Law I 3
- B642 Financial Management 3

**Major Core**
- L( ) Language IV 3
- L( ) Language V 3
- B168 International Management 3
- B244 International Marketing 3

**Credit Total** 30

**Third Year Summer**
- B100 International Business Studies Abroad (Summer) 4-6

### FOURTH YEAR

**College Studies**
- L911 Contemporary Perspectives 4

**Business Core**
- B141 Operations Management 3
- B171 Business Policy and Strategy 3

**Major Core**
- B645 International Finance and Development 3
- E864 International Economics 3

**Second Major Concentration**
- Secondary Major Concentration ** 3
- Secondary Major Concentration ** 3
- Secondary Major Concentration ** 3
- Secondary Major Concentration ** 3

**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.

**Extra: (these courses do not count toward graduation)**
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 to manage linkages in the organizational supply chain; helping to manage information flows; and helping to 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**

College Studies

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**SECOND YEAR**

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**FOURTH YEAR**

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<td>Survey of E-Commerce (Spring)</td>
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**DEGREE TOTAL**

**122-125**

*May not minor in Human Resource Management or Organizational Behavior*
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**
- L111 Writing Seminar I 3
- L121 Environmental Science 3
- ( ) Arts and Culture 3
- L17( ) Historical Understanding I 3
- L130/1 + L132 Quantitative Reasoning I + II or 6-8
- L135 + L132 Quantitative Reasoning I + II or
- L135 + L141 Quantitative Reasoning I + II or
- L141 + L142 Quantitative Reasoning I + II

**Major Core**
- B122 Introduction to Information Systems (Fall) 3
- B221 Principles of Marketing (Spring) 3
- B403 Financial Accounting (Fall) 3
- B423 Managerial Accounting (Spring) 3

**Physical Education**
- Physical Education I 0.5
- Physical Education II 0.5

**Credit Total** 31-33

**SECOND YEAR**

**College Studies**
- L3( ) Science II 3-4
- L36( ) Social Sciences I 3
- L( ) Language or Area Studies I 3
- L61( ) Writing Seminar II 3

**Business Core**
- B151 Statistics I (Fall) 3
- B152 Statistics II (Spring) 3
- E821 Macroeconomics 3
- E822 Microeconomics 3

**Major Core**
- IS16 Management Information Systems 3
- IS12 Programming for Problem Solving 3

**Credit Total** 30-31

**THIRD YEAR**

**College Studies**
- L( ) Language or Area Studies II 3
- L38( ) Humanities I 3
- L66( )/L67( )/L68( ) Level II College Studies 3
- L66( )/L67( )/L68( ) Level II College Studies 3

**Business Core**
- B123 Principles of Management 3
- B421 Business Law I 3
- B642 Financial Management 3

**Major Core**
- IS11 Database Analysis, Design and Management 3
- IS74 Information Systems Design 3

**Free Electives**
- Elective/minor or Internship 3

**Credit Total** 30

**FOURTH YEAR**

**College Studies**
- L911 Contemporary Perspectives 4

**Business Core**
- B141 Operations Management 3
- B171 Business Policy and Strategy 3

**Major Core**
- IS13 Computer Networking 3
- IS14 Software Engineering 3
- IS15 Data Analysis for Decision Making 3

**Minor Concentration**
- Minor Concentration or Elective 3
- Minor Concentration or Elective 3
- Minor Concentration or Elective 3
- Minor Concentration or Elective 3

**Credit Total** 31

**DEGREE TOTAL** 122-125
Marketing

Marketing is the cornerstone of all successful organizations. Businesses and nonprofit 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, textile marketing, 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

College Studies
L111 Writing Seminar I 3
L121 Environmental Science 3
() Arts and Culture 3
L17() Historical Understanding I 3
L130/1 + L132 Quantitative Reasoning I + II or 6-8
L135 + L132 Quantitative Reasoning I + II or
L135 + L141 Quantitative Reasoning I + II or
L141 + L142 Quantitative Reasoning I + II

Major Core
B122 Introduction to Information Systems (Fall) 3
B221 Principles of Marketing (Spring) 3
B403 Financial Accounting (Fall) 3
B423 Managerial Accounting (Spring) 3

Physical Education
Physical Education I 0.5
Physical Education II 0.5
Credit Total 31-33

SECOND YEAR

College Studies
L3() Science II 3-4
L36() Social Sciences I 3
L() Language or Area Studies I 3
L61() Writing Seminar II 3

Business Core
B151 Statistics I (Fall) 3
B152 Statistics II (Spring) 3
E821 Macroeconomics 3
E822 Microeconomics 3

Major Core
B231 Consumer Behavior 3

Free Electives
Elective 3
Credit Total 30-31

THIRD YEAR

College Studies
L() Language or Area Studies II 3
L36() Humanities I 3
L66( )/L67() Level II College Studies 3
L66( )/L67() Level II College Studies 3

Business Core
B123 Principles of Management 3
B421 Business Law I 3
B642 Financial Management 3

Major Core
B240 Marketing Communications 3
Advanced Marketing Elective* 3

Free Electives
Elective/minor or Internship 3
Credit Total 30

FOURTH YEAR

College Studies
L911 Contemporary Perspectives 4

Business Core
B141 Operations Management 3
B171 Business Policy and Strategy 3

Major Core
B261 Marketing Research (Spring) 3
B262 Marketing Strategy Seminar (Spring) 3

Minor Concentration
Minor Concentration 3
Minor Concentration 3
Minor Concentration 3
Minor Concentration 3

Free Electives
Elective or Internship 3
Credit Total 31

DEGREE TOTAL 122-125

*Advanced Marketing Elective (select one) B233, B241, B243, B244, B251, B299
Joint B.S. Business/M.B.A. Program

The School of Business Administration (SBA) offers a joint Bachelor of Science Business and Master of Business Administration (B.S./M.B.A.) program to qualifying students majoring in Accounting, Fashion Merchandising, Finance, 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. 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 Undergraduate Admissions Office.

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.

FIRST YEAR
College Studies 18-20
Business Core 12
Physical Education 1
Credit Total 31-33

SECOND YEAR
College Studies 12-13
Business Core 18
Credit Total 30-31

THIRD YEAR
College Studies 12
Business Core 3
Major Core 9
Free Electives 6
Credit Total 30

FOURTH YEAR
College Studies 4
Business Core 6
Major Core 6
Pre-M.B.A Minor
MB25 Management Communications and Negotiations
MB28 Accounting for Management Decisions
Business Course (undergraduate)
Business Course (undergraduate)
Free Electives 3
Credit Total 31

B.S. DEGREE TOTALS 122-125

FIFTH YEAR
Major Core
MB26 Global Managing in the 21st Century (Fall) 3
MB27 Management of Information Through Technology (Fall) 3
MB29 Financial Policy and Planning (Spring) 3
MB30 Quantitative Methods in Decisions (Fall) 3
MB32 Strategic Marketing Management (Spring) 3
MB42 Strategic Planning in a Global Environment (Spring) 3
**MB92 International Business Trip (Spring) 3
Free Electives
**MB91 Internship or MBxx Elective (Fall) 3
**MB91 Internship or MBxx Elective (Spring) 3
Credit Total 27

M.B.A. DEGREE TOTALS 149-152

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

Dean: S. Carton
Director, Graphic Design Communication Program: D. Kuronen
Director, Industrial Design Program: G.W. Unger
Director, M.S., Digital Design: T. McGee

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 three professionally related degree programs:

- 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 three 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 Design program 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 program 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 program 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.
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.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>L911</td>
<td>Contemporary Perspectives</td>
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<tr>
<td>B233</td>
<td>Marketing in an Electronic Environment (Spring)</td>
<td>3</td>
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<tr>
<td>D711</td>
<td>Digital Design III (Fall)</td>
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<tr>
<td>D712</td>
<td>Digital Design IV Interdisciplinary Capstone Project (Spring)</td>
<td>5</td>
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<tr>
<td>D714</td>
<td>Web Production (Fall)</td>
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<tr>
<td>D715</td>
<td>Actionscript and Lingo (Spring)</td>
<td>3</td>
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<tr>
<td>D763</td>
<td>Electronic Portfolio (Spring)</td>
<td>2</td>
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<tr>
<td>D810</td>
<td>Interdisciplinary Capstone Project Preparation (Fall)</td>
<td>3</td>
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<tr>
<td>D763</td>
<td>Multimedia Core</td>
<td>3</td>
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<tr>
<td>D810</td>
<td>Free Electives</td>
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<td></td>
<td>DEGREE TOTAL</td>
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</table>

*Multimedia Core (select three) D625, D627, D628, D629, D630, G644
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>
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<tbody>
<tr>
<td>L111 Writing Seminar I</td>
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<tr>
<td>L121 Environmental Science</td>
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<tr>
<td>L17( ) Historical Understanding I</td>
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<tr>
<td>L130/1 + L132 Quantitative Reasoning I + II or L135 + L132 Quantitative Reasoning I + II or L135 + L141 Quantitative Reasoning I + II or L141 + L142 Quantitative Reasoning I + II</td>
<td>6-8</td>
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<tr>
<td>Major Core</td>
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<tr>
<td>T701 Design Foundations I (Fall)</td>
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<td>T702 Design Foundations II (Spring)</td>
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<tr>
<td>T712 Drawing I (Fall)</td>
<td>3</td>
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<tr>
<td>T713 Drawing II/ Graphic Design (Spring)</td>
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<tr>
<td>T771 or T772 History of Western Art</td>
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### SECOND YEAR

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<td>L36( ) Social Sciences I</td>
<td>3</td>
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<tr>
<td>L( ) Language or Area Studies I</td>
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<tr>
<td>L3( ) Science II</td>
<td>3-4</td>
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<tr>
<td>L61( ) Writing Seminar II (L612 recommended)</td>
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<tbody>
<tr>
<td>G311 Design III for GDC (Fall)</td>
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<td>G312 Design IV for GDC (Spring)</td>
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<tr>
<td>I531 History of Design &amp; Communications</td>
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<table>
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<tbody>
<tr>
<td>B122 Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>B221 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>B403 Financial Accounting</td>
<td>3</td>
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| Credit Total | 32-33 |

### THIRD YEAR

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<tr>
<td>L38( ) Humanities I</td>
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<td>L( ) Language or Area Studies II</td>
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<tbody>
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<td>G511 Design V for GDC (Fall)</td>
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<tr>
<td>G512 Design VI for GDC (Spring)</td>
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<table>
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<tbody>
<tr>
<td>B231 Consumer Behavior</td>
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<tr>
<td>B240 Marketing Communications</td>
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<tbody>
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| Credit Total | 32-34 |

### FOURTH YEAR

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<tbody>
<tr>
<td>L15( ) Aesthetics (L152 excluded)</td>
<td>3</td>
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<tr>
<td>L911 Contemporary Perspectives</td>
<td>4</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>G711 Design VII for GDC (Fall)</td>
<td>6</td>
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<tr>
<td>G712 Capstone in GDC (Spring)</td>
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<table>
<thead>
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<td>Concentration Option*</td>
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<tr>
<td>Concentration Option*</td>
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<table>
<thead>
<tr>
<th>Free Electives</th>
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<tr>
<td>Elective or Internship</td>
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<tr>
<td>Elective or Internship</td>
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</tr>
<tr>
<td>Credit Total</td>
<td>31</td>
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</tbody>
</table>

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

(1) Design Option (grade of “C” (2.00) or better earned in G312)
G621 (required)
plus three from any combination of the following:
   (Graphic Design) G622, G626, G631, G634, G637, G641, G644, G991, G933
   (Fashion) T715, T716, T720, T721, T722, T773
   (Print) G644, T705, T706, T740, T798

(2) Business and Marketing Option
B421, E822 (required)
plus two of the following:
   B123, B241, B244, B423, B642, E821
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
L111 Writing Seminar I 3
L121 Environmental Science 3
L17( ) Historical Understanding I 3
L130/1 + L132 Quantitative Reasoning I + II or 6-8
L135 + L132 Quantitative Reasoning I + II or
L135 + L141 Quantitative Reasoning I + II or
L141 + L142 Quantitative Reasoning I + II

Major Core
I111 Design I (Fall) 4
I112 Design II (Spring) 4
I321 or I 322 Materials & Process 3
T712 Drawing I (Fall) 3
T713 Drawing II/ Graphic Design (Spring) 3

Physical Education

Physical Education I 0.5

Credit Total 32.5 - 34.5

SECOND YEAR

College Studies
L313 Science II: General Physics 3
L36( ) Social Sciences I 3
L61( ) Writing Seminar II (L612 recommended) 3
L( ) Language or Area Studies I 3

Major Core
I311 Design III for Industrial Design (Fall) 4
I312 Design IV for Industrial Design (Spring) 4
I321 or I322 Materials & Process 3
I342 or I332 CAD I: InD or Ergonomic Studies 3
I351 Rendering for Industrial Design 3
T771 History of Western Art I 3

Physical Education

Physical Education II 0.5

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 free-hand 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 (A791) 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
L38( ) Humanities I 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L( ) Language or Area Studies II 3

Major Core
I342 or I332 CAD I: InD or Ergonomic Studies 3
I511 Design V for Industrial Design (Fall) 4
I512 Design VI for Industrial Design (Spring) 6
I531 Hist. of Des. & Commun. (Fall preferred) 3
T772 History of Western Art II 3
T532 Design History and Theory 3

Free Elective

Elective 3
Elective 3
Credit Total 34
At this time a summer internship (A791) 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**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>L66( )/L67( )/L68( )</td>
<td>Interdisciplinary Course</td>
<td>3</td>
</tr>
<tr>
<td>L911</td>
<td>Contemporary Perspectives</td>
<td>4</td>
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</table>

**Major Core**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>I711</td>
<td>Design VII for Industrial Design (Fall)</td>
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<tr>
<td>I712</td>
<td>Design VIII for Industrial Design (Spring)</td>
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<tr>
<td>I851</td>
<td>Professional Practice I (Fall)</td>
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<td>I862</td>
<td>Professional Practice II (Spring)</td>
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**Free Elective**

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<table>
<thead>
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<th>3</th>
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</thead>
</table>

**Credit Total**

| Credit Total | 31 |

**DEGREE TOTAL**

| Degree Total  | 130-132 |

**RECOMMENDED ELECTIVES:** I621 CAD II, Digital Design Techniques and I633 Drawing III, Design Development.

Also: G622 Studio Photography, G626 Digital Imaging (Photoshop), D628 Multimedia Design, D629 Digital Video Design and Production, D630 Modeling and Animation, T205 Introduction to Materials Science
School of Engineering and Textiles

Dean: D.S. Brookstein
Assistant Dean: M.S. Oravetz
Director, M.S., Ph.D. Programs, Textiles: B. George
Director, Apparel Manufacturing Laboratory: M. Wiener
Director, Grundy Testing Laboratory: H.J. Barndt
Director, Fashion Design Program: C. Prezio-Henry
Program Coordinators:
  - Engineering Programs: F. Tovia
  - Fashion Industry Management: J.A. Rosenau
  - Foundation Drawing and Design: K. Demarco
  - Textile Design: M. Goutmann
  - Textile Engineering Technology: J. 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. For instance, our cutting-edge B.S. in Engineering program has specialty study opportunities in architectural, environmental, mechanical, industrial and textile engineering. The B.S. in 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.

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:
- Engineering with minor concentrations in either architectural, environmental, industrial, mechanical or textile engineering
- Fashion Design
- Fashion Industry Management
- Industrial and Systems Engineering
- Textile Design
- Joint B.S./M.S. Textile Design
- Textile Engineering Technology
- Joint B.S. Textile Engineering Technology/M.B.A.

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. 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 tailor the program to their own specific needs by selection, with the assistance of their advisor, of an appropriate minor track of courses. The resulting curriculum achieves a balance between science, engineering, the liberal arts and business to provide an understanding of the economic and social implications of engineering activity, and to develop creative talents.

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 three semesters enabling the student to make a choice of concentration in their sophomore year.

FIRST YEAR

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<thead>
<tr>
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<tbody>
<tr>
<td><strong>L111</strong> Writing Seminar</td>
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<td><strong>L117( )</strong> Historical Understanding I (Spring)</td>
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<tr>
<td><strong>L141</strong> Calculus I (Fall)</td>
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<tr>
<td><strong>L142</strong> Calculus II (Spring)</td>
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<tr>
<td><strong>( )</strong> Arts and Culture</td>
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<tr>
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<thead>
<tr>
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| Credit Total                    | 33         |
# Engineering Minors

## Textile Engineering

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<tr>
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<td>Textile Engineering I: Linear Assemblies (Fibers and Yarns)</td>
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<td>EN606</td>
<td>Textile Engineering II: Planar Assemblies</td>
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<td>EN607</td>
<td>Textile Engineering III: Nonwovens and Chemical Processing</td>
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<tr>
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<td>Textile Engineering IV: Advanced Fibrous Materials</td>
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## Industrial and Systems Engineering

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<tr>
<td>EN617</td>
<td>Production Planning and Control</td>
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<tr>
<td>EN711</td>
<td>Simulation</td>
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<td>EN814</td>
<td>Manufacturing Quality Control</td>
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## Mechanical Engineering

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## Architectural Engineering

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<td>Building Technology II (Sustainability)</td>
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<td>A741</td>
<td>Environmental Controls I</td>
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## Environmental Engineering

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<td>EN647</td>
<td>Modeling Pollutant Fate and Assessing Risk</td>
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<td>EN648</td>
<td>Organic Process Chemistry</td>
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<td>S431</td>
<td>Environmental Chemistry</td>
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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 Co-op 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 sell designs.

**FIRST YEAR**

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**Design Core**

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**Major Core**

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**Credit Total** 31-33

**SECOND YEAR**

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**Credit Total** 30-31

**THIRD YEAR**

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**Credit Total** 30

**FOURTH YEAR**

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**Designated Fashion Elective**

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<td>T716</td>
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<td>T721</td>
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<tr>
<td>T722</td>
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<td>T725</td>
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<td>T798</td>
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**Credit Total** 35

**DEGREE TOTAL** 126-129
Fashion Industry Management

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.

FIRST YEAR

| College Studies |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L111 Writing Seminar I | 3 | L121 Environmental Science | 3 | ____ Arts and Culture | 3 | L17( ) Historical Understanding I | 3 | L130/1 + L132 Quantitative Reasoning I + II or 6-8 | L135 + L132 Quantitative Reasoning I + II or L135 + L141 Quantitative Reasoning I + II or L141 + L142 Quantitative Reasoning I + II |
| Physical Education | 0.5 | Physical Education II | 0.5 | Credit Total | 31-33 |

SECOND YEAR

| College Studies |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L312 Science II: General Chemistry | 3 | L36( ) Social Sciences I | 3 | L61( ) Writing Seminar II (L611 recommended) | 3 | L( ) Language or Area Studies I * | 3 |  |
| Business Core |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| B123 Principles of Management | 3 | B403 Financial Accounting (Fall) | 3 | B423 Managerial Accounting (Spring) | 3 |  |  |  |  |  |

Apparel/Textile Core

| T255 Textile Production I (Spring) | 3 | T901 Survey of the Global Apparel Industry | 3 | T917 Garment Development** (Spring) | 3 | Credit Total | 30 |

THIRD YEAR

| College Studies |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L38( ) Humanities I | 3 | L66( )/L67( )/L68( ) Interdisciplinary Course | 3 | L66( )/L67( )/L68( ) Interdisciplinary Course | 3 | L( ) Language or Area Studies II * | 3 |  |
| Business Core |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| B241 Retailing Strategy and Structure | 3 |  |  |  |  |  |  |  |  |

Apparel/Textile Core

| T256 Textile Production II (Spring) | 3 | T904 Apparel Production | 4 | T913 Apparel/Textile Quality Assessment (Spring) | 3 | Designated Electives | 3 |
| Designated Elective *** | 3 | Designated Elective *** | 3 | Credit Total | 31 |

FOURTH YEAR

| College Studies |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L911 Contemporary Perspectives | 4 |  |  |  |  |  |  |  |  |
| Business Core |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| B148 Apparel/Textile Brand Management (Fall) | 3 | B149 Apparel/Textile Supply Chain Management (Spring) | 4 | B642 Financial Management | 3 |  |
| Apparel/Textile Core |  
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| T790 Seminar: Textile Apparel Industry Issues | 1 | T909 Apparel Merchandising Management (Spring) | 3 | T912 Apparel/Textile Sourcing (Fall) | 3 | T916 Apparel/Textile Quality Assurance (Fall) | 3 | Designated Electives | 3 |

Designated Electives

Designated Elective *** | 3 |-Free Electives | 3 | Elective | 3 | Credit Total | 33 |

DEGREE TOTAL 125-127

*(L352, and l353 or l354 recommended)
** T918 instead, if planning T920 as elective
***Designated Electives (select three courses with advisor approval)
AP12, AP23, B122, B141, B162, B179, B180, B231, B240, B243, B244, B251, MB25, MB28, MT21, MT31, MT59, T125, T729, T773, T791, T798, T920, T921, T940
Elective graduate courses with approval of Graduate Program Coordinator (GPA requirements)
Industrial and Systems Engineering

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.

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

FIRST YEAR

College Studies

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<td>L17( )</td>
<td>Historical Understanding I</td>
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Engineering Courses

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SECOND YEAR

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<td>L( )</td>
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Math and Science

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Engineering

<table>
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<tr>
<td>EN301</td>
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<td>EN302</td>
<td>Engineering Dynamics (Spring)</td>
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Credit Total: 32

THIRD YEAR

College Studies

<table>
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<tbody>
<tr>
<td>L38( )</td>
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Math and Science

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<td>EN505</td>
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Engineering Courses

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<td>Design for Manufacturability (Spring)</td>
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ISE Courses

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<td>Managerial Engineering (Spring)</td>
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<td>EN514</td>
<td>Manufacturing Quality Control (Spring)</td>
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<td>EN616</td>
<td>Operations Research II (Spring)</td>
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<td>E835</td>
<td>Engineering Economics (Fall)</td>
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Credit Total: 31

FOURTH YEAR

College Studies

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Engineering Courses

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<td>EN506</td>
<td>Fundamentals of Electrical Engineering (Spring)</td>
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ISE Courses

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<td>EN711</td>
<td>Simulation (Fall)</td>
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<td>EN712</td>
<td>Facility Planning (Spring)</td>
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<td>EN713</td>
<td>Processes Engineering (Fall)</td>
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<td>Logistics Engineering (Fall)</td>
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<tr>
<td>EN716</td>
<td>Information Systems Design (Spring)</td>
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Credit Total: 31

DEGREE TOTAL: 127
Textile Design

The Bachelor of Science in Textile Design provides the artistic skills, technical knowledge and awareness of textile materials that enable the student to turn innovative ideas into actual products within a wide range of price concerns. Extensive studios and laboratories with industry technology give students real-world experiences as designers. Students learn how to translate their ideas into woven, knitted and printed fabrics. During the last year, they select one area in which to concentrate. CAD facilities are available in every area and students must become proficient with this very important design tool. The Design Center at Philadelphia University provides a wealth of on-campus design research resources. 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. All Textile Design majors are expected to participate in the “Benchmarks Toward Graduation” process, which includes a freshman portfolio review, a junior portfolio review and the senior show. All are presentations before a faculty panel. The latter includes an external industry designer. The purpose of this process is to provide feedback to strengthen the program and better prepare the student for their profession.

FIRST YEAR
College Studies
L111 Writing Seminar I 3
L121 Environmental Science 3
L17 Historical Understanding I 3
L130/1 + L132 Quantitative Reasoning I + II or 6-8
L135 + L132 Quantitative Reasoning I + II or
L135 + L141 Quantitative Reasoning I + II or
L141 + L142 Quantitative Reasoning I + II
Design Core
T701 Design Foundations I (Fall) 3
T702 Design Foundations II (Spring) 3
T712 Drawing I
Textile Core
T101 Survey of Textiles (Fall) 3
T301 Yarn Engineering (Spring) 4
Physical Education
Physical Education I 0.5
Physical Education II 0.5
Credit Total 32-34

SECOND YEAR
College Studies
L36 Social Sciences I 3
L61 Writing Seminar II 3
L Language or Area Studies I 3
L312 Science II: General Chemistry 3

Design Core
T122 Computer-Aided Design 3
T771 or T772 Arts and Culture: History of Western Art I or II 3
T704 Design Foundations III 3
Textile Core
T451 Weaving I 4
T551 Knitting I 4
Major Core
T440 or T540 (Weave/Knit) Design Studio I 3
Credit Total 32

THIRD YEAR
College Studies
L38 Humanities I 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L Language or Area Studies II 3
Textile Core
T452 Weaving II 4
T552 Knitting II 4
T790 Seminar: Textile/Apparel Industry Issues 1
Major Core
T440 or T540 (Weave/Knit) Design Studio I 3
T705 Print Design I 3
T740 or T745 Print Design Studio or Textile Printing Technology 3
T773 History of Textiles and Costumes 3
Credit Total 33

FOURTH YEAR
College Studies
L911 Contemporary Perspectives 4
Textile Core
C501 Dyeing & Finishing 4
T201 Textile Materials 4
Major Core
T295 Textile Design Research 3
Designated Textile Design Electives*
Textile Design Elective 3
Textile Design Elective 3-4
Textile Design Elective 3
Business Elective** 3
Free Electives
Free Elective*** 3
Free Elective 3
Credit Total 33-34

DEGREE TOTAL 130-133
*Textile Design Electives (select three): T420, T441, T503, T541, T553, T706, T740 or T745 (whichever was not used as a requirement).
**Business Elective (select one) B123, B221, MT65
***Replaced by MT17 (if accepted into graduate program)
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
MC17 Design Studio IC 3
Credit Total 33-34
B.S. DEGREE TOTAL 130-133

*Business Elective (select one) B123, B221, MT65

FIFTH YEAR
Major Core
MT15 Design Studio Research (Summer) 3
MT42 Design Studio IIA (Fall) 3
MT43 Design Studio IIB (Fall) 3
MT44 Design Studio IIC (Fall) 3
MT72 Design Studio IIIA (Spring) 3
MT73 Design Studio IIIB (Spring) 3
MT74 Design Studio IIIC (Spring) 2
MT75 Thesis (Spring) 1
MT77 Advanced CAD (Summer) 3
Designated Electives
MTXX Elective 3
Credit Total 27
JOINT B.S./M.S. TOTAL 156-159
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

L111  Writing Seminar I (Fall)  3
L17( )  Historical Understanding I (Spring)  3
L135 + L132  Quantitative Reasoning I + II or  6-8
L135 + L141  Quantitative Reasoning I + II or
L141 + L142  Quantitative Reasoning I + II
L312  General Chemistry or L321 Chemistry I  3-4

Technical Core

EN102  Engineering Drawing (Spring)  3
T101  Survey of Textiles (Fall)  3
T301  Yarn Engineering (Spring)  4
T901  Survey of the Global Apparel Industry (Spring)  3

Business Core

B122  Intro to Information Systems (Fall)  3

Physical Education

Physical Education I  0.5
Physical Education II  0.5
Crredit Total  32-34

SECOND YEAR

College Studies

L313  General Physics  3
L36( )  Social Sciences I  3
L( )  Language or Area Studies I  3
L61( )  Writing Seminar II (L613 recommended)  3

Technical Core

C501  Dyeing & Finishing (Fall)  4
T451  Weaving I (Fall)  4
T452  Weaving II (Spring)  4
T551  Knitting I (Fall)  4
T552  Knitting II (Spring)  4

Business Core

B151  Statistics I (Spring)  3
Credit Total  35

THIRD YEAR

College Studies

L38( )  Humanities I (Spring)  3
L66( )/L67( )/L68( )  Interdisciplinary Course  3
L( )  Language or Area Studies II (Fall)  3

Technical Core

T201  Textile Materials  4
T620  Nonwovens  3
T763  Textile Costing  3
T790  Seminar: Textile/Apparel Industry Issues  1

Textile Engineering Technology Option

TET  Option 1,2,3,or4 (Spring)  3
TET  Option 1,2,3,or4 (Spring)  3

Business Core

B123  Principles of Management  3
B403  Financial Accounting (or MF 04**)  3
Credit Total  32

FOURTH YEAR

College Studies

L66( )/L67( )/L68( )  Interdisciplinary Course  3
L( )  Arts & Culture  3
L911  Contemporary Perspectives  4

Technical Core

T290  Senior TET Project (Spring)  4

Textile Engineering Technology Option

TET  Option 1,2,3,or4 (Fall)  3 or 4
TET  Option 1,2,3,or4 (Fall)  3 or 4

Business Core

B421  Business Law (or MF03**)  3
E821  Macroeconomics  3

Free Electives or Co-op

Free Electives (2) (MB25 and MB28 for Pre-M.B.A option**)  6
Credit Total  32 - 34

DEGREE TOTAL  131-136

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

Product Development (select four)
- T420 Jacquard
- T503 Adv Weft Knitting
- T553 Adv Warp Knitting
- T630 Industrial Textiles
- T745 Textile Printing Technology
- T811 Textile Production Control

Quality Assurance & Assessment (select four)
- B152 Statistics II
- T207 Adv. Fabric Performance Evaluation
- T767 Textile Quality Management
- T913 Apparel/Textile Quality Assessment

International Textile Management (select four)
- B162 Human Resource Management
- B168 International Management
- B303 Survey of E-Commerce
- E507 Engineering Economics
- T811 Textile Production Control
- T912 Apparel/Textile Sourcing
  — Adv. Textile Elective (Approved By Advisor)

Pre-MBA (must be accepted by the MBA program)
- B141 Operations Management
- B152 Statistics II
- B221 Principles of Marketing
- B642 Financial Management
- MF03 Foundations of Economic Analysis
  (replaces E821)
- MF04 Intro to Financial & Managerial Accounting
  (replaces B403)
- MB25 Management Communication & Negotiation
  (replaces free elective)
- MB28 Accounting For Management Decisions
  (replaces free elective)
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 Design section.

### FIRST YEAR

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<tr>
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<td>Physical Education</td>
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### THIRD YEAR

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<td>MF04</td>
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<td>Principles of Marketing</td>
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### FOURTH YEAR

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<td>Concentration Option</td>
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<td>Operations Management</td>
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<td>MF03</td>
<td>Foundations of Economic Analysis</td>
</tr>
<tr>
<td>MB25</td>
<td>Management Communications and Negotiations</td>
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<td>MB28</td>
<td>Accounting for Management Decisions</td>
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<td>Free Electives</td>
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### FIFTH YEAR

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<tr>
<td>MB26</td>
<td>Global Managing in the 21st Century (Fall)</td>
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<td>MB27</td>
<td>Management of Information Through Technology (Fall)</td>
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<td>Financial Policy and Planning (Spring)</td>
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<td>MB30</td>
<td>Quantitative Methods in Decisions (Fall)</td>
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<td>Strategic Marketing Management (Spring)</td>
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<td>MB42</td>
<td>Strategic Planning in a Global Environment (Spring)</td>
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<td><strong>MB92</strong></td>
<td>International Business Trip (Spring)</td>
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<td><strong>MB91</strong></td>
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### JOINT B.S./M.S. TOTAL

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<td><strong>Total</strong></td>
<td><strong>157-159</strong></td>
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</table>

**Evening students should speak with a graduate advisor about satisfying these credits using Option Area courses**
The School of Liberal Arts bears primary responsibility for the general education common curriculum at Philadelphia University called the College Studies program. A strong grounding in the liberal arts as part of this program allows students to explore and analyze the world in which we live and work. Study in the liberal arts and sciences builds the ability to be an integrative thinker; a person who can see connections across 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, our 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 promotes the best of a strong liberal arts and sciences tradition working alongside the profession-oriented curriculum. Students progress through a sequence of foundational coursework, making connections between disciplines and viewing their own fields of choice through larger 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.

College Studies Program

Two realities fuel our College Studies program, and particularly study in the liberal arts: 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 breadth of knowledge gained by study in the liberal arts and sciences as well as active learning, strong research skills and information literacy, critical thinking, and effective communication and writing skills. Quantitative reasoning and the scientific method are taught in science and mathematics courses offered by the School of Science and Health, which jointly administers the College Studies program with the School of Liberal Arts.

The College Studies Program provides a unique blend of studies in the liberal arts and sciences to prepare students for a world in which technological change, economic shifts and increasing interdependence demand more than 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 designed for professionals, as well as regional/area studies to promote an understanding of the increasingly interdependent world.

To promote effective communication skills, College Studies has a strong writing program consisting of both writing courses 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. 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.

Sequencing of College Studies Courses

(See table on page 71.) 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 (H99), Fundamentals of College Reading and Study Skills (R99) and Fundamentals of College Mathematics (M99) 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 (L111) and Writing Seminar II (L610s)**
Two writing-specific courses exist 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 (H99).

**H99 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 H99ESL after designated faculty members have evaluated a writing sample. Credits may not be applied toward graduation requirements, though the grade, as with other courses, does affect students' overall grade point average. For more information, see “Fundamentals Courses” in the section “Academic Policies.”

**Writing Seminar I**
The first of two core writing-specific courses in the College Studies Program, 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 American 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**
These courses are designed for sophomore-level students to 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:
- L611 Writing Seminar II: Business
- L612 Writing Seminar II: Architecture and Design
- L613 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.

<table>
<thead>
<tr>
<th>Science I</th>
<th>Science II</th>
</tr>
</thead>
<tbody>
<tr>
<td>L121 Environmental Science</td>
<td>L311 General Biology, or</td>
</tr>
<tr>
<td></td>
<td>L312 General Chemistry, or</td>
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<tr>
<td></td>
<td>L313 General Physics</td>
</tr>
<tr>
<td></td>
<td>L314 Exploring Science</td>
</tr>
<tr>
<td>L321 Chemistry I</td>
<td>L323 Biology I, or</td>
</tr>
<tr>
<td></td>
<td>L325 Physics I</td>
</tr>
</tbody>
</table>

**Quantitative Reasoning Group - 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 day students, 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.

<table>
<thead>
<tr>
<th>Quantitative Reasoning I</th>
<th>Quantitative Reasoning II</th>
</tr>
</thead>
<tbody>
<tr>
<td>L130/L131 Finite Mathematics</td>
<td>L132 Introduction to Calculus</td>
</tr>
<tr>
<td>L135 Pre-Calculus</td>
<td>L132 Introduction to Calculus</td>
</tr>
<tr>
<td>L135 Pre-Calculus</td>
<td>L141 Calculus I</td>
</tr>
<tr>
<td>L141 Calculus I*</td>
<td>L142 Calculus II</td>
</tr>
</tbody>
</table>

**Arts and Cultures (L150s)- 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.
- A331 History of Architecture & Interiors I
- L151 Performing Arts
- L152 Ideas and Images (not for Architecture or any design majors)
- L155 Music
- L158 Art in Context
- T771: History of Western Art I
- T772: History of Western Art II

**Historical Understanding I: (L170s) – one course**
The Rise of the Modern World
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.
- L171 Global Transitions
- L172 Forces of Technology
- L173 American Transitions

**Language and Area Studies – two courses**
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 a language or study a culture 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.

Area Studies:
L351 Europe
L352 Latin America
L353 East Asia
L354 Africa
L355 Middle East
L356 Great Britain (Study Abroad option)

Social Sciences I: The Global Village (L360s)- one course
Courses in this group acquaint students with the social sciences as a way of looking at human behavior. Social Sciences I courses presently center on the theme “global village,” and the conviction that we live in an interdependent world. Each course within this option takes a different approach to this theme. These courses are interdisciplinary and give students a broad introduction to social scientific methods.
L362 Class, Gender & Race
L363 Personality and Culture
L364 The Individual and the Environment
L366 Poverty and Power in the Global Economy
L367 Global Politics

Humanities I (L380s) - one course
Courses in this group examine aspects of the human endeavor through the study of areas such as literature, philosophy and ethics. These courses will emphasize primary texts, will often address ways in which human beliefs and values shape behavior, and will include a consideration of ethical reasoning.
L381 Worlds of Literature
L382 World Philosophies: Africa to Zen
L383 Evil and Good

Level II: Interdisciplinary College Studies – two courses
Social Sciences (L660s); Historical Understanding (L670s); Humanities(L680s)
Courses in this group are upper-level courses that are interdisciplinary or in-depth studies of issues or themes. They require a higher level of analytical and communication skills than Level I courses and are designed to examine more explicitly the connections between the liberal arts and the professions. Courses in this group are writing intensive.
L661 Post-Industrial Society
L663 Social Conflict
L664 Human Rights
L671 African-American Experience
L672 Industry and Work
L673 The Urban Experience
L674 Science and Society
L675 The United States: The Recent Past
L682 Literature and Society: Caste and Class
L683 Literature and Society: Artist and Society
L684 Gender Studies
L685 Shakespeare and American Culture
L686 Literature and Society: From Fiction to Film
L689 Honors Topics Seminar

Capstone Course in College Studies:
L911 Contemporary Perspectives
All students take this 4-credit capstone core course in their senior year. Students explore major economic, political and cultural thrusts of change in the post-1945 world. The course connects world affairs and the global economy with issues in the student’s profession and is a capstone of the College Studies Program, as it draws upon the previously completed College Studies courses and makes connections between students’ majors and the liberal arts and sciences. All students complete a final research paper, which addresses an issue in the professions in light of current international trends. This course cannot be taken for credit/no credit. This course is writing intensive.

Writing Across the Curriculum
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. Students develop writing and thinking skills by taking two writing-specific and at least four writing-intensive courses between the freshman and senior years, at least three of which are in the College Studies general education core and at least one in their majors. The program also offers Honors, Fundamentals, and English as a Second Language courses.

Writing is also integrated across the curriculum to promote research/information literacy skills, intellectual and aesthetic pursuits, and experimentation with academic and professional communication. Students may also pursue a range of additional opportunities to write in academic and professional arenas. Examples include The TEXT, Analysis, Open: A Writing & Design Collaboration.

In all aspects of the Writing Program, students are encouraged to focus on improving the quality of their approaches to writing, as well as the final documents they produce. Students and faculty use writing in a variety of ways, including as a vital tool for critical thinking and learning, and as a means of expressing ideas and communicating what they have learned. To assist in these regards, professional writing tutors in the Learning & Advising Center support students in all subjects at all levels. The Center’s website also offers students resources on writing.

Writing-Specific Courses
Two writing-specific courses exist in the College Studies sequence in which writing is a central focus: the first course in the freshman year and the second in the sophomore year. Students who are under-prepared for college-level writing (determined by placement testing) begin the sequence with Fundamentals of College Writing (H99).
Writing-Intensive Courses
In addition to writing-specific courses, students take a minimum of four writing-intensive courses — three in College Studies and at least one in their major — throughout the university years. Writing-intensive courses help students deepen their understanding of the content of the courses in College Studies and the major. Writing enables students to rehearse, question and clarify issues in both informal and formal ways. In the process of writing and revising drafts, students learn the importance of clearly presenting their ideas. Writing-intensive courses in College Studies are taken in the junior and senior years.

Information Literacy
In collaboration with University librarians and faculty in the other schools, the School of Liberal Arts faculty are committed to assisting students in developing their information literacy skills. As noted on the Philadelphia University Gutman Library Web site (www.PhilaU.edu/library), “As information technologies develop and transform the manner in which information is stored, accessed, managed, conveyed and retrieved, students must learn both to effectively use these innovations and to understand the possibilities and responsibilities associated with them. To become lifelong learners, students need practice and training in information retrieval methods, critical evaluation and application of information, and the ethical use of information and information technologies.”

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.

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.
<table>
<thead>
<tr>
<th>Year 1 (1-30 credits) L100s</th>
<th>Year 2 (31-60 credits) L300s</th>
<th>Year 3 (61-90 credits) L600s</th>
<th>Year 4 (90-120+ credits) L900s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Science I</strong></td>
<td><strong>Language or Area Studies</strong></td>
<td><strong>Social Sciences I</strong></td>
<td><strong>Senior Capstone Course</strong></td>
</tr>
<tr>
<td>Select one course (3-4 cr.)</td>
<td>Select two courses (6 cr.) from either category:</td>
<td>Global Dimensions</td>
<td>(Writing Intensive)</td>
</tr>
<tr>
<td>L121 Environmental Science (3 cr.)</td>
<td>Foreign Languages</td>
<td>Select one course (3 cr.)</td>
<td>L911: Contemporary</td>
</tr>
<tr>
<td>L321 Chemistry 1 (4 cr.)</td>
<td>(Language courses can be taken in any year)</td>
<td>L362: Class, Gender &amp; Race</td>
<td>Perspectives (4 cr.)</td>
</tr>
<tr>
<td>Check requirements for major.</td>
<td>L363: Personality &amp; Culture</td>
<td>L364: Individual &amp; Environment</td>
<td><strong>“Level II”</strong></td>
</tr>
<tr>
<td>Quantitative Reasoning I and II</td>
<td>L366: Power and Poverty in the</td>
<td>L367: Global Politics</td>
<td>Interdisciplinary Courses:</td>
</tr>
<tr>
<td>Select (6-8 cr.) from sequences:</td>
<td>Global Economy</td>
<td>Writing Seminar I:</td>
<td>History II/Humanities II/</td>
</tr>
<tr>
<td>L130/131: Finite Math &amp;</td>
<td>L367: Global Politics</td>
<td>L111: Writing Seminar I: American</td>
<td>Social Sciences II</td>
</tr>
<tr>
<td>L132 Intro to Calculus</td>
<td>Writing Seminar II</td>
<td>Lives</td>
<td>(Writing Intensive)</td>
</tr>
<tr>
<td>or L135 Pre-Calculus &amp;</td>
<td>Select one course (3cr.)</td>
<td>L611: Business</td>
<td>Select two courses (6 cr.)</td>
</tr>
<tr>
<td>or L135 Pre-Calculus &amp;</td>
<td>L613: Science/Eng./Tech./Health</td>
<td>L673: Urban Experience</td>
<td>L663: Social Conflict</td>
</tr>
<tr>
<td>L141 Calculus I</td>
<td><strong>Science II</strong></td>
<td>L674: Science &amp; Society</td>
<td>L664: Human Rights</td>
</tr>
<tr>
<td>or L141 Calculus I &amp;</td>
<td>If you took L121, take one of the following: (3 cr.)</td>
<td>L675: U.S.: Recent Past</td>
<td>L671: African-American</td>
</tr>
<tr>
<td>L142 Calculus II</td>
<td>L311: General Biology</td>
<td>L682: Caste &amp; Class</td>
<td>Experience</td>
</tr>
<tr>
<td>Check requirements by major.</td>
<td>L312: General Chemistry</td>
<td>L683: Artist &amp; Society</td>
<td>L684: Gender Studies</td>
</tr>
<tr>
<td>Writing Seminar I:</td>
<td>L313: General Physics</td>
<td>L685: Shakespeare &amp;</td>
<td>L685: Shakespeare &amp;</td>
</tr>
<tr>
<td>Lives</td>
<td>L321: Chemistry I</td>
<td>L686: From Fiction to Film</td>
<td>American Culture</td>
</tr>
<tr>
<td>Historical Understanding I</td>
<td><strong>Humanities I</strong></td>
<td>L689: Honors Topics Seminar</td>
<td>L689: Honors Topics Seminar</td>
</tr>
<tr>
<td>Select one course (3 cr.)</td>
<td>Select one course (3 cr.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L171: Global Transitions</td>
<td>L381: Worlds of Literature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L172: Forces of Technology</td>
<td>L382: World Philosophies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L173: American Transitions</td>
<td>L383: Evil and Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Arts and Culture</strong></td>
<td><strong>“Level II”</strong></td>
<td><strong>“Level II”</strong></td>
<td></td>
</tr>
<tr>
<td>Select one course (3 cr.)</td>
<td>Interdisciplinary Courses:</td>
<td>Interdisciplinary Courses:</td>
<td></td>
</tr>
<tr>
<td>A331: History of Architecture and Interiors I</td>
<td>History II/Humanities II/</td>
<td>History II/Humanities II/</td>
<td></td>
</tr>
<tr>
<td>L151: Performing Arts</td>
<td>Social Sciences II</td>
<td>Social Sciences II</td>
<td></td>
</tr>
<tr>
<td>L152: Ideas and Images (May not be taken by any design or architecture major)</td>
<td>(Writing Intensive)</td>
<td>(Writing Intensive)</td>
<td></td>
</tr>
<tr>
<td>L155: Music</td>
<td>Select two courses (6 cr.)</td>
<td>Select two courses (6 cr.)</td>
<td></td>
</tr>
<tr>
<td>L158: Art in Context (junior/senior status)</td>
<td>L661: Post-Industrial Society</td>
<td>L661: Post-Industrial Society</td>
<td></td>
</tr>
<tr>
<td>T771: History of Western Art I</td>
<td>L663: Social Conflict</td>
<td>L663: Social Conflict</td>
<td></td>
</tr>
<tr>
<td>T772: History of Western Art II</td>
<td>L664: Human Rights</td>
<td>L664: Human Rights</td>
<td></td>
</tr>
<tr>
<td>Total: 15-22 credits</td>
<td>Total: 12-13 credits</td>
<td>Total: 12 credits</td>
<td>Total: 4 credits</td>
</tr>
</tbody>
</table>

2005 - 2007 Undergraduate Catalog
School of Science and Health

Dean: Matt Dane Baker  
Assistant Dean: R.M. Wilson  
Director, M.S., Physician Assistant Studies Program: M. Rackover  
Director, M.S., Midwifery Program: J. Hobdy  
Director, M.S., Occupational Therapy Program: C. Piersol  

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
- Environmental and Conservation Biology
- Joint B.S. Health Sciences/M.S. Physician Assistant Studies
- Pre-Medical Studies
- Psychology
- Science and Business

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 I and II Group

All students will complete two science courses to enhance their understanding of the scientific method and its application. Some students will take one science course in their first year, while others will take both College Studies science courses in the first year. Students should take the sequence that best suits the requirements of their majors.

<table>
<thead>
<tr>
<th>Science I</th>
<th>Science II</th>
</tr>
</thead>
<tbody>
<tr>
<td>L121 Environmental Science, or</td>
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</tr>
<tr>
<td>L321 Chemistry I</td>
<td>L312 General Chemistry, or</td>
</tr>
<tr>
<td></td>
<td>L313 General Physics, or</td>
</tr>
<tr>
<td></td>
<td>L314 Exploring Science, or</td>
</tr>
<tr>
<td></td>
<td>L323 Biology I</td>
</tr>
<tr>
<td></td>
<td>L325 Physics I</td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>• L130/L131 Finite</td>
<td>L132 Introduction to</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Calculus</td>
</tr>
<tr>
<td>• L135 Pre-Calculus</td>
<td>L132 Introduction to</td>
</tr>
<tr>
<td></td>
<td>Calculus</td>
</tr>
<tr>
<td>• L135 Pre-Calculus</td>
<td>L141 Calculus I</td>
</tr>
<tr>
<td>• L141 Calculus I</td>
<td>L142 Calculus II</td>
</tr>
</tbody>
</table>
Biochemistry

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**
- L111 Writing Seminar I 3
- L15( ) Arts & Cultures 3
- L17( ) Historical Understanding I 3
- L141 Calculus I (Fall) 4
- L142 Calculus II (Spring) 4
- L321 Science I: Chemistry I (Fall) 4
- L323 Science II: Biology I (Fall) 4

**Major Core**
- C112 Chemistry II (Spring) 4
- S212 Biology II (Spring) 4

**Physical Education**
- Physical Education I 0.5
- Physical Education II 0.5

**Credit Total** 34

**SECOND YEAR**

**College Studies**
- L36( ) Social Sciences I 3
- L( ) Language or Area Studies I 3
- L61( ) Writing Seminar II (L613 recommended) 3

**Major Core**
- C121 Organic Chemistry I (Fall) 4
- C122 Organic Chemistry II (Spring) 4
- L( ) Calculus III (Fall) 4
- S116 Physics II (Spring) 4
- S466 Biostatistics (Fall) 3

**Credit Total** 32

**THIRD YEAR**

**College Studies**
- L38( ) Humanities I 3
- L( ) Language or Area Studies I 3
- L61( ) Writing Seminar II (L613 recommended) 3

**Major Core**
- C131 Physical Chemistry I (Fall) 4
- C132 Physical Chemistry II (Spring) 4
- C193 Instrumental Methods of Analysis (Spring) 4
- S215 Biochemistry I (Fall) 4
- S216 Biochemistry II (Spring) 4

**Credit Total** 32

**FOURTH YEAR**

**College Studies**
- L911 Contemporary Perspectives 4

**Major Core**
- C142 Inorganic Chemistry (Spring) 4

**Designated Elective**
- *Advanced Chemistry/Biology Elective 3
- *Advanced Chemistry/Biology Elective 3
- *Advanced Chemistry/Biology Elective 3

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

**Credit Total** 26-27

**DEGREE TOTAL** 124-125

*Advanced Chemistry/Biology Elective (select three from the following)
C171, C231, C232, S213, S231, S232, S791
Biology

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

College Studies
L111 Writing Seminar I 3
L15( ) Arts & Cultures 3
L17( ) Historical Understanding I 3
L141 Calculus I (Fall) 4
L142 Calculus II (Spring) 4
L321 Science I: Chemistry I (Fall) 4
L323 Science II: Biology I (Fall) 4
Math/Science Core
C112 Chemistry II (Spring) 4
S212 Biology II (Spring) 4
Physical Education
Physical Education I 0.5
Physical Education II 0.5
Credit Total 34

SECOND YEAR

College Studies
L36( ) Social Sciences I 3
L( ) Language or Area Studies I 3
L61( ) Writing Seminar II (L613 recommended) 3
Math/Science Core
C121 Organic Chemistry I (Fall) 4
C122 Organic Chemistry II (Spring) 4
Major Core
S213 Cell Biology (Spring) 4
S217 Plant Biology (Fall) 4
S227 Principles of Genetics (Spring) 4
Credit Total 29

THIRD YEAR

College Studies
L38( ) Humanities I 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L( ) Language or Area Studies II 3
Math/Science Core
L325 Physics I (Fall) 4
S116 Physics II (Spring) 4
S466 Biostatistics (Fall) 3
Major Core
S233 Ecology (Fall) 4
Designated Electives
Advanced Biology Elective* 3-4
Advanced Biology Elective* 3-4
Credit Total 33-35

FOURTH YEAR

College Studies
L911 Contemporary Perspectives 4
Major Core
S298 Life Science Seminar (Spring) 3
Designated Electives
Advanced Biology Elective* 3-4
Advanced Biology Elective* 3-4
Advanced Biology Elective* 3-4
Free Electives
Free Elective 3
Free Elective 3
Free Elective 3
Credit Total 25-28

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
  C121, C122, L325, S116 and three additional advanced courses from biology and psychology areas (see advisor)
- Animal Behavior Option
  S227, S233, S238 and four additional advanced courses from biology and psychology areas (see advisor)
- Graduate Study Option
  seven advanced courses from biology and psychology areas (see advisor)

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>L321</td>
<td>Science II: Chemistry I (Fall)</td>
<td>4</td>
</tr>
<tr>
<td>L36( )</td>
<td>Social Sciences I</td>
<td>3</td>
</tr>
<tr>
<td>L( )</td>
<td>Language or Area Studies I</td>
<td>3</td>
</tr>
<tr>
<td>L61( )</td>
<td>Writing Seminar II (L613 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>C112</td>
<td>Chemistry II (Spring)</td>
<td>4</td>
</tr>
<tr>
<td>H802</td>
<td>Psychological Applications of Statistics I(Spring)</td>
<td>3</td>
</tr>
<tr>
<td>S218</td>
<td>Human Anatomy and Physiology I (Fall)</td>
<td>4</td>
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**DEGREE TOTAL** 121-130

* Students selecting the Pre-Med Option must take L141 & L142

Philadelphia University
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

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**Credit Total** 26-27

**DEGREE TOTAL** 124-125

*Advanced Chemistry Electives (select three) C171, C172, C199, C231, C232, S431*

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### Environmental Science Track

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**Credit Total** 30

**DEGREE TOTAL** 121-125

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.

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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 undergraduate foundation courses. The remainder of the 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, obstetrics and gynecology, 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 judgement, 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, cardiothoracic 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**
- L111 Writing Seminar I 3
- L15( ) Arts & Cultures 3
- L17( ) Historical Understanding I 3
- L321 Science I: Chemistry I (Fall) 4
- L323 Science II: Biology I (Fall) 4
- L130/1 + L132 Quantitative Reasoning I + II or 6-8
- L135 + L141 Quantitative Reasoning I + II or
- L141 + L142 Quantitative Reasoning I + II

**Major Core**
- C112 Chemistry II (Spring) 4
- S212 Biology II (Spring) 4
- PA: Pre-Professional
- N101 Topics in Professionalism: PA 1

**Physical Education**
- Physical Education I 0.5
- Physical Education II 0.5
- Credit Total 33-35

### SECOND YEAR

**College Studies**
- L36( ) Social Sciences I 3
- L613 Writing/Communication Seminar II: Science 3
- L( ) Language or Area Studies I 3
- L( ) Language or Area Studies II 3

**Major Core**
- C123 Bioorganic Chemistry (Fall) 3
- H801 Introduction to Psychology (Fall) 3
- H870 Developmental Psychology (Spring) 3
- S218 Human Anatomy and Physiology I (Fall) 4
- S219 Human Anatomy and Physiology II (Spring) 4
- S221 Microbiology (Spring) 4
- PA: Pre-Professional
- N505 Clinical Interactions I (Spring) 2

**Physical Education**
- Credit Total 35

### THIRD YEAR

**College Studies**
- L38( ) Humanities I 3
- L66( )/L67( )/L68( ) Interdisciplinary Course (Fall) 3
- L66( )/L67( )/L68( ) Interdisciplinary Course (Spring) 3
- L911 Contemporary Perspectives (Spring) 4

**Major Core**
- B151 Statistics I (Fall) 3
- H823 Abnormal Psychology (Fall) 3
- S227 Principles of Genetics (Spring) 4
- S228 Immunology (Spring) 3
- S236 Histology (Fall) 4
- PA: Pre-Professional
- N508 Medical Terminology & Documentation (Spring) 3
- N509 Clinical Interactions II (Fall) 3
- Credit Total 36

### FOURTH YEAR

**Didactic**
- H712 Applied Behavioral Science (Fall) 3
- N507 Advanced Anatomy (Fall) 5
- N511 Medical Physiology and Pathophysiology (Fall) 3
- N513 Medical History and Physical Diagnosis (Fall) 5
- N514 Medical and Professional Ethics (Fall) 2
- N515 Medical Genetics, Immunology, and Microbiology (Fall) 2
- PA11 Clinical Medicine (Spring) 8
- PA12 Clinical Reasoning (Spring) 2
- PA13 Pharmacology and Pharmacotherapeutics (Spring) 4
- PA14 Emergency Medicine (Spring) 3
- PA15 Laboratory Medicine (Spring) 2
- PA21 Clinical Disciplines Overview (Summer I) 6
- PA22 Pharmacotherapeutics Seminar (Summer I) 1
- PA23 Advanced Radiology/ECG Seminar (Summer I) 1
- PA24 Biomedical Literature and Research (Summer I & II) 3

**Clinical**
- *Clinical Rotation (Summer II) 6
- Credit Total 56
- Total Credits 124-126

### FIFTH YEAR

**Didactic**
- PA71 PA Master’s Project and Summary Competency Evaluation (entire year) 3

**Clinical Rotations (Five done in Fifth Year)***
- PA41 Internal Medicine Rotation 6
- PA42 Pediatrics Rotation 6
- PA43 Obstetrics and Gynecology Rotation 6
- PA44 Psychiatry/ Mental Health Rotation 6
- PA45 Surgery Rotation 6
- PA46 Emergency Medicine Rotation 6

**Clinical Preceptorships**
- PA59 Preceptorship IA: Primary Care 1 6
- PA60 Preceptorship IB: Primary Care 2 6
- PA63 Preceptorship IIA: Floating Medicine Block 6
- PA64 Preceptorship IIB: Elective 6

**Total Graduate (PA) Credits** 93

**DEGREE TOTAL** 217-219

***Clinical Rotation (select all) PA41, PA42, PA43, PA44, PA45, PA46***
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
L111 Writing Seminar 3
L15( ) Arts & Cultures 3
L17( ) Historical Understanding I 3
L141 Calculus I (Spring) 4
L321 Science I: Chemistry I (Fall) 4
L323 Science II: Biology I (Fall) 4
Math/Science Core
C112 Chemistry II (Spring) 4
S212 Biology II (Spring) 4
Physical Education
Physical Education I .5
Physical Education II .5
Credit Total 30

SECOND YEAR

College Studies
L142 Calculus II (Fall) 4
L36( ) Social Sciences I 3
L( ) Language or Area Studies I 3
L61( ) Writing Seminar II (L613 recommended) 3
Math/Science Core
C121 Organic Chemistry I (Fall) 4
C122 Organic Chemistry II (Spring) 4
S466 Biostatistics (Fall) 3
Major Core
Pre-Medical Core* (Spring) 3
Credit Total 27

THIRD YEAR

College Studies
L38( ) Humanities I 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L66( )/L67( )/L68( ) Interdisciplinary Course 3
L( ) Language or Area Studies II 3
Math/Science Core
L325 Physics I (Fall) 4
S116 Physics II (Spring) 4
Major Core
Pre-Medical Core* 4
Pre-Medical Core* 4
Pre-Medical Core* 4
Credit Total 32

FOURTH YEAR

College Studies
L911 Contemporary Perspectives 4
Major Core
S290 Preceptorship I (Third Year Summer) 3
S291 Preceptorship II (Third Year Summer) 3
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 35-37

DEGREE TOTAL 124 -126

*Pre-Medical Core S213, S215, S216, S218, S219, S221, S227
**Pre-Medical Electives S214, S218, S219, S228, S229, S236
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
L111 Writing Seminar I 3
L121 or L321 Science I (Fall) 3-4
L15() Arts & Cultures 3
L17() Historical Understanding I 3
L130/1 + L132 Quantitative Reasoning I + II or 6-8
L135 + L141 Quantitative Reasoning I + II or
L141 + L142 Quantitative Reasoning I + II
L3() Science II (Spring) 3-4

Major Core
H801 Introduction to Psychology (Fall) 3
H881 Physiological Psychology (Spring) 3

Free Electives
Free Elective 3

Physical Education
Physical Education I 0.5
Physical Education II 0.5

Credit Total 31-35

SECOND YEAR
College Studies
L36() Social Sciences I 3
L() Language or Area Studies I 3
L() Language or Area Studies II 3
L61() Writing Seminar II (L613 recommended) 3

Major Core
H802 Psychological Applications of Statistics I (Spring) 3
H823 Abnormal Psychology (Fall) 3

Designated Electives
Psychology Distribution Elective* 3
Psychology Distribution Elective* 3

Minor Concentration
Minor Concentration** 3

Free Electives
Free Elective 3

Credit Total 30

THIRD YEAR
College Studies
L3B() Humanities I 3
L66()/L67()/L68() Interdisciplinary Course 3
L66()/L67()/L68() Interdisciplinary Course 3

Major Core
H803 Psychological Applications of Statistics II (Fall) 3
H804 Introduction to Experimental Psychology (Spring) 3

Designated Electives
Psychology Distribution Elective* 3
Psychology Distribution Elective* 3
Psychology Distribution Elective* 3

Minor Concentration
Minor Concentration** 3
Minor Concentration** 3

Credit Total 30

FOURTH YEAR
College Studies
L911 Contemporary Perspectives 4

Major Core
H805 Senior Colloquium in Psychology (Spring) 3
H890 Advanced Research in Psychology (Fall) 3

Designated Electives
Psychology Distribution Elective* 3
Psychology Distribution Elective* 3
Psychology Distribution Elective* 3

Minor Concentration
Minor Concentration** 3
Minor Concentration** 3
Minor Concentration** 3

Free Electives
Free Elective 3

Credit Total 31

DEGREE TOTAL 122-126

*Psychology Distribution Electives
(select two courses from each of the following)
• Experimental Psychology Distribution H825, H861, H862, H863, H870
• Clinical Psychology Distribution H812, H822, H824, H826, H888
• Social/Organizational Psychology Distribution
  H831, H832, H851, H853
• Biological Basis of Behavior Distribution
  H880, H883, H884, H885

**Minor Concentration**
(select one, six-course option from the following)
• Human Resources Management
  B123, B162, B172 and three of the following: B145, B147, B161,
  B165, B179, B421, H831, H832, H853
• Health Care Management
  B183, B184, B186 and three of the following: B122, B162, B172,
  B179, B187, B221, B403
• Pre-Occupational Therapy
  H870, S212, S218, S219 and two additional psychology courses.
  (L323 Biology I must be taken for Science II)
• Minor Concentration Students may 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.
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>Science I: Chemistry I (Fall)</td>
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<td>*Advanced Integrated Sequence</td>
<td>Financial Accounting (Fall)</td>
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<td>*Advanced Integrated Sequence</td>
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<table>
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<tr>
<th>Free Electives</th>
<th>Course Name</th>
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</table>

**DEGREE TOTAL** 120-124

*Advanced Integrated Sequence (four courses approved by advisor)
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 the evening, on weekends and 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; Health Services Management; Human Resource Management; Information Technology; Organizational Leadership; Pre-MBA; and Professional Communication. 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.

Health Services Professionals – Available to existing students only until 2007
Philadelphia University offers unique opportunities for registered nurses and other health care professionals to earn the Bachelor of Science degree by awarding block transfer credit for approved health care training. These curricula are not designed to improve basic nursing or clinical skills, but rather allow registered nurses and health services professionals to pursue another area of study in or out of the health-services field. A variety of degree completion options are available, including health services management, human resource management, psychology and psychological services.

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 Neshaminy Interplex Corporate Center 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 215.245.0170.

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 seven 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
- J100 Professional Practice Seminar 3

### General Education 15 credits
- J201 Business, Industry, Work in American History 3
- J202 Globalization and World Politics 3
- J204 Professional Communication Skills 3
- J210 Professional Capstone Seminar 3

### Continuing Studies Core 15 credits
- J101 Leadership Theory 3
- J111 Economic Decision Making 3
- J112 Finding and Evaluating Statistical Data 3
- J121 Financial Decision Making 3
- J123 Organizational Ethics 3

### Major – select one 15 credit option below 15 credits

#### Behavioral and Health Services 15 credits
- H823 Abnormal Psychology 3
- H824 Counseling Psychology 3
- H863 Interpersonal Reactions and Small Group Dynamics 3
- H870 Developmental Psychology 3
- J605 Behavioral Health and Neurorehabilitation 3
- J610 Applied Project in Behavioral and Health Services 3

#### Health Services Management 15 credits
- J32 Cross Cultural Communication and Diversity Management 3
- J301 Survey of Health Services Delivery Systems 3
- J302 Public Policy and Planning in Healthcare 3
- J303 Emerging Issues in Healthcare 3
- J310 Capstone Seminar in Health Services Management 3

#### Human Resource Management 15 credits
- J162 Human Resource Management 3
- J401 Staffing and Resource Development 3
- J402 Compensation and Benefits, Health and Safety 3
- J403 Organizational and Employee Relations 3
- J410 Applied Research and Practice in Human Resource Management 3

#### Information Technology 15 credits
- J501 Information Technology I 3
- J502 Information Technology II 3
- J503 Database Management 3
- J504 Needs Assessment 3
- J510 Project Management 3

#### Organizational Leadership 15 credits
- H853 Interpersonal Relations and Small Group Dynamics 3
- J113 Communication Theory and Practice 3
- J122 Visual Literacy 3
- J132 Cross Cultural Communication and Diversity Management 3
- OL Elective 3

#### Pre M.B.A. 15 credits
- B141 Operations Management 3
- B221 Principles of Marketing 3
- B403 Financial Accounting 3
- B423 Managerial Accounting 3
- J525 Business Capstone Seminar 3

#### Professional Communication 15 credits
- J701 Writing and Speaking for Media Presentations 3
- J702 Hypertext Authoring 3
- J703 Narrative Structures in Professional Communication 3
- J704 Technical Writing 3
- J710 Internship in Professional Communication 3

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**Program Majors**

**Behavioral and Health Services**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>H823</td>
<td>Abnormal Psychology</td>
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<tr>
<td>H824</td>
<td>Counseling Psychology</td>
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<td>H863</td>
<td>Interpersonal Reactions and Small Group Dynamics</td>
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<tr>
<td>H870</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>J605</td>
<td>Behavioral Health and Neurorehabilitation</td>
</tr>
<tr>
<td>J610</td>
<td>Applied Project in Behavioral and Health Services</td>
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**Health Services Management**

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>J32</td>
<td>Cross Cultural Communication and Diversity Management</td>
</tr>
<tr>
<td>J301</td>
<td>Survey of Health Services Delivery Systems</td>
</tr>
<tr>
<td>J302</td>
<td>Public Policy and Planning in Healthcare</td>
</tr>
<tr>
<td>J303</td>
<td>Emerging Issues in Healthcare</td>
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<tr>
<td>J310</td>
<td>Capstone Seminar in Health Services Management</td>
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**Human Resource Management**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>J162</td>
<td>Human Resource Management</td>
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<tr>
<td>J401</td>
<td>Staffing and Resource Development</td>
</tr>
<tr>
<td>J402</td>
<td>Compensation and Benefits, Health and Safety</td>
</tr>
<tr>
<td>J403</td>
<td>Organizational and Employee Relations</td>
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<tr>
<td>J410</td>
<td>Applied Research and Practice in Human Resource Management</td>
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**Information Technology**

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<th>Course Title</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>J502</td>
<td>Information Technology II</td>
</tr>
<tr>
<td>J503</td>
<td>Database Management</td>
</tr>
<tr>
<td>J504</td>
<td>Needs Assessment</td>
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<tr>
<td>J510</td>
<td>Project Management</td>
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**Organizational Leadership**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td>Interpersonal Relations and Small Group Dynamics</td>
</tr>
<tr>
<td>J113</td>
<td>Communication Theory and Practice</td>
</tr>
<tr>
<td>J122</td>
<td>Visual Literacy</td>
</tr>
<tr>
<td>J132</td>
<td>Cross Cultural Communication and Diversity Management</td>
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<td>OL</td>
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**Pre M.B.A.**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>B141</td>
<td>Operations Management</td>
</tr>
<tr>
<td>B221</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>B403</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>B423</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>J525</td>
<td>Business Capstone Seminar</td>
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**Professional Communication**

<table>
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<tbody>
<tr>
<td>J701</td>
<td>Writing and Speaking for Media Presentations</td>
</tr>
<tr>
<td>J702</td>
<td>Hypertext Authoring</td>
</tr>
<tr>
<td>J703</td>
<td>Narrative Structures in Professional Communication</td>
</tr>
<tr>
<td>J704</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>J710</td>
<td>Internship in Professional Communication</td>
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</table>
B.S. Health Services Management: Business Concentration

Evening only – Available to existing students only until 2007

The Health Services Management program is a professionally oriented, degree-completion program designed to assist professionals to assume leadership and management positions in the health care industry, insurance companies, schools, business and nonprofit organizations. The curriculum is not designed to improve basic clinical training in a specific health field. It is meant to supplement these professional skills through the development of communication competence, the improvement of interpersonal relationships, the sharpening of management proficiency and the acquisition of new technical proficiencies.

The Health Services Management major includes unique transfer options that recognize transfer credit for training and education leading to licensure as a registered nurse, certified occupational therapy assistant, or others holding associate degrees in other health-service professions. Program applicants should have a minimum of 60 credits of college-level work. The block transfer option is designed for those with health services and clinical training.

<table>
<thead>
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<th>College Studies</th>
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<td>L( ) Area Studies or Language</td>
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<tr>
<td>L35( ) Area Studies</td>
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</tr>
<tr>
<td>L6( ) Level II College Studies</td>
<td>3</td>
</tr>
<tr>
<td>L61( ) Writing Seminar II (L611 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>L911 Contemporary Perspectives</td>
<td>4</td>
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<tr>
<td>(Writing II, Level II CS)</td>
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<table>
<thead>
<tr>
<th>Business/Economics Core</th>
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<tr>
<td>B221 Principles of Marketing</td>
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<tr>
<td>B403 Financial Accounting</td>
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<tr>
<td>B423 Managerial Accounting (B403)</td>
<td>3</td>
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<tr>
<td>E821 Microeconomics</td>
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<td>IS16 Management Information Systems</td>
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<table>
<thead>
<tr>
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<th>Minor Concentration or Free Electives</th>
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<td></td>
<td>3</td>
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</table>

**Transfer Credits (RN, COTA or other HSP) 60 credits**

Must include L111, one historical understanding, one humanities, one social sciences, L131, one laboratory science, and one Information Systems course (completed in last five years).

**CREDIT TOTAL: 121**

**Health Services Management Concentration**

| B179 Diversity Management (B123 or B184) |
| B183 Health Services Delivery System |
| B184 Health Services Management |
| B186 Health Services Management Sem. (B183, B184) |
| B187 Emerging Issues in Health Care (B123 or B184) |

**Human Resource Management Concentration**

| B123 Principles of Management |
| B161 Industrial Relations (B123) |
| B162 Human Resource Management (B123) |
| B179 Diversity Management (B123 or B184) |
| B172 Management Seminar (IS16) |

*Prerequisites are listed after the course name in parentheses.*
The Health Services Management program is a professionally oriented, degree-completion program designed to supplement professional skills with an exposure to a variety of courses that enhance the students’ existing expertise. The curriculum does not provide clinical training in a specific health field.

Experience in this Health Services Management: Psychology option also offers students opportunities to improve interpersonal communication skills and gain new expertise in the area of psychological services, or prepare for graduate studies. Students using COTA transfer credits will have taken courses that are often prerequisites for admission to the master’s degree program in Occupational Therapy at Philadelphia University or other institutions.

The Health Services Management major provides unique transfer options that recognize transfer credit for training and education leading to licensure as a registered nurse, certified occupational therapy assistant, or others holding associate degrees in other health-service professions. Program applicants should have a minimum of 60 credits of college-level work. The block transfer option is designed for those with health services and clinical training.

Graduates should be able to combine psychological principles, concepts and practical strategies to work in a variety of professions, including health care education, counseling, crisis intervention, and human services for patients in rehabilitation and those who are behaviorally challenged.

College Studies 16 credits

L(   ) Area Studies or Language 3

L35(  ) Area Studies 3

L6(   ) Level II College Studies 3

L61(  ) Writing Seminar II (L611 recommended) 3

L911 Contemporary Perspectives (Writing II, Level II CS) 4

Psychology Core 9 credits

H801 Introduction to Psychology 3

H823 Abnormal Psychology (H801) 3

H881 Physiological Psychology (H801) 3

Psychology Distribution Electives 24 credits (select two courses from each of the following)

Experimental Psychology Distribution
H825, H861, H862, H863, H870 (COTA students pursuing graduate work should select H870) 3

Clinical Psychology Distribution
H812, H822, H824, H826, H888 3

Social/Organizational Psychology Distribution
H831, H832, H851, H853 3

Biological Basis of Behavior Distribution
H880, H883, H884, H885 3

Concentration Option 15 credits (Select one, five course option)

• Psychological Research Option
H802 Psychological Applications of Statistics I (H801) 3

H803 Psychological Applications of Statistics II (H802) 3

H804 Introduction to Experimental Psychology (H803) 3

H805 Senior Colloquium in Psychology (H804,H890) 3

H890 Advanced Research in Psychology (H804 and 21 psychology credits) 3

• Psychological Services Option
Select two additional H8xx courses chosen in consultation with an advisor. 3

Select three free electives or three of the following HSM courses (B183, B184, B186, B187) 3

Transfer Credits (RN, COTA or other HPS) (60 credits)
Must include L111, one historical understanding, one humanities, one social sciences, L131, one laboratory science.

CREDIT TOTAL: 124

* Prerequisites are listed after the course name in parentheses.
B.S. Human Resource Management

Evening only – Available to existing students only until 2007

Individuals trained in human resource management can look forward to rapidly expanding opportunities in the field. Students will become proficient in the fundamentals of management, marketing, accounting, computing and business law; as well as acquire solid knowledge of HRM theory and practices including employment and placement, EEO and affirmative action, job analysis, compensation and benefits, training and development and industrial labor relations.

<table>
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<tr>
<th>College Studies</th>
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<td>Writing Seminar</td>
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<td>L121</td>
<td>Environmental Science</td>
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<tr>
<td>L( )</td>
<td>Quantitative Reasoning I</td>
</tr>
<tr>
<td>L( )</td>
<td>Quantitative Reasoning II</td>
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</table>

For Quantitative Reasoning select one two-course sequence:

<table>
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<th>Course 1</th>
<th>Course 2</th>
<th>Credits</th>
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<tr>
<td>L130/1 Finite Mathematics (3 cr.)</td>
<td>L135 Pre-calculus (3 cr.)</td>
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<tr>
<td>L132 Introduction to Calculus (3 cr.)</td>
<td>L141 Calculus I (4 cr.)</td>
<td>3</td>
</tr>
<tr>
<td>L135 Pre-calculus (3 cr.)</td>
<td>L141 Calculus I (4 cr.)</td>
<td>3</td>
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<tr>
<td>L132 Introduction to Calculus (3 cr.)</td>
<td>L142 Calculus (4 cr.)</td>
<td>3</td>
</tr>
<tr>
<td>L15( )</td>
<td>Arts and Cultures</td>
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</tr>
<tr>
<td>L17( )</td>
<td>Historical Understanding I</td>
<td>3</td>
</tr>
<tr>
<td>L31( )</td>
<td>Science II (L121)</td>
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</tr>
<tr>
<td>L36( )</td>
<td>Social Science I (L111, L17X)</td>
<td>3</td>
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<tr>
<td>L38( )</td>
<td>Humanities I (L111, L17X)</td>
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<tr>
<td>L( )</td>
<td>Language or Area Studies (L111, L17X) [Area Studies L35_, Language L34_, L64_, L94_]</td>
<td>3</td>
</tr>
<tr>
<td>L( )</td>
<td>Language or Area Studies (L111, L17X) [Area Studies L35_, Language L34_, L64_, L94_]</td>
<td>3</td>
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<tr>
<td>L61( )</td>
<td>Writing Seminar II (L611 recommended. L63X, L38X. May not be taken as CR/NC.)</td>
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Select one of the following courses from the following:

<table>
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<tr>
<th>Course 1</th>
<th>Course 2</th>
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<tbody>
<tr>
<td>L66( )</td>
<td>Social Science II (L36X, L38X)</td>
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<tr>
<td>L67( )</td>
<td>Historical Understanding II (L36X, L38X)</td>
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</tr>
<tr>
<td>L68( )</td>
<td>Humanities II (L36X, L38X)</td>
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L911 Contemporary Perspectives (Senior status, L61X, and one L66( ), or L67( ), or L68( ). May not be taken as CR/NC.) | 4 |

Business and Economics Core 39 credits

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<tbody>
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<td>B122</td>
<td>Introduction to Information Systems</td>
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<tr>
<td>B123</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>B141</td>
<td>Operations Management (B122, B123, L132 or L141; pre- or co-req: B152 or M141)</td>
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<tr>
<td>B151</td>
<td>Statistics I (L130/1)</td>
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<tr>
<td>B152</td>
<td>Statistics II (“C” or better in B151)</td>
<td>3</td>
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<tr>
<td>B171</td>
<td>Business Policy and Strategy (senior status, B122, B123, B221, B642)</td>
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<td>B221</td>
<td>Principles of Marketing</td>
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<td>B403</td>
<td>Financial Accounting</td>
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<td>B421</td>
<td>Business Law I</td>
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<td>B423</td>
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<td>Financial Management (B403, B151 or M141)</td>
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<tr>
<td>B821</td>
<td>Microeconomics</td>
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<td>Microeconomics</td>
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Major Core 15 credits

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<tr>
<td>B162</td>
<td>Human Resource Management (junior status, B123)</td>
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<tr>
<td>B160</td>
<td>Organizational Behavior (junior status, B123)</td>
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<td>B179</td>
<td>Diversity Management (B123)</td>
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Select one of the following options 12 credits

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</tr>
<tr>
<td>• Pre-M.B.A. (must be accepted by the M.B.A. Program) MB25 Management Communications &amp; Negotiations MB28 Accounting for Management Decisions</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Two additional undergraduate business courses, excluding HRM courses.</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Internship or Free Elective 9 credits

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

CREDIT TOTAL: 121-123

*Prerequisites are listed after the course name in parentheses.
### Associate in Science: Business Administration

**Evening only - Available to existing students only until 2007**

<table>
<thead>
<tr>
<th>College Studies</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>L111 Writing Seminar</td>
<td>3</td>
</tr>
<tr>
<td>L121 Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>L( ) Quantitative Reasoning I</td>
<td>3/4</td>
</tr>
<tr>
<td>L( ) Quantitative Reasoning II</td>
<td>3/4</td>
</tr>
</tbody>
</table>

*For Quantitative Reasoning select one two-course sequence:*

- L130/1 Finite Mathematics (3 cr.)
- L135 Pre-calculus (3 cr.)
- L132 Introduction to Calculus (3 cr.)
- L141 Calculus I (4 cr.)
- L142 Calculus II (4 cr.)
- L17( ) Historical Understanding I
- L36( ) Social Science I (L111, L17x)
- L38( ) Humanities I (L111, L17x)

**Business and Economics Core**

<table>
<thead>
<tr>
<th>(30 credits)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B122 Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>B123 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>B151 Statistics I (L130/1)</td>
<td>3</td>
</tr>
<tr>
<td>B221 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>B403 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>B421 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>B423 Managerial Accounting (B403)</td>
<td>3</td>
</tr>
<tr>
<td>B642 Financial Management (B403, B151 or M141)</td>
<td>3</td>
</tr>
<tr>
<td>E821 Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>E822 Microeconomics</td>
<td>3</td>
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</tbody>
</table>

**Free Electives** (9 credits)

<p>| | |</p>
<table>
<thead>
<tr>
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<td>3</td>
</tr>
</tbody>
</table>

**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 the Mental Health-Mental Retardation Technician training program administered by the District 1199C Training and Upgrading Fund.

<table>
<thead>
<tr>
<th>Program</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLKTRF Mental Health-Mental Retardation Program</td>
<td>21</td>
</tr>
</tbody>
</table>

**Core Competencies**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L111 Writing Seminar</td>
<td>3</td>
</tr>
<tr>
<td>L61( ) Writing Seminar II</td>
<td>3</td>
</tr>
<tr>
<td>L130 Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>L121 Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>L17( ) Historical Understanding</td>
<td>3</td>
</tr>
<tr>
<td>H801 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>L38( ) Humanities</td>
<td>3</td>
</tr>
<tr>
<td>J114 Introduction to Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Concentration**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H823 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>H853 Interpersonal Relations and Small Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>H888 Psychology of Addiction</td>
<td>3</td>
</tr>
<tr>
<td>H8( ) Conflict Resolution</td>
<td>3</td>
</tr>
<tr>
<td>H8( ) Behavioral Health Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

**CREDIT TOTAL:** 60
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.

B403    Financial Accounting 3
B441    Intermediate Accounting I (B403) 3
B442    Intermediate Accounting II (B441) 3
B443    Accounting Theory and Practice (B442) 3
B461    Cost Accounting (B441) 3
B463    Federal Taxes I (B403) 3
B464    Auditing (B442) 3
B465    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.

Certificate: Entrepreneurship

Available to existing students only until 2007

This program is designed to help entrepreneurs ensure the success of their small business ventures, whether product- or service-oriented. It includes courses in the traditional business disciplines, as well as advanced courses related to entrepreneurial applications.

B122    Introduction to Information Systems 3
B123    Principles of Management 3
B170    Entrepreneurship Seminar (B123, B221) 3
B221    Principles of Marketing 3
B403    Financial Accounting 3
B421    Business Law I 3

Designated Electives (select two)

B162    Human Resource Management (B123) 3
B231    Consumer Behavior (B221) 3
B240    Marketing Communications (B231) 3
B241    Retailing Strategy and Structure (B221) 3
B243    Sales Management (B221) 3
B423    Managerial Accounting (B403) 3

CREDIT TOTAL: 24

*Prerequisite courses are listed after the course name in parentheses.

Certificate: Health Services Management

Available to existing students only until 2007

This certificate is designed to provide an overview of the management issues unique to the health-services industry and a specific knowledge related to current trends and perspectives in today’s health care delivery systems.

B183    Health Services Delivery System 3
B184    Health Services Management 3
B186    Health Services Management Seminar (B183, B184) 3
B187    Emerging Issues in Health Care (B184) 3

Designated Electives (select four)

B122    Introduction to Information Systems 3
B145    Training and Development (B162) 3
B147    Compensation and Benefits (B184) 3
B162    Human Resource Management (B184) 3
B160    Organizational Behavior (B123) 3
B179    Diversity Management (B184) 3
B221    Principles of Marketing 3
B403    Financial Accounting 3

CREDIT TOTAL: 24

*Prerequisite courses are listed after the course name in parentheses.
## Certificate: Human Resource Management

This certificate is designed for individuals who supervise or manage the work of others. The success of managers, as well as the success of their organizations, depends upon decisions about employees. These decisions will affect performance, job satisfaction and, ultimately, the efficiency and effectiveness of the organization. This program will provide both general managers and human resource specialists with new tools for successful performance on the job and a rewarding career opportunity in an exciting field.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B123</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>B145</td>
<td>Training and Development (B162)</td>
<td>3</td>
</tr>
<tr>
<td>B147</td>
<td>Compensation and Benefits (B123)</td>
<td>3</td>
</tr>
<tr>
<td>B162</td>
<td>Human Resource Management (B123)</td>
<td>3</td>
</tr>
<tr>
<td>B165</td>
<td>Organizational Politics and Negotiation (B162)</td>
<td>3</td>
</tr>
<tr>
<td>B179</td>
<td>Diversity Management (B123)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Designated Electives (select two)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B160</td>
<td>Organizational Behavior (B123)</td>
<td>3</td>
</tr>
<tr>
<td>B161</td>
<td>Industrial Relations (B123)</td>
<td>3</td>
</tr>
<tr>
<td>B181</td>
<td>Advanced Human Resource Mgt. (B162)</td>
<td>3</td>
</tr>
<tr>
<td>B421</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>H831</td>
<td>Industrial Organizational Psychology (H801)</td>
<td>3</td>
</tr>
<tr>
<td>H832</td>
<td>Assessment of Personnel (H801)</td>
<td>3</td>
</tr>
<tr>
<td>H853</td>
<td>Interpersonal Relations and Small Group Dynamics (H801)</td>
<td>3</td>
</tr>
</tbody>
</table>

**CREDIT TOTAL:** 24

## Certificate: Information Systems

Computer software and hardware play a major role in supporting business decision-making. The courses in this program combine skills in programming and problem solving with knowledge of networking.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS10</td>
<td>Survey of Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>IS11</td>
<td>Database Analysis, Design, Management (IS12)</td>
<td>3</td>
</tr>
<tr>
<td>IS12</td>
<td>Programming for Problem Solving (IS10)</td>
<td>3</td>
</tr>
<tr>
<td>IS13</td>
<td>Computer Networking (IS11)</td>
<td>3</td>
</tr>
<tr>
<td>IS14</td>
<td>Software Engineering (IS12)</td>
<td>3</td>
</tr>
<tr>
<td>IS15</td>
<td>Data Analysis for Decision Making (IS10, IS11)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Designated Electives (select three)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS16</td>
<td>Management Information Systems (B122)</td>
<td>3</td>
</tr>
<tr>
<td>IS21</td>
<td>Ethical &amp; Social Issues of Comp Programming</td>
<td>3</td>
</tr>
<tr>
<td>IS23</td>
<td>Discrete Structures (IS10)</td>
<td>3</td>
</tr>
<tr>
<td>IS31</td>
<td>Algorithms &amp; Data Structures (IS10)</td>
<td>3</td>
</tr>
<tr>
<td>IS51</td>
<td>Applied Software Development (IS12)</td>
<td>3</td>
</tr>
<tr>
<td>IS52</td>
<td>Programming in C (IS10)</td>
<td>3</td>
</tr>
<tr>
<td>IS53</td>
<td>Programming in C++ (IS52)</td>
<td>3</td>
</tr>
<tr>
<td>IS83</td>
<td>Operating Systems (IS53)</td>
<td>3</td>
</tr>
<tr>
<td>IS85</td>
<td>Web Construction &amp; E-Commerce Application (IS10)</td>
<td>3</td>
</tr>
<tr>
<td>IS91</td>
<td>Special Topics (Junior Status)</td>
<td>3</td>
</tr>
</tbody>
</table>

**CREDIT TOTAL:** 27

*Prerequisite courses are listed after the course name in parentheses.*
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.

- B441 Intermediate Accounting I
- B442 Intermediate Accounting II
- B463 Federal Taxes I
- Any advanced Accounting elective, except B461 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)
- B403 Financial Accounting
- E821 Macroeconomics and/or
- E822 Microeconomics

Choose additional courses (total 12 credit hours)
- B421 Business Law I
- B423 Managerial Accounting
- B642 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.

- B233 Marketing in an Electronic Environment
- B303 Survey of E-Commerce
- IS11 Database Analysis, Design, and Management
- IS16 Management Information Systems

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 B641, B643, B645, B661 or B662.

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.

- S238 Biodiversity
- S430 Environmental Issues

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.

- T101 Survey of the Textile Industry
- T901 Survey of the Global Apparel Industry

Any two of the following:
- T240 Apparel Fabric Performance
- T904 Apparel Production
- T912 Apparel/Textile Sourcing
Finance Minor

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.

- B643 Intermediate Financial Management
- B661 Investments and Portfolio Management
- Any two Finance electives, but at least one must be from B641, B645, B662, B663 or E843.

Foundation Design Minor

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.

- T701 Design Foundations I or
- A111 Design I
- T712 Drawing I

Any two of the following:
- A112, A122, A321, T122, T702, T713, T714
- Any course from a design major approved by the advisor.

Historic Preservation Minor

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.

- A631 Historic Preservation
- A632 Building Preservation

Any two of the following:
- A608, A610, A611, A613, A633

Human Resource Management Minor

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.

- B160 Organizational Behavior
- B161 Industrial Relations
- B162 Human Resource Management

One advanced Management elective from the following:
- B144, B145, B147, B168, B170, B176, B199, H831, H832, IS11, IS13

Information Systems Minor

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.

- IS11 Database Design, Analysis & Management
- IS16 Management Information Systems

Two additional Information Systems electives from the following:
- IS12, IS13, IS14, IS15, IS21, IS23, IS31, IS51, IS52, IS53, IS73, IS74, IS83, IS85, IS91

International Business Minor

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.

- B168 International Management
- B244 International Marketing
- B645 International Finance and Development
- E864 International Economics

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.

Landscape Design Minor

- S462 Local Flora (3 credits)

One of the following history/theory courses
- LA341 Technology I: Grading
- LA531 Landscape Architecture
- LA532 Landscape Architecture History II or
- LA533 Landscape Architecture Theory

One of the following Landscape Architecture studios:
- LA312 Design IV for Landscape Architecture
- LA512 Design VI for Landscape Architecture
- LA711 Design VII: Elective studio for Landscape Architecture
Landscape Planning Minor  
LA341 Technology I: Grading  
LA122 Graphics for Landscape Architecture  
LA332 History of Landscape Architecture I  
One of the following:  
LA521 GIS for Landscape Analysis  or  
LA742 Technology III: Hydrology  

Management Minor  
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.  
B160 Organizational Behavior  
B162 Human Resource Management  
IS16 Management Information Systems  
One advanced Management elective from the following:  
B144, B145, B147, B161, B168, B170, B176, B199, H831, H832, IS11, IS13

Marketing Minor  
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.  
B231 Consumer Behavior  
B240 Marketing Communications  
B261 Marketing Research  
One advanced Marketing elective from the following:  
B233, B241, B243, B244, B251, B299

Multimedia and Visualization Minor  
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:  
A623 CAD: Visualization  
A624 CAD: Visualization/FormZ  
A628 CAD: Multimedia  
D713 Digital Design and Visualization Studio  
G626 Digital Imaging and Photographic Manipulation

Organizational Behavior Minor  
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.  
B160 Organizational Behavior  
B172 Management Seminar  
Two advanced Management electives from the following:  
B144, B145, B147, B161, B162, B168, B170, B176, B199, H831, H832, IS11, IS13

Photography Minor  
The 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.  
A605 Architectural Photography/Portfolio  
A999 Independent Study in Architecture, Interior Design  
G621 Introduction to Photography for Graphic Design Communication  
G622 Studio Photography

Pre-M.B.A. Minor for Business Majors  
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.  
MB25 Management Communications and Negotiations  
MB28 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.

B123 Principles of Management
B141 Operations Management
(or MF10 Operations Management)
B221 Principles of Marketing
B642 Financial Management
(or MF05 Financial Management)
MF03 Foundations of Economic Analysis
MF04 Introduction to Financial and Managerial Accounting
MF08 Statistical Analysis for Business Decisions
MB25 Management Communications and Negotiations
MB28 Accounting for Management Decisions

• Course numbers beginning with a letter “B” indicate that the course is an undergraduate business course.

• Course numbers beginning with “MF” indicate graduate master-level foundation courses, and course numbers beginning with “MB” indicate graduate master-level courses.

• Courses in parentheses are acceptable equivalents to those that precede them.

• It is required that B123, MF04 and MF08 be taken before taking B141 Operations Management and B642 Financial Management. MF04 must be taken prior to MB28 Accounting for Management Decisions.

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.

H801 Introduction to Psychology (required)
Any three HB__ courses (chosen in consultation with a psychology faculty member)

Social Sciences Minor  12 credits
College Studies requirements plus four Level II Interdisciplinary group courses and/or Area Studies courses.

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.

T101 Survey of Textile Industry (required)
Any three of the following:
T201 Textile Materials
T301 Yarn Engineering
T451 Weaving I
T551 Knitting I
T745 Textile Printing Technology
Internship Program

The Internship Program at Philadelphia University is an academic program designed to enrich the educational experience by combining a career-related internship with coursework that facilitates the student’s professional development. Students may work part- or full-time, during fall, spring or summer semesters, and in conjunction with the internship enroll in an associated free elective course. Eligible students may apply to the program for assistance in finding an internship in their field; alternately, students may also apply to incorporate an internship found independently into the program. To ensure the excellent learning experience of students, a member of the faculty serves as the student’s internship advisor during the work semester.

The minimum University program requirements for student participation are as follows:

• 2.5 G.P.A.
• Completion of at least 60 credits, 90 if Architecture or Landscape Architecture
• Transfer students must have completed at least 15 credits at Philadelphia University
• Permission of the director of the Internship Program.

Note that faculty from specific programs may impose additional requirements for student participation, such as specific prerequisite courses, minimum credits in the major, minimum grades in major courses, etc.

Each internship course is designed to allow the student to reflect upon his or her individual experience as well as develop greater awareness of the profession.

The following course numbers are assigned for school-specific Internship courses:

A791 Architecture Internship
B791 Business Internship
D791 Design & Media Internship
S791 Science Internship
T791 Engineering & Textiles Internship
Z101 Internship (non-credit)

In any one semester, a student may enroll in the school-specific internship course for either three-credits (part-time) or six credits (full-time). If a student has successfully completed a three-credit internship one term, they may re-enroll for a second three-credit internship in a subsequent term if they desire, using the same school course number. The grade earned is averaged into the student’s G.P.A. based on either a three- or six-credit enrollment.
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 Numbering

A  Architecture and Interior Design
   100-199 - First Year
   300-399 - Second Year
   500-599 - Third Year
   600-699 - A&D Electives
   700-799 - Fourth Year
   800-899 - Fifth Year
B  100-199 - Management
   200-299 - Marketing
   300-399 - General Business
   400-499 - Accounting & Law
   600-699 - Finance
C  100-299 - Chemistry
   500-599 - Textile Chemistry
D  Digital Design
E  Economics
EN  Engineering
G  Graphic Design Communications
H  100-399 - Humanities (not College Studies)
   700-799 - Social Sciences (not College Studies)
   800-899 - Psychology & Biopsychology
I  Industrial Design
IS  Information Systems
J  Continuing and Professional Studies
L  College Studies
LA  Landscape Architecture
M  Mathematics (not College Studies)
N  Physician Assistant (undergraduate level)
PE  Physical Education
R  Reading & Study Skills
S  100-199 - Physics
   200-299 - Biology
   400-499 - Environmental Science
T  100-199 - General Textiles & CAD
   200-299 - Fiber Science
   300-399 - Yarn
   400-499 - Weaving
   500-599 - Knitting
   600-699 - Fabric Structure
   700-799 - Design, Drawing & Printing
   800-899 - Engineering
   900-999 - Apparel & Fashion Design
U  Honors

Semester credit hours earned
Lab/studio hours per week
Lecture hours per week

Course Number  K123  1-5-3
Course Name  What Do You Call It
Prerequisite: course(s) that must be completed before enrolling in this course.

Refer to most recent catalog

The description gives brief outline of the material to be covered. More complete information can be obtained by accessing information on the University Web site.
Architecture and Interior Design

A100 0-0-(3-12)
Architecture/Design Studies Abroad
Contact the School of Architecture and Design for further information.
Prerequisites: 2.00 G.P.A., grade of “C” (2.00) or better in both A511 and A512; or grade of “C” (2.00) or better in A516, and permission of both the study abroad director and program director

A101 1-4-3
Study Abroad Documentation
Following the student’s travel abroad, this course will serve as a means to relate their experience to their overall education. Through individual and group projects, students will be responsible for summarizing, documenting and presenting their study abroad experience to the University community. Through this process, they will demonstrate the benefits of living and studying within another culture.
Prerequisite: A100

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.

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: grade of “C” (2.00) or better in A111

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 relationships through one- and two-point perspectives and through various drawing materials will be introduced.
Prerequisite: T712

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: T712

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, portrait, figure, interiors and landscape.
Prerequisites: T712, and A111 or T701

A125 1-4-3
Visualization: Techniques 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: T712, grade of “C” (2.00) or better in A111, or permission of the director

A311 0-8-4
Design III: Architecture and Landscape Foundation 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” (2.00) or better in A112

A312 0-8-4
Design IV: Architecture Foundation 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” (2.00) or better in A311

**A315**  
*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 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 be emphasized.

**Prerequisite:** grade of “C” (2.00) or better in A112

**A316**  
*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 role of 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” (2.00) or better in A315

**A321**  
*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” (2.00) or better in A112, or permission of the program director

**A331**  
*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:** L111

**A332**  
*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 7th 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:** A331

**A341**  
*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” (2.00) or better in A112 or T807

**A342**  
*Technology II: Systems and Sustainability*

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:** A341

**A346**  
*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:** A341

**A351**  
*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:** T702 or grade of “C” (2.00) or better in A112

A511 0-10-5

**Design V: Architecture and Landscape Architecture Studio**

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 B.Arch major; A332 or LA332; A342 or LA341; grade of “C” (2.00) or better in A312 or LA312 or permission of the program director

A512 0-10-5

**Design VI: Architecture Studio**

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 discussion of architectural history, theory and principles as the basis for the making of architecture and urban form.

**Prerequisites:** 5-year B.Arch major, A332, A342, grade of “C” (2.00) or better in A312, or permission of the program director

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, and equipment (FF&E), lighting, and basic building technologies in their designs.

**Prerequisite:** grade of “C” (2.00) or better in A316, or permission of the program director

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” (2.00) or better in A515, and approval of the instructor or program director

A526

**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:** A315 or permission of the instructor

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:** A312

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:** A531

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 determinate 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:** L132 or L141, L313, A342; grade of “C” (2.00) or better in A312
A542 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: A541

A601 Presentation Techniques
This elective course explores several types of rendering techniques 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.

A602 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” (2.00) or better in A111

A605 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” (2.00) or better in A312, LA312 or A316

A608 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.
Prerequisite: A532

A609 Landscape/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: L121, A321, grade of “C” (2.00) or better in A311

A610 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: A532 or LA533, and approval of the instructor or program director

A611 Meaning in Architectural Ornamentation
This elective course raises some theoretical questions that are relevant to contemporary practice. What 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 materi- alis) of which architecture consists; to the “rules” and “abus- es” 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: A532 or LA533

A613 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: A332 or LA332 or approval of the instructor

A614 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: L36X
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” (2.00) or better in A311 or A315

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.
Prerequisite: grade “C” (2.00) or better in both A511 and A512 or LA512, or grade of “C” (2.00) or better in A516

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.
Prerequisites: A532 or permission of the program director

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: A532 or LA533

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.
Prerequisites: A321, co-registration in A712 or permission of the program director

A623  1-4-3  Visualization: Advanced Modeling
This advanced, computer-aided design, elective course focuses on complex three-dimensional modeling, 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: A321 or permission of the program director

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: A321 or permission of the program director

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: A321, A346, A515
A628  Visualisation: Multimedia  1-4-3
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: A321 or G312, or permission of the director

A631  Historic Preservation  3-0-3
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: A342; LA341 or A346; and A312, A316, or LA312

A632  Building Preservation  2-2-3
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, 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: A321; A342, LA341 or A346; and A312, LA312 or A316

A633  Restoration/Rehabilitation Interiors  2-2-3
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. This course replaced T780.
Prerequisites: A342 or LA341; A531 or LA532; and A312, LA312 or A316

A636  Habitat/Housing  1-4-3
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: A342 or LA341

A637  Architecture in Education  1-4-3
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: A312 or LA312; A341; pre- or co-registration in L61X; and the ability to travel to sites away from campus

A640  Construction Management  3-0-3
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: A312 or A316, and A342 or A346

A703  Theories of Architecture: Seminar  3-0-3
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: A532 or LA533

A711  Design VII: Elective Studio  0-12-6
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. A711 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” (2.00) or better in both A511 and A512 or LA512; or grade of “C” (2.00) or better in A516 and approval of the program director
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 will be studied as a means to communicate design intentions.
Prerequisites: A532, A542, concurrent enrollment in A622, a grade of “C” (2.00) or better in both A511 and A512, or permission of the program director

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.
Prerequisites: grade of “C” (2.00) or better in both A511 and A512, or grade of “C” (2.00) or better in A516, and permission of the instructor or program director

A717 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 addresses them. Students are expected to generate an individualized program for design development. This program, the thesis document, will be the result of analysis and clear definition of project parameters. The process of generating this document will recapitulate and augment the programming process, which students have been exposed to in previous interior design studios. This course replaced T757.
Prerequisites: grade of “C” (2.00) or better in A516, and approval of the faculty and program director

A718 0-12-6
Thesis in Interior Design
The interior-design thesis semester provides students with an opportunity to focus on an area of concentration and a design project to be independently developed with a designated faculty member. The student must demonstrate aptitude and understanding of architectural and interior-design theory and principles, as well as design competence. The thesis project includes research in the student’s selected problem area, development of the design concept and creative presentation of the design investigation. This course replaced T785.
Prerequisites: A717, grade of “C” (2.00) or better in A711 or A715, and approval of the faculty and program director

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” (2.00) or better in both A511 and A512, or grade of “C” (2.00) or better in A516, or grade “C” (2.00) or better in T808

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.
Prerequisite: grade of “C” (2.00) or better in both A511 and A512, or grade of “C” (2.00) or better in A516

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: A542

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: A743
A745
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.
Prerequisite: A346

A753
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: A346 and grade of “C” (2.00) or better in A516

A762
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” (2.00) or better in both A511 and A512 or LA512; or grade of “C” (2.00) or better in A715

A791
Architecture and Interior Design 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, particular 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.

A810
Architecture Thesis and Research Preparation
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” (2.00) or better in A712, and faculty committee review and acceptance of student’s portfolio, thesis intent and academic record

A811
Design IX: Architecture Studio
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: A742, A743, grade of “C” (2.00) or better in A712, or permission of the program director
Co-requisite: A845 or permission of the program director

A812
Design X: Architecture Studio
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 (A810) requiring design exploration; development and testing of design proposals reviewed by faculty and thesis committee members.
Prerequisites: grade of “C” (2.00) or better in both A810 and A811, and approval of the program director and faculty

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.
Prerequisite: grade of “C” (2.00) or better in A811, or approval of the program director

A841
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: A542
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:** A851

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:** A541

A845  
**Technology V: Advanced Lab**  
A companion to A811: 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.  
**Prerequisite:** A742, A744, grade of “C” (2.00) or better in A712, or permission of the program director. Co requisite: A811

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, and 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” (2.00) or better in both A511 and A512 or LA512

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:** A851

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.

**Business Administration**

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.

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.

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.

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:** IS16
B141  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: B122, B123, and L132 or L141; pre- or co-requisite: B152 or M141

B144  Total Quality Management  
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: M141 or B151; B123; B221; pre- or co-registration in M141 or B151

B145  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: B162

B147  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: B123

B148  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.  
First offered Spring 2006  
Prerequisite: B221

B149  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: T916

B150  Statistics II  
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” (2.00) or better in B151

B151  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: B123, junior status

B160  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 U.S., 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: B123, junior status
B162 Human Resource Management 3-0-3
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: B123, junior status

B165 Organizational Politics and Negotiations 3-0-3
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: B123, junior status

B168 International Management 3-0-3
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. Lectures, readings, exercises and cases will be used.
Prerequisites: B123

B170 Entrepreneurship Seminar 3-0-3
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: B123, B221, senior status

B171 Business Policy and Strategy (writing intensive) 3-0-3
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.
Prerequisites: senior status, B122, B123, B221, B642

B172 Management Seminar 3-0-3
This challenging course integrates and extends concepts from other 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 co-requisite: IS16

B176 Colloquium in Management 3-0-3
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.

B179 Diversity Management 3-0-3
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, B176.
Prerequisites: B123

B180 Textile, Retail and Apparel Business Policy and Strategy (writing intensive) 3-0-3
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.
Prerequisites: senior status, B123, B221, B642, T101, T901

B183 Health Services Delivery System 3-0-3
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.
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 B123 Principles of Management as a prerequisite for subsequent courses.

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: B183, B184

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: B123 or B184, junior status

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

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.
Prerequisite: B221

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: B221

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: B221

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.

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 promotions, 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: B231

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: B221

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: B221

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: B221
**B251 Merchandise Buying/Operations** 3-0-3

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: B122, B241*

**B261 Marketing Research** 3-0-3

Exposure to marketing-research techniques and procedures used in gathering, recording, analyzing and reporting of data related to marketing problems.

*Prerequisites: B221, B231, and pre- or co-requisite B152*

**B262 Marketing Strategy Seminar** 3-0-3

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 co-requisites: B231, B240, B261*

**B299 Independent Study in Marketing** 0-0-3

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."

*Prerequisite: permission of the faculty member and the dean of the School of Business Administration*

**B301 Survey of Business** 3-0-3

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.

**B303 Survey of E-Commerce** 3-0-3

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.

**B333 E-Site Design** 2-2-3

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.

*Prerequisite: permission of the director of Graphic Design Communication; for Graphic Design or Digital Design majors.*

**B403 Financial Accounting** 3-0-3

Designed to introduce all business students to the field of accounting, the course covers the fundamental principles of accounting, highlighting balance sheet and income statement presentation. Primary emphasis on accounting as a source of financial information, with procedural details kept to a minimum.

**B421 Business Law I** 3-0-3

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.

**B422 Business Law II** 3-0-3

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: B421*

**B423 Managerial Accounting** 3-0-3

Objective analysis and interpretation of accounting information. Use of accounting information as a basis for planning, control and managerial decisions.

*Prerequisite: B403 (may not be taken by accounting majors)*

**B441 Intermediate Accounting I** 3-0-3

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: B403*
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: B441

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: B442

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: B441

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: B403

B464 3-0-3
Auditing
Principles, standards and procedures of auditing. Emphasis upon the public accounting profession, its current pronouncements, practices and problems.
Prerequisite: B442

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: B443

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: B463

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

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: B642

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: B642

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: B403, and B151 or M141

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: B122, B642

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: B642, E821, E822

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: B642
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: B642, E821, E822

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 co-requisites: B641 or E843, B643, B661

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

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.

Chemistry
(See L312 for General Chemistry for Non-Science majors and L321 for Science and Engineering majors)

C112 3-4-4
Chemistry II
(required for science majors)
Continuation of L321 Chemistry I. An introduction to liquids and solids, solutions, rates of reactions, acids and bases, thermodynamics and equilibrium and electrochemistry. Further descriptive chemistry is given. The laboratory emphasizes additional physical and analytical techniques to reinforce and clarify major concepts of the course. Required for science majors.
Prerequisite: L321

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: L321

C121, C122 3-4-4, 3-4-4
Organic Chemistry I and II
A mechanistic approach to the study of the reactions of organic chemistry. The study of the functional groups is integrated under mechanistic classifications. Emphasis placed on developing an awareness of synthetic schemes. The laboratory stresses development of techniques in the first semester and a complete multi-step synthesis in the second semester. For science majors.
Prerequisite: C112

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: C112, grade of “C” (2.00) or better in S212

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 chemi-
cal 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:** C122, S116, and pre- or co-requisite M113

**C132**  
**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 C131 with an emphasis on spectroscopy.

**Prerequisite:** C131

**C142**  
**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:** C132

**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:** C122

**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:** C171

**C193**  
**Instrumental Methods of Analysis**
Theory of ultraviolet, infrared, nuclear-magnetic resonance and mass spectroscopy is studied. These techniques are utilized to elucidate the structure of organic and inorganic molecules.

**Prerequisite:** C122

**C199**  
**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, computational chemistry.

**Prerequisite:** C122

**C231**  
**Research I**
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

**C232**  
**Research II**
Continuation of C231

**C281, C282**  
**Independent Study 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.

**Textile Chemistry**

**C501**  
**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:** L312 or L321, L111
Digital Design

D322 2-2-3
Principles of Digital Design
This introductory course covers the basics of electronic design. Issues of type on screen, composition and visual literacy will be a focus. Students will design and produce their own Web page as the major project of the course. May not be taken by Digital Design majors.

D323 1-5-3
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: A112 or T702 or permission of the Digital Design program director

D511 0-10-5
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: G312 or A312 and admission to the Digital Design program or permission of the Digital Design program director

D512 0-10-5
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: D511

D625 1-5-3
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: D323 or approved equivalent

D627 1-5-3
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: D323 or approved equivalent

D628 1-5-3
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: D323, or approved equivalent, or permission of the Digital Design program director

D629 1-5-3
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 will develop essential skill sets such as storyboarding, video capture, editing and compositing. A final, student-defined project will demonstrate mastery of the conceptual and technical aspects of digital-video design and production.
Prerequisite: D323 or approved equivalent, or permission of Digital Design program director

D630 1-5-3
3D Modeling
This course exposes students to the conceptual and technical aspects of three-dimensional modeling, photo-realistic rendering 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: D323 or approved equivalent, or permission of Digital Design program director

D704 3-0-3
Theory of Electronic Communications 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, revolutionized by the information explosion.
Prerequisite: Admission into Digital Design program
D711 0-10-5
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 animation 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: D512

D712 0-10-5
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: D711 or D713, D810

D713 0-10-5
Digital Design and Visualization Studio
This studio is required for completion of the Digital Design degree. Topics covered include advanced 3D modeling, animation, texture mapping, digital enhancement and the creation of virtual architecture. The major theoretical structure of the course will include discussion of the impact of the computer on the design process and the development of new forms and spaces enabled by digital technology. Students will complete a series of short projects in preparation for a more complex final design project. 
Prerequisite: D512 or permission from the Digital Design program director

D714 3-0-3
Web Production
This course will explore the Web markup languages, HTML, CSS and JavaScript, 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: D511 or D625

D763 0-4-2
Electronic Portfolio
This course develops the student’s ability to conceive, design and produce an innovative and expressive electronic portfolio. Issues of hardware compatibility, multiple platforms and electronic publishing will be explored as students develop their personal portfolio. 
Prerequisite: D512

D810 3-0-3
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: D512E-Commerce

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.

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.

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: E821, E822

E843 3-0-3
Money, Banking and Monetary Policy
Prerequisites: E821, E822

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. 
Prerequisites: E821, E822

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
Engineering

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.
First offered in Fall 2006

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: L141 or L132
(Formerly T802)

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.
(Formerly CS09)

EN301  3-0-3
Engineering Statics
Engineering statics describes the mechanical behavior of materials and systems in equilibrium using Newton's laws of motion. In this course, students will learn the principles of force equilibrium, how to construct free-body diagrams, understanding distributed forces, friction and introductory structural response.
Prerequisites: L325, M113
(Formerly T807)

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: EN301, M122
(Formerly T808)

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.

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: EN301
First offered Fall 2007

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: EN102
First offered Spring 2008

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: L142, EN505

EN504  3-0-3
Fluid Mechanics and Heat Transfer
Prerequisite: EN302, S116
First offered Fall 2008

EN505  4-0-4
Engineering Statistics
Explores the fundamentals of statistical analysis. Topics include discrete and continuous probability models, confidence intervals, tests of hypotheses, regression analysis, essentials of statistically designed experiments, and engineering application of statistical methods. Extensively utilizes statistical analysis software. Additional topics include probability models, multi-variable analysis, step-wise design of statistical experiments, multiple regression, response surface analysis, distribution of random vectors, and function of random variable sample statistics.
Prerequisite: grade of "C"(2.00) or better in L142
First offered Fall 2007

2005 - 2007 Undergraduate Catalog
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EN506 3-0-3
Fundamentals of Electrical Engineering
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: S116
First offered Spring 2009
(Formerly T853)

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.
(Formerly E835)

EN512 2-2-3
Managerial Engineering
Principles of ISE applied to design of an organization’s physical facilities and operating systems. Analysis and measurement of human work applied to work system design. Laboratory and interdisciplinary community projects.
First offered Spring 2008

EN514 3-0-3
Manufacturing Quality Control
Analysis of factors affecting product quality during manufacturing; process control charts; process capability studies; error of measurement; sampling plans; motivation; programs; quality audit; organization.
Prerequisite: T842
First offered Fall 2008

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

EN606 3-2-3
Textile Engineering II (Planar Assemblies)
Prerequisite: EN604I
First offered in Spring 2009

EN607 3-2-3
Textile Engineering III: Nonwovens and Chemical Processing
This lab based course will focus on the production and evaluation of nonwoven fabrics, including web forming and bonding methods, and on coloration techniques, including dyeing and printing as well as aesthetic and functional finishing.
Prerequisites are: EN606 and L321
First offered in Fall 2009

EN608 3-2-3
Textile Engineering IV: Advanced Fibrous Materials
Mechanics and processes for producing functionally-advanced fibrous materials. Architectural, aerospace, recreational and biomedical application of textiles. Concepts of advanced fiber composites will be covered.
Prerequisite: EN607
First offered in Spring 2010

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.
Prerequisite: B155
First offered in Spring 2008

EN617 3-0-3
Production Planning and Control
Inventory management, forecasting, production systems, aggregate and workforce planning, production scheduling.
First offered in Spring 2009

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
EN627 3-0-3
Automatic Control Theory
Prerequisite: M122
First offered in Spring 2009

EN628 3-0-3
Thermodynamics 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: EN703
First offered in Spring 2010

EN647 3-0-3
Modeling Pollutant Fate and Assessing Risk
This course applies the scientific principles describing chemical movement and fate in the environment (air, water, and earth) to mathematical models that can be used as tools for environmental risk assessment. Students will use STELLA, an icon-based modeling platform to formulate, calibrate, validate, and implement their own environmental transport and fate models. 
Prerequisite: L142 and L321
First offered in Fall 2009

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: C112

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 L61X, First offered in Spring 2010

EN703 3-0-3
Thermodynamics and Heat Transfer
First offered in Fall 2009

EN711 3-0-3
Simulation
Procedures and rationale for planning, designing and implementing computer simulation experiments used to analyze human-machine systems in engineering, business and social sciences. 
Prerequisite: B156
First offered in Fall 2008

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: EN502
First offered in Fall 2008

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: EN713, EN715
First offered in Fall 2009

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EN715  Logistics Engineering  3-0-3  
Logistics terms and definitions; logistics as a design process; supply chain concepts, analyzing, designing and implementing logistics systems.
Prerequisite: B156
First offered in Fall 2008

EN717  Facility Planning  3-0-3  
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 decision-making. Computer solutions for layout problems and mathematical models for location problems.
Prerequisite: T843
First offered Spring 2009

Graphic Design Communication

G311  Design III for Graphic Design Communication  0-8-4  
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” (2.00) or better in T702 or permission of the director of the GDC program

G312  Design IV for Graphic Design Communication  0-8-4  
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 computer component will explore vector-based draw programs. The course will also introduce three-dimensional structures and systems, including the study of the Platonic solids.
Prerequisite: grade of “C” (2.00) or better in G311 or permission of the director of the GDC program

G511  Design V for Graphic Design Communication  0-8-4  
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” (2.00) or better in G312 or permission of the director of the GDC program

G512  Design VI for Graphic Design Communication  0-8-4  
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” (2.00) or better in G511

G621  Introduction to Photography for Graphic Design Communication  1-5-3  
This course is the required photography class for Graphic Design 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: T702 or permission of the director of the GDC program

G622  Studio Photography  1-5-3  
This course is an introduction to studio photography and large-format cameras. Emphasis is placed on the use of lighting, props and setting as factors in the photography of objects for commercial, fashion, advertising and product design and documentation.
Prerequisite: G621 or permission of the director of the GDC program

G626  Digital Imaging and Photographic Manipulation  1-5-3  
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: A312 or A316 or G312 or I312

G631  Production Methods for Graphic Design Communication  1-5-3  
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” (2.00) or better in G312, or permission of the director of the GDC program

G634  Advanced Publication Design  1-5-3  
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” (2.00) or better in G312, or permission of the director of the GDC program
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: grade of “C” (2.00) or better in G312, or permission of the director of the GDC program

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” (2.00) or better in G312, or permission of the director of the GDC program

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” (2.00) or better in T713, or permission of the director of the GDC program

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” (2.00) or better in 512

G712 0-12-6
Capstone in Graphic 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” (2.00) or better in G711, and faculty approval, or permission of the director of the GDC program

G991 0-0-3
Independent Study in Computer Graphics
For further details, see general description of Independent Study in “Academic Policies” section.
Prerequisites: G511, G626 and permission of the instructor

G993 0-0-3
Independent Study in Photography
For further details, see general description of Independent Study in “Academic Policies” section.
Prerequisites: G622, G626 and permission of the instructor

Humanities and Social Sciences

H99 3-0-(3)
Fundamentals of College Writing
This course is designed for students who need additional preparation before taking L111, 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” (2.00) or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.”

H99 3-0-(3)
ESL: Fundamentals of College Writing
This course is specifically designed for students who do not have English as their first language, and need additional preparation before taking L111 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 H99ESL after designated faculty members have evaluated a writing sample. Credits may not be applied toward graduation requirements. Students must earn a “C” (2.00) or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.”

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.
H323  
Introduction to Photography  2-3-3  
This course is designed to stimulate visual awareness by encouraging students to use the camera as a tool for recording information as they examine their surrounding environment. Students will explore the mechanics of the camera and its function in order to produce photographic prints by learning darkroom procedures, then analyzing choices for pictorial presentation. Photography as documentation, record keeping, social commentary and creative expression will also be analyzed and studied through the works of photojournalists, fashion photographers, advertising designers and family snapshots. May not be taken for College Studies credit.

H399  
Independent Study in the Humanities  0-0-3  
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.

**Psychology/Biopsychology**

H801  
Introduction to Psychology  3-0-3  
Introduction to the methodology, concepts, principles, and issues in the study of behavior. Topics to be covered include: the biological bases of behavior; sensory and perceptual 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.

H802  
Psychological Applications of Statistics I  3-0-3  
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: H801

H803  
Psychological Applications of Statistics II  3-0-3  
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: H802

H804  
Introduction to Experimental Psychology  2-2-3  
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: H803

H805  
Senior Colloquium in Psychology  3-0-3  
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 discuss material with the class. Finally, students will propose a question generated from this activity and design a research structure to answer it.  
Prerequisites: H804, H890

H812  
Clinical Psychology  3-0-3  
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: H823

H822  
Personality Theory  3-0-3  
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: H801

H823  
Abnormal Psychology  3-0-3  
Consideration of the various classifications and symptomatology of psychopathological disorders — their origin, assessment, prognosis, treatment and prevention.  
Prerequisite: H801

H824  
Counseling Psychology: Theories and Principles  3-0-3  
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: H801
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: H801

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: H801 or permission of the instructor

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: H801

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: H801

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: H801

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: H801

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: H801

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: H801

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: H801

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: H801

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: H801

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: H801
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: H881

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: H881

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: H801

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 deviance theory, will also be discussed.
Prerequisite: H801

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 be expected to conduct several research projects and one original research project as part of a research team. Students will be required to present their results in an APA-style study report.
Prerequisites: H804 and completion of at least 21 credits in psychology courses

H896 3-0-3
Special 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; e.g., sleep and dreaming, educational psychology, altered state of consciousness, humor. Topic selection will be at the discretion of the instructor.
Prerequisite: H801

H899 0-0-3
Independent Study in Psychology
For further details, see general description of Independent Study in “Academic Policies” section.

Industrial Design

I111 0-8-4
Design I for Industrial Design
This studio is an introduction to design for undergraduate majors in industrial design. The course will provide an intensive introduction to design as an iterative problem-solving process; it will also introduce strategies for making and analyzing form, and present basic techniques of two-dimensional visualization and documentation of three-dimensional objects and principles of design critique, testing and research.

I112 0-8-4
Design II for Industrial Design
This studio introduces methods, materials, and vocabulary of the industrial design profession, as well as design as a rational, iterative process of problem solving based on working creatively within constraints. Working with materials, digital and hand tools, shop processes and presentation techniques used by professionals are emphasized. It is intensive in industrial design drawing, including sketches, development drawings, orthographic, axonometric and perspective renderings, as well as beginning drafting as used in industrial design, with dimensioned assembly and parts drawings.
Prerequisite: grade of “C” (2.00) or better in I111 or A111 or Permission of the director of the InD program.

I113 0-8-4
Design III for Industrial Design
This course focuses on creative problem-solving techniques using drawing, sketch modeling and basic shop skills. Students are exposed to a wide choice of materials, which industrial designers use to move their projects forward. Students will use several media for the purpose of documenting projects in progress, for duplication and for presentation purposes. Emphasis is placed on the improvement of craft in the execution of projects.
Prerequisite: grade of “C” (2.00) or better in I112

I114 0-8-4
Design IV for Industrial Design
During the fourth in a series of eight studios, designs are conceived which explore the dynamics between objects and the user’s senses and emotions. Students are challenged to improve their ability to define problems, generate concepts, evaluate these and offer refinements of solutions. Students will use basic imaging techniques in the presentation of design solutions.
Prerequisite: grade of “C” (2.00) or better in I113
I321 Materials and Process: Shop Techniques 2-4-3
This course introduces shop techniques as they pertain to industrial design model-making and prototype construction. All Industrial Design students must take this course for shop equipment safety training and pass a safety test. Throughout the semester, attention is given to safety precautions for the shop, along with demonstrations of shop equipment and fabrication processes. A major portion of the course will consist of developing an understanding of the materials and machinery commonly used by industrial designers for producing both working and appearance models.
Prerequisite: grade of “C” (2.00) or better in I111

I322 Materials and Process: Manufacturing 2-4-3
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” (2.00) or better in I111

I332 Ergonomic Studies 2-2-3
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: I112 or permission of the instructor

I342 CAD I for Industrial Design 1-4-3
The course introduces students to computer-aided design with a focus on the industrial design processes. In an interactive 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: I112 or permission of the instructor

I351 Rendering for Industrial Design 1-4-3
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: T713 or permission of the instructor

I511 Design V for Industrial Design 0-8-4
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” (2.00) or better in I312

I512 Design VI for Industrial Design 0-12-6
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” (2.00) or better in I511

I531 History of Design and Communication 3-0-3
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.

I532 Design History/Theory 3-1-3
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: I531 or permission of instructor

I621 CAD II: Digital Design Techniques 1-4-3
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 models and animation software, as well as vector-based, desktop-publishing programs and bitmap-based programs.
Prerequisite: grade of “C” (2.00) or better in I342, or permission of the instructor
I633  
**Drawing III: Design Development**  
1-5-3  
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:** T713 and I322 or (interior, fashion architecture and graphic design equivalents of I322) or permission of the instructor

I711  
**Design VII for Industrial Design**  
0-12-6  
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” (2.00) or better in I711, I851, and concurrent enrollment in I862

I712  
**Design VIII for Industrial Design**  
0-12-6  
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” (2.00) or better in I512, and concurrent enrollment in I862

I851  
**Professional Practice I**  
2-2-3  
(writing intensive)  
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.  
**Prerequisites:** grade of “C” (2.00) or better in I512

I862  
**Professional Practice II**  
2-2-3  
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” (2.00) or better in I711, I851, and concurrent enrollment in I712

I891  
**Independent Study in Industrial Design**  
0-0-3  
For further details, see general description of Independent Study in “Academic Policies” section.  
**Prerequisites:** I512 and permission of the instructor

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**Information Systems**

IS10  
**Survey of Programming Languages**  
3-0-3  
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. This course replaced CS52.

IS11  
**Database Analysis, Design and Management**  
3-0-3  
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. This course replaced B136 and CS82.  
**Prerequisite:** IS12 or IS16

IS12  
**Programming for Problem Solving**  
3-0-3  
This course introduces an appropriate high-level programming language or languages and explores computer solutions 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. This course replaced B131.  
**Prerequisite:** IS10

IS13  
**Computer Networking**  
3-0-3  
This course offers students an in-depth study of computer networks and their role in the information technology infrastructure of an enterprise. Topics will include logical and physical organizations of computer networks, hardware and software, the ISO model, communications protocols especially TCP/IP. Students will study LANs, MANs, BNs and WANs. Network design, management, performance, control, encryption and security will be discussed. The University’s computer equipment will be used for hands-on, network-management assignments. This course replaced B166 and CS83.  
**Prerequisite:** junior status, or permission of the instructor
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: L132

IS15  3-0-3
Data Analysis for Decision Making
This course continues the development of students’ skills in data analysis and modeling. Emphasis will be on data warehousing and data mining. Topics will also include non-relational databases and management systems such as object-oriented systems, distributed multi-user systems, legacy systems, and the problems inherent in very large databases. Emphasis will be on the underlying support these databases give to companies’ e-commerce activities. This course replaced B138.
Prerequisites: IS10, IS11

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. This course replaced B163.
Prerequisite: B122

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. This course replaced CS12.

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. This course replaced CS23.
Prerequisite: IS10

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. This course replaced CS31.
Prerequisite: IS10

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 IS12. 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. This course replaced B177.
Prerequisite: IS12

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. This course replaced CS10.
Prerequisite: IS10 or permission of the instructor.

IS53  3-0-3
Programming In C++
This course is the continuation of IS51 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++. This course replaced CS11.
Prerequisite: IS52

IS73  3-0-3
Foundations of Artificial Intelligence
Overview of the computational and knowledge engineering issues and techniques used in AI, 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. This course replaced CS73.
Prerequisite: IS52
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, management-staff interfaces. This begins with 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.
Prerequisites: L-132 or a more advanced math course

IS83 3-0-3
Operating Systems
Study of operating system concepts common to various classes of computers, including file systems, CPU scheduling, memory management, virtual memory, disk scheduling, deadlocks, concurrent processes and programming, protection and security and distributed systems. Exploration of various aspects of specific systems (e.g., UNIX, VMS, MS-DOS, Windows). This course replaced CS81.
Prerequisite: IS52 or permission of the instructor

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. This course replaced CS85.
Prerequisite: IS10

IS91 3-0-3
Special Topics
This course provides an in-depth treatment of recent advances in subjects of current interest in the field of computer science. The special topics in a given semester will be announced before registration. Programming projects in a language selected by the instructor. Oral and/or written reports are required. This course replaced CS91.
Prerequisite: junior status.

IS98 0-0-3
Independent Study in Information Systems
This course allows students to pursue topics not covered in the regular program. The student will either: (1) study in some detail a topic of their choice (subject to faculty approval); or, (2) write a substantial documentation. The University retains the rights of use.) The faculty supervisor will test the student on the material. An oral presentation of the results of the study will be required. This course cannot be taken to replace a required course.
For further details, see “Independent Study” in the “Academic Policies” section.

Continuing and Professional Studies

All Continuing and Professional Studies courses are available only in an accelerated format

J100 3-0-3
Professional Practice Seminar
The 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

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.

J111 3-0-3
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.

J112 3-0-3
Finding and Evaluating Statistical Data
(writing intensive)
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, socioeconomic 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.
**J113 Communication Theory and Practice** 3-0-3
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.

**J114 Introduction to Information Systems** 3-0-3
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.

**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: J112

**J122 Visual Literacy** 3-0-3
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.

**J123 Organizational Ethics** 3-0-3
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.

**J123 Cross-Cultural Communication and Diversity Management** 3-0-3
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.

**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.

**J202 Globalization and World Politics** 3-0-3
This General Education Core course provides an overview of the forces which are shaping global economics and politics. Students 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 also examine the process of economic globalization in order to understand its varying impacts on different world regions.

**J203 The Social Science of the Workplace** 3-0-3
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.

**J204 Professional Communication Skills** 3-0-3
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.

**J210 Professional Studies Capstone Seminar** 3-0-3
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.
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.

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.

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.

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 healthcare 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: J132, J301, J302, and J303

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 workforce. Training development includes needs analysis, programming and evaluation.  
*Prerequisite: B162

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: B162

J403  Organizational and Employee Relations  3-0-3
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: B162

J410  Applied Research and Practice in Human Resource Management  3-0-3
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: J401, J402 and J403

J501  Information Technology I  3-0-3
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.  

J502  Information Technology II  3-0-3
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: J501

J503  Database Management  3-0-3
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: J502
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: J503

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: J505

J525 3-0-3
Business Capstone Seminar
In development

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.

J610 3-0-3
Applied Project in Behavioral and Health Services
Using the principles learned in CPS Core coursework, and/or applied psychology, neurorehabilitation, 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

J701 3-0-3
Writing and Speaking for Media Relations
In Development

J702 3-0-3
Hypertext Authoring
In Development

J703 3-0-3
Narrative Structures in Professional Communication
In Development

J704 3-0-3
Technical Writing
In Development

J710 3-0-3
Internship in Professional Communication
In Development

College Studies

L101 1-0-1
Topics in Professionalism
Students will develop a critical understanding of professionalism and related skills, which will serve as a foundation for their collegiate experience, as well as their professional careers. This course will explore a wide variety of issues relating to professionalism in the workplace and the University community.

Writing Seminar I
The first of two core writing-specific courses in the College Studies Program, Writing Seminar I is 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 will have a specific topic, which will focus on aspects of the American cultural experience.

L111 3-0-3
Writing Seminar I
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 the American cultural experience. 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.

L111 3-2-3
ESL: Writing Seminar I
This course parallels L111, yet is specifically designed for students whose first language is not English. As does L111, 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 H99ESL or, after submitting a writing sample, be placed by a designated faculty member.
Science I
The first of two science courses, this core course uses an integrated approach to study a topic.

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.

Quantitative Reasoning
Students will take two courses in mathematics. The specific course sequence will depend upon the student’s major and the level of mathematics with which the student enters the University. Students must take the highest level of mathematics for which they are qualified. The two-course sequences are:

  L130/131 Finite Mathematics and L132 Introduction to Calculus
  OR
  L135 Pre-calculus and L132 Introduction to Calculus
  OR
  L135 Pre-calculus and L141 Calculus I
  OR
  L141 Calculus I and L142 Calculus II

L130 3-2-3
Finite Mathematics
While the content of L130 is identical to that of L131, more time is devoted during the semester to the review and use of elementary mathematical operations. See L131 for content.

L131 3-0-3
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 L132) include polynomials (esp. linear and quadratic), rationals, exponentials and logarithms. Applications are made to finance, including annuities. In addition, simultaneous linear equations, Gaus-Jordan elimination, matrix algebra and linear programming are covered.

L132 3-0-3
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: L130 or L131 or L135

L135 3-0-3
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.

L141 4-0-4
Calculus I
Functions, slope and rate of change, limits, derivatives of algebraic functions, maxima and minima applications. Knowledge of algebra, geometry and trigonometric functions is assumed.

L142 4-0-4
Calculus II
Differentiation and integration of transcendental functions. Theory and methods of integration and applications. Prerequisite: L141

Arts and Cultures
The controlled distribution offerings for this group will introduce students to aesthetic modes of perception and their significance. Although offerings may differ in content and focus, students in all courses will gain some knowledge of the means of artistic expression and a sustained engagement with at least one artistic medium. A student receives College Studies credit for only one offering within this distribution group.

L151 3-0-3
The Performing Arts
The purpose of this course is to help students acquire a critical appreciation both for the process of creating various forms of art and for the final products. The course will also explore how aesthetic values are influenced by society. Each semester, students study selected examples of theater, musical theater, opera and dance. Students will be required to attend professional performances in the Philadelphia area. This course may be used to satisfy a College Studies requirement, as well as free elective credits.

L152 3-0-3
Ideas and Images
Ideas are the "real" subjects of artists and designers. Beginning with analysis of basic visual and compositional elements, students will discover how artists and designers have created images that express and reflect cultural ideas and values. Historical and cross-cultural connections are emphasized in a seminar approach. This course may be used to satisfy a College Studies requirement, but not free elective credits. May not be taken by any design or architecture major.

L155 3-0-3
Music
Music is an important form of human expression and creativity. In this course, music appreciation is combined with attention to why certain societies produced particular kinds of music. Previous knowledge of music not required. This course may be used to satisfy a College Studies requirement as well as free elective credits.
L158 3-0-3  
Art in Context  
Explorations of what music, painting and poetry have in common. How is the “spirit of an age” expressed in a variety of arts? This course explores the connections between the visual arts and other kinds of artistic expression. Students are assumed to have a basic understanding of art history, and will be expected to use that knowledge as a frame of reference from which to approach other arts and art ideas. Multimedia, exploratory, seminar-type format. This course may be used to satisfy a College Studies requirement, as well as free elective credits.  
Prerequisites: A532 or T772  
Note: T771, T772 and A331 also fulfill the Arts and Cultures requirement.

L171 3-0-3  
The Rise of the Modern World: 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.

L172 3-0-3  
The Rise of the Modern World: 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.

L173 3-0-3  
The Rise of the Modern World: 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.

Science II  
Students will select a three- or four-credit course in this category. Some major programs will stipulate which course to take. Non-science majors will choose from L311, L312 or L313. Interior Design, Industrial Design and Architecture majors will complete L313. Landscape Architecture majors will complete L311. Science majors will complete L321 Chemistry I and L323 Biology I. Textile Design, Fashion Industry Management, and Textile Engineering Technology majors will complete L312.

L311 3-2-3  
General Biology  
(for non-science majors)  
Designed to introduce students to the fundamental concepts of biology, particularly as they apply to contemporary issues. Discusses the structure and physiology of living organisms with focus on human systems, genetics and evolutionary theory and evidence. Topics of interest include the diversity of life, inheritance of human traits and genetic disorders, bioethics and human health and disease. The laboratory portion of the course includes microscopic examination of cells and organisms, experimentation and analysis of results.  
Prerequisite: L121

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.  
Prerequisite: L121
L313  
**General Physics**  
*(for non-science majors)*

The basic laws of mechanics and thermodynamics are covered. The emphasis will be on understanding the major laws of physics and the way they manifest themselves in practical applications and in laboratory experiments. The areas of importance for architecture and interior design, such as sound and illumination, are discussed.  
*Prerequisites: L121; L130 or L131 or L135 or L141*

L314  
**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.  
*Prerequisite: L121*

L321  
**Chemistry I**  
*(required for Science and ISE majors)*

This course introduces the fundamental laws and theories of chemistry, including properties of matter, chemical reactions and stoichiometry, properties of gases, energy and thermodynamics, atomic structure and the periodic table, molecular structure and chemical bonding. Descriptive chemistry of representative elements and compounds is presented. The laboratory, which includes syntheses, as well as physical and analytical methodologies, gives the student an opportunity to explore first hand many of the key concepts and ideas of the course. Basic knowledge of algebra, geometry and trigonometry is presumed. Students enrolled in M99 may not take this course. This course is not recommended for students enrolled in H99 or R99 fundamentals courses.  
*Prerequisite: L121*

L322  
**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 S212 Biology II are the introductory courses for science majors.

L325  
**Physics I**  
*(required for Science and ISE majors)*

A calculus-based course emphasizing Newton’s three laws of motion and the conservation laws of energy, linear momentum and angular momentum as first integrals of the dynamics. Additional topics in mechanics include stress and strain, simple harmonic motion and hydrostatics. Absolute temperature scales, thermal expansion, specific heats, methods of transfer of heat energy, ideal gases and real gases are considered before studying the first and second laws of thermodynamics, with the concept of entropy emphasized in the latter.  
*Prerequisite or co-requisite: L142*

### Area Studies and 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 305).

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.

### Foreign Languages

Beginning-level, professional language courses are offered in the following:

- L341, L641 Professional Japanese I and II
- L342, L642 Professional Spanish I and II
- L343, L643 Professional French I and II
- L345, L645 Professional German I and II
  (offered infrequently)
- L346, L646 Professional Italian I and II

**In the Foreign Language I courses (L34x), students learn vocabulary and grammar at the beginning level and study cross-cultural issues so as to interact appropriately in a professional or social setting. Courses are taught in the target foreign language and emphasize proficiency in all four communicative skills (reading, writing, listening, and speaking). Classroom time is highly interactive and supplemented with visual and audio material and supporting software programs.**  
*Prerequisite: none.*
The Foreign Language II courses (L64x) are at the advanced-beginner 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” (2.00) or better in L64x, or a minimum of two years of high school language study, or permission of the instructor.

Intermediate level professional language courses are offered in the following:
L741, L841 Professional Japanese III and IV
L742, L842 Professional Spanish III and IV
L743, L843 Professional French III and IV
L746 Professional Italian III

The Foreign Language III courses (L74x) 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 e-mail correspondence with foreign professionals.

Prerequisite: grade of “C” (2.00) or better in L64x, or a minimum of three years of prior high school foreign language study, or permission of the instructor.

The Foreign Language IV courses (L84x) 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” (2.00) or better in L74x, or a minimum of four years of high school language study, or permission of the instructor.

Independent study in a foreign language (L959) may be offered by individual appointment for students who wish to continue beyond the Foreign Language IV level.

Area Studies

Area Studies courses offer an interdisciplinary approach to the study of a global region focusing on contemporary trends and issues.

L351 Contemporary Europe
3-0-3
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: L111, L17X

L352 Latin American
3-0-3
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. The course also will explore gender relations and the changing face of resistance.

Prerequisite: L111, L17X

L353 East Asia
3-0-3
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: L111, L17X

L354 Africa
3-0-3
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: L111, L17X

L355 Middle East
3-0-3
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: L111, L17X

L356 Great Britain: British Culture and National Identity
3-0-3
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
L362  
Global Village: Class, Gender and Race  
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. This course may be used to satisfy a College Studies requirement, but not free elective credits.  
Prerequisite: L111, L17X

L363  
Global Village: Personality and Culture  
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. This course may be used to satisfy a College Studies requirement as well as free elective credits.  
Prerequisite: L111, L17X

L364  
Global Village: The Individual and the 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. This course may be used to satisfy a College Studies requirement as well as free elective credits.  
Prerequisite: L111, L17X

L366  
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. This course may be used to satisfy a College Studies requirement, as well as free elective credits.  
Prerequisite: L111, L17X

L367  
Global Politics  
This course provides an overview of the forces which 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 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.  
Prerequisites: L111, L17X

Humanities I  
Controlled distribution courses in this group will focus upon the description and interpretation of human experience through literature, religion, philosophy and ethics. These courses will emphasize primary texts, will often address the ways in which human beliefs and values shape behavior and will include a consideration of ethical reasoning. A student receives College Studies credit for only one offering within this distribution group.

L381  
Worlds of 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, but not free elective credits. This course replaced H505.  
Prerequisite: L111, L17X

L382  
World Philosophies: Africa to Zen  
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?” This course may be used to satisfy a College Studies requirement, as well as free elective credits. This course replaced H601.  
Prerequisite: L111, L17X

L383  
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. This course may be used to satisfy a College Studies requirement, as well as free elective credits. 

**Prerequisite:** L111, L17X

**Writing/Communication Seminar II**

These courses enable sophomore-level students to select a writing course focused on problem solving and thinking analytically about professional concerns. Students address key issues in different disciplines and professions. A student receives College Studies credit for only one offering within this distribution group.

**L611** 3-0-3
**Writing/Communication Seminar II: Business**
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.

**Prerequisite:** L111, L17. May not be taken CR/NC

**L612** 3-0-3
**Writing/Communication Seminar II: Architecture and Design**
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.

**Prerequisite:** L111, L17. May not be taken CR/NC

**L613** 3-0-3
**Writing/Communication Seminar II: Science/Engineering/Technology**
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:** L36X, L38X. May not be taken CR/NC

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**Level II Courses in College Studies**

Courses in the Level II category of College Studies share several characteristics as they pursue liberal-professional connections in student learning. Courses in this interdisciplinary group treat themes or issues in depth and are used to make connections with broad themes in the professional programs — work, science, technology, and design. Level II courses require a greater degree of independent inquiry and higher level of research and communication skills than Humanities I and Social Sciences I. All courses in this category are writing intensive. A student receives College Studies credit for two courses in this distribution group.

**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 the information highway, the creation of a suburban culture and the consequent crisis of old industrial cities.

**Prerequisites:** L36X, L38X

**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:** L36X, L38X

**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:** L36X, L38X

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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: L36X, L38X

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: L36X, L38X

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: L36X, L38X, L611, L674

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: L36X, L38X

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, 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: L36X, L38X

L682 3-0-3
Literature and Society: Caste and Class (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: L36X, L38X

L683 3-0-3
Literature and Society: The Artist and Society (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: L36X, L38X

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: L36X, L38X

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: L36X, L38X

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: L36X, L38X
Contemporary Perspectives
This is a core course required of all students to be taken during the student’s final 30 credits at the University. This course may be viewed as a capstone of the College Studies Program and is to provide students the opportunity to address issues that face their particular major or future professional orientation when they leave the University. It seeks to draw upon previous study both in the major and the College Studies Program.

L911 Contemporary Perspectives (writing intensive)
The capstone seminar of the College Studies program, this writing intensive-course examines the origins and impact of current international trends with an emphasis on the period since World War II. Students also address questions of intercultural understanding at the global, regional and local level. A final research paper requires students to connect these global trends with issues in their profession.
Prerequisites: L61X, and at least one Level II College Studies (i.e., L66X, L67X, L68X) or permission of the dean of the School of General Studies. May not be taken CR/NC

L949 Independent Study in Area Studies
See the statement on Independent Study in the “Academic Policies” section.

L959 Independent Study in Languages
See the statement on Independent Study in the “Academic Policies” section.

Landscape Architecture

LA122 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: T712 or permission of the director

LA312 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” (2.00) or better in A311

LA332 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 regions of the world, produced from the 8th to the 20th 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: A331 or permission of the director

LA341 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: A112 or permission of the director

LA512 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 communities groups. An important component of the experience is community participation.
First offered Spring 2006
Prerequisite: grade of “C” (2.00) or better in LA312

LA521 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.
First offered Spring 2006
Prerequisite: A321 or permission of director

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LA532
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: LA532 or permission of the director

LA533
Landscape Architecture Theory: Seminar
This seminar, the fourth of 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 relationship of landscape architects and their work to culture, technology, politics, stewardship, nature, the designed environment and people.
First offered Spring 2006
Prerequisites: LA532

LA550
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.
First offered Spring 2006
Prerequisite: LA312 or A312 or permission of the director

LA609
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.
First offered Spring 2007
Prerequisites: LA533 or permission of instructor

LA711
Design VII: Elective Studio for Landscape Architecture
Design VII is an elective studio available as an option with the landscape architecture studio sequence. Students may customize their education by selecting a topical studio from several options offered by the School of Architecture. Potential options for LA711 may include, but are not limited to:

Ecological Design and Planning, Urban Design, Digital Design, Study Abroad. Other optional topics include: a Digital Technology studio through the Digital Design program; a design-build studio; or an interdisciplinary studio with the Architecture program.
First offered Fall 2006
Prerequisites: grade of "C" (2.00) or better in A511 and LA512 or permission of the program director

LA712
Design VIII for Landscape Architecture
This course explores the use of plant materials as a design medium. Plant characteristics such as color, seasonal change, texture, form, fragrance, and growth requirements are the focus of design exploration. Students learn to analyze existing gardens through in-class presentations and field trips and to create schematic and detailed planting plans for different types of sites. The course includes the preparation of planting plans, construction details, technical specifications, and cost estimates.
First offered Spring 2007
Prerequisites: Grade of "C" (2.00) or better in A511, LA512, and S462

LA741
Technology II: Materials & Methods
This course develops concepts, methods and techniques for understanding construction materials and assembly techniques related to landscape architecture construction. Students are introduced to materials commonly used in landscape construction (wood, stone and brick, concrete, and asphalt), as well as sustainable landscape construction materials and practices. Methods, concepts, and principles for developing construction details are also covered, including conventional and digital communication techniques. Specialized aspects such as structural mechanics for various materials and uses are emphasized.
First offered Fall 2006
Prerequisites: A321 and LA341

LA742
Technology III: Hydrology
Hydrology examines water-resource issues as they relate to landscape planning, site planning and site design. This includes the theory and techniques associated with soil and water conservation — comprehension of the why, when and where that leads to a selected planning or design strategy. Topics include surface-water hydrology, storm-water runoff estimation, storm-water management techniques, watershed planning/flood routing and impact mitigation, design of open-channel conveyances, and erosion- and sedimentation-control tools and regulations.
First offered Fall 2007
Prerequisite: LA741 or S233
LA808

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.
First offered Fall 2007
Prerequisite: LA553 or permission of instructor

LA809

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.
First offered Spring 2008
Prerequisite: LA553 or permission of instructor

LA810

Thesis Preparation and Research 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, design inquiry and programming. Students are to develop a well-articulated, conceptual framework for their thesis or capstone studio project, LA812 Design X, which includes their thesis topic, method of analysis, a literature review, and detailed work plan.
First offered Fall 2007
Prerequisites: grade of “C” (2.00) or better in LA711 and LA712, and faculty committee review and acceptance of student’s portfolio, thesis intent and academic record

LA811

Design IX for Landscape Architecture
This studio operates much like a professional office. Design topics and scale may vary from year to year. Whatever the design problem, students are to deal with the project from inception all the way through construction documentation. Therefore, this course is closely linked to LA841.
First offered Fall 2007
Prerequisites: LA741, grade of “C” (2.00) or better in LA711 and LA712

LA812

Design X for Landscape Architecture
This course requires comprehensive designs that articulate the physical, spiritual and theoretical, as well as demonstrate full-resolution technical aspects.

Thesis: Students select an area of design concentration (LA810) requiring design exploration, development and testing of design proposals, with review by faculty advisors and thesis committee members.
Prerequisites: grade of “C” (2.00) or better in LA810 and LA811

Faculty Directed Studio: Students choose from available studios and topics requiring individual research, programming, analysis and synthesis during the development and design of a selected project. Construction documentation may be required.
Prerequisites: grade of “C” (2.00) or better in LA811

LA841

Technology IV: Construction Documents
This is the final course of the construction-technology series. The major emphasis of this course 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 projects developed in LA811 (Design IX: Professional Studio); therefore, the two courses are closely aligned.
First offered Spring 2008
Prerequisites: LA711, LA712, and LA742; must be taken concurrently with LA811

LA852

Professional Management for Landscape Architects
This course introduces the ethical, legal, and administrative issues and procedures encountered in numerous forms of landscape architectural practice. Topics include: forms of practice, project management, the ethical and legal frameworks in which professional landscape architectural practice occurs, contractual documents, proposal preparation and fee structuring. Preparing an effective resume and portfolio will conclude the course.
First offered Spring 2008
Prerequisite: A851

Mathematics

(See L130 - L142 for additional mathematics courses)

M99

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 percent, 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” (2.00) or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.” Students required to take M99 must pass the course before taking L321, Chemistry I.

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: L142
M121 3-0-3
Linear Algebra
Theory and solution techniques for systems of linear equations; vectors, matrices, determinants; eigenvalues and eigenvectors; vector spaces; linear transformations. 
Prerequisite: Quantitative Reasoning II

M122 3-0-3
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: M113

M125 3-0-3
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: M122

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: M122

M141 3-0-3
Probability and Statistics
Fundamentals of probability, discrete and continuous random variables, probability distributions, hypothesis testing. 
Prerequisite: L142

M143 3-0-3
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: M141

M163 3-0-3
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: M121

M171 3-0-3
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: M122

M173 3-0-3
Complex Variables
Study of analytical functions; Cauchy-Riemann equations; power series; infinite series; calculus of residues; contour integration; conformal mapping. 
Prerequisite: M122

Health Sciences/Physician Assistant Studies

NOTE: All of the below listed “N” courses, with the exception N101, N505, N506, N508 and N509, are restricted to students matriculated in the Physician Assistant Studies Program

N101 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.

N505 1-1-2
Clinical Interactions I
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.

N506 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.
### Physical Education

**Physical Education**

**PE00**
**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.

**PE02**
**Intramural Sports**
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**

**PE03**
**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.

**PE04**
**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.

**PE08**
**Karate**
The course focuses on the conditioning and skill aspects of karate as an art form and as a method of self-defense.

**PE10**
**Golf**
An introduction to golf. Emphasis is on the selection and care of equipment, theoretical considerations relative to the game and instruction in fundamentals.

**PE11**
**Beginners’ Tennis**
This course includes discussions of the rules, etiquette and technique involved in playing tennis. Special emphasis is placed on groundstrokes and basics.

**PE12**
**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.
Volleyball
Rules, strategy and the skills involved in volleyball are discussed, analyzed, drilled and then practiced in game situations.

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.

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.

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.

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.

First Aid
A course designed to qualify the student in the principles of injury prevention and care for emergency situations.

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.

Body Sculpting
An opportunity for individuals to work within a group to tone and shape themselves with thought to individual preference.

Reading

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” (2.00) or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.” Students required to take R99 must not register for L17- in the same semester.

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 academic 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” (2.00) or better to receive credit for fundamentals courses. See “Fundamentals Courses” in the section “Academic Policies.” Students required to take ESL: R99 must not register for L17- in the same semester.

Science

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: M122, L325

Physics II
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.
Prerequisite: L325
Biology

(See L311 General Biology for non-Science majors. See L323 Biology I for Science majors.)

S212 3-3-4
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. The laboratory will focus on the diversity of life using microscopic observation, dissection, and culture and staining of microorganisms. Prerequisite: grade of “C” (2.0) or better in L323

S213 3-3-4
Cell Biology
The structure and physiological role of the various cell organelles are studied with emphasis on electron microscopy. Basic bacteriology and virology are also covered. A term paper reporting on a recent development on organelle physiology (as reported in the literature) is required. Prerequisite: C121, grade of “C” (2.00) or better in S212

S214 3-3-4
Molecular Genetics
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” (2.00) or better in S212

S215 3-4-4
Biochemistry I
This course is an in-depth study of thermodynamics, energetics, and the biomolecules which are basic to the chemical reactions of living systems. The structure and function of carbohydrates, lipids, nucleic acids, and proteins are explored, with particular emphasis on enzymes and their kinetics and regulation as primary participants in metabolic reactions. The lab introduces students to techniques in protein chemistry. Prerequisite: grade of “C” (2.0) or better in C122

S216 3-4-4
Biochemistry II
Biochemistry II focuses on metabolic pathways: the catabolic processes used to generate energy, and the anabolic processes of biosynthesis. Carbohydrate metabolism is investigated in detail as well as lipid and protein metabolism, with the emphasis on reactions and the enzymes involved in the reaction sequences. Nucleic acids are explored in terms of metabolic pathways and information transfer, both in lecture and in lab. Prerequisite: grade of “C” (2.0) or better in S215

S217 3-3-4
Plant Biology
writing intensive
Students will study the diversity of plants, their structure, and some important physiological processes, and current topics in plant biology. In the lab, students will examine everything from algae to flowers, from cells to organs to whole plants, and they will propagate plants by cloning and spore culture. Prerequisite: grade of “C” (2.0) or better in S212

S218 3-2-4
Human Anatomy and Physiology I
This course will examine the anatomical and physiological aspects of the various systems of humans, including integumentary, neurologic, sensory, musculoskeletal, reproductive, circulation, respiration, nutrition-digestion, excretion and endocrine. A close correlation between lecture and laboratory topics will be maintained. Suitable for Science and Health Science students. Prerequisite: grade of “C” (2.00) or better in S212, or S252

S219 3-2-4
Human Anatomy and Physiology II
A continuation of S218. Prerequisite: S218

S220 3-0-3 or 3-3-4
Special 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” (2.00) or better in S212 or permission of instructor

S221 3-3-4
Microbiology
A study of the biology of microorganisms with emphasis on bacteria and viruses. Topics include bacteriology, virology and immunology and medical microbiology. Classical microbiological techniques will be used in conjunction with modern methods of studying microorganisms in both normal and pathological situations. Prerequisite: grade of “C” (2.00) or better in S212

S222 3-2-4
Developmental Biology
Topics include descriptive embryology, regulation and differentiation via gene control and experimental embryology. This course will integrate classical developmental biology with recent discoveries and methodology including gene insertion, cloning and other advanced topics. Prerequisite: grade of “C” (2.00) or better in S212
S223 3-3-4
Plant Physiology
A survey of plant mechanisms of reproduction, growth and development. Topics will include photosynthesis, nutrition, water relations, hormonal control, seed development and germination and plant pathology. Laboratory sessions will introduce tissue culture, chromatographic and growth chamber methodology.
Prerequisite: S217

S224 3-3-4
Animal Physiology
A study of basic life functions of animals from the cellular, organ, system and organism levels of organisms. Laboratory investigations will stress both lower animal and human physiologic functions.
Prerequisite: grade of “C” (2.00) or better in S212

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” (2.00) or better in S212

S227 3-3-4
Principles of Genetics
This course is an elective for students who have completed two semesters of Science-major Biology. It 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.
Prerequisite: grade of “C” (2.00) or better in S212

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, autoimmunity, cancer and AIDS are studied.
Prerequisites: S221, grade of “C” (2.00) or better in S212

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” (2.00) or better in S212

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: C112, grade of “C” (2.00) or better in S212

S231 0-9-3
Independent 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

S232 0-9-3
Independent Research in Biology II
Continuation of S231.
Prerequisites: S231, permission of the dean

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: S217 or permission of instructor

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 (2.0) or better in S233 and co-reqisite S466

S235 3-0-3
Medical Botany
(writing 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” (2.00) or better in S212
**S236 3-3-4**  
**Histology**  
Histology presents students with an integrated perspective of how cellular and tissue structure is related to its function. The course enables students to identify normal cell histology and to understand how abnormal biochemical and physiological processes result in disease. Students will learn to use a variety of light-microscopy techniques, including selective-tissue stains; immunohistochemistry using monoclonal antibodies; and enzymic techniques such as those routinely used in hospitals for the diagnosis of abnormal pathology.  
*Prerequisites: grade of “C” (2.00) or better in S212 and junior status*

**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” (2.00) or better in S212*

**S239 3-3-4**  
**Invertebrate Zoology**  
This course will focus on the form, function and phylogenetic relationships of the major non-vertebrate animal phyla.  
*Prerequisite: grade of “C” (2.00) or better in S212*

**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.

**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” (2.00) or better in S212 and senior status*

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**Environment Science**

**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: L321, L323*

**S431 3-3-4**  
**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: C112*

**S443 3-3-4**  
**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 S431, 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: C122, S431*

**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 will participate in a mandatory two-day field trip highlighting estuarine/coastal biodiversity, aquacultural practices, and oceanographic-sampling techniques.  
*Prerequisites: C112, grade of “C” or better in S212, or permission from the instructor*

**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.

Prerequisites: grade of "C" (2.0) or better in S212 or permission of instructor.

**S461 2-2-3**

**Soils**

An introduction to soil and soil-forming processes on the surface of the earth. Focus on the complex mixture of inorganic minerals (sand, silt, clay), together with decaying organic matter, water, air and living organisms that form soils and soil horizons on the earth, with particular attention to how this information is applied to the practice of landscape architecture. What are soil horizons and how are they formed? What is soil erosion and how can it be reduced?

Prerequisites: L121, or grade of "C" (2.00) or better in S212.

**S462 2-3-4**

**Local Flora**

A survey of woody plants used in landscape architecture and ecological restoration. This course is an introduction to native, horticultural woody plants commonly used in this region. Plant growth characteristics, taxonomic features, ideal habitats and species interactions, costs, and standard best-management practices for landscaping, environmental and restoration professionals will be covered. Study of individual trees and shrubs will be accompanied by field visits to Fairmount Park and local arboretas.

Prerequisites: L311, or grade of "C" (2.00) or better in S212.

**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.

Prerequisites: grade of "C" (2.0) or better in S233 or S462.

**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: 2.0 G.P.A., grade of "C" (2.00) or better in S212 or permission of the instructor, and successful completion of the Study Abroad application and policy guidelines process.

**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" (2.00) or better in S233.

**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" (2.00) or better in either L141 or L142.

**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: L121, or grade of "C" (2.00) or better in S212, or permission of instructor.

**S469 3-3-4**

**Microbial Ecology**

Microbial ecology explores the interactions between microorganisms and the biotic and abiotic components of their environments. Topics will include the evolution of the microbial world, its resultant diversity, the relationships between microscopic and macroscopic life in terrestrial and aquatic ecosystems and environmental biotechnology. This course will enable students to develop an understanding of the normal integration between microbes and other life forms and how imbalances in these interactions can have drastic consequences for our environment.

Prerequisite: grade of "C" (2.0) or better in S212.

**S491 0-9-3**

**Independent Research 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.
Independent Research in Environmental Science II
Continuation of S491.
Prerequisites: S491, permission of the dean

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.

Textiles

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.

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.

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.

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: T122, or permission of instructor.

Apparel CAD/CAM
A comprehensive apparel CAD/CAM systems course to style garments, create or alter patterns, make production markers and engineer patterns for optimal material utilization. Students use the computer to solve problems and increase productivity. Prerequisite: T920

CAD for Fashion Design
This course focuses on the impact of CAD technology on the design process from concept development to design, fabrication and presentation. A major activity will be the development of storyboards using a state-of-the-art CAD system and its influence on the development and presentation of the designer’s work. Lectures, labs and activities will include utilization of a specific software system. Prerequisite: T122 or T720

Computer-Integrated Management
This course will bring into sharp focus the relationship that exists between all elements of our textile-apparel-retail chain. The student will be a member of an apparel company that must satisfy its customers (retailers) and establish relationships with textile suppliers while maintaining profitability, all dependent on the whim of fashion-oriented consumers. Problem solving of anomalies in the supply chain is integrated in this course. Prerequisites: B122, T904, T909

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: T101

Fiber Science
The physical and chemical structures and properties of fiber-forming polymeric materials are examined and related to end-use performance. Fundamental concepts, as well as experimental techniques, are emphasized. This course provides the students with firsthand experience in how scientific principles and mathematics can be applied to solve textile problems through experiments and problem sets. Prerequisites: L321, L325, T101
T203 2-3-3
Yarn Mechanics
The basic concepts of the mechanistic analysis of linear-textile assemblies are introduced. The tensile response of continuous filament, staple-blended singles and plied yarns; as well as cords, ropes and braids, are studied in the laboratory. The bending, torsional, frictional and viscoelastic properties of yarn structures are also examined.
Prerequisite: T202

T204 2-3-3
Fabric Mechanics
The mechanical response and deformation mechanism of planar textile structures under various modes of loading are examined through experimentation. The fundamental aspects of the mechanistic analysis of planar textile structures are introduced. Examples will be presented on how material properties and structural geometry are considered in the engineering design of textile structures for specific end uses.
Prerequisite: T203

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: L141, L321 or permission of instructor

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: T201 or T240

T208 1-4-3
Interior Fabric Performance
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 instrumentation in the evaluation of surface and color change is presented.
Prerequisite: T207 or T253

T240 3-0-3
Apparel Fabric Performance
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 T201.
Prerequisite: T101

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: T101

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 T301, T451, T551, and/or T620 may not take this course
Prerequisite: T101

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 T745 and/or C501 may not take this course for credit.
First offered Spring 2006
Prerequisite: T255

T290 4-0-4
Textile Engineering Technology Senior Project (Writing Intensive)
Design, development, manufacturing, research and other thought-provoking problems are presented. Students will work in teams to analyze information/data on numerous textile- or apparel-related problems. The final project will reflect the work previously conducted in the TET Option and will constitute the final submission to each student's digital portfolio.
Prerequisite: L61x, completion of 12 credits in TET Option

T291 2-2-3
Fashion Design Problem Solving
This course focuses on experimental design and is a continuation of the foundation design sequence for Fashion Design 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: T704, T715, T921
T295 1-5-3
Textile Design Research
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: T704, T712

T301 4-2-4
Yarn Engineering
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: T101

T310 2-2-3
Yarn II
The advanced study of yarns and their manufacture includes evenness, strength, twist of yarns and new developments in processing. Laboratory experiments will demonstrate the interrelationships between machines and products. Quality-control techniques will be discussed and applied as part of the laboratory experiments. 
Prerequisite: T301

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: T452

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: T451

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” (2.00) or better in T440

T442 1-5-3
Weave Design Studio III
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: T441

T450 4-2-4
Weave Engineering
A comprehensive course in the design and development of woven fabric structures for various uses including clothing, furnishings and industrial applications. Course will cover development of fabrics for specific cover, weight and performance; study of machines, mechanisms and devices used in the production of woven fabrics; and computer-aided design and manufacturing tools. Material learned in the classroom will be reinforced with laboratory work. This course is specifically designed for the Textile Engineering curriculum and is not suitable for other majors. 
Prerequisites: L141, L142, T301

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. 
Prerequisites: L130 or L131 or L141; T301

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: T451

T453 4-2-4
Weaving III
Students are provided an opportunity to pursue advanced studies in weaving technology through individual projects on power-weaving equipment. The latest developments in processing and equipment are discussed. This course replaced T410. 
Prerequisite: T452
The interaction between fashion and textile design will be explored through the design and construction of an original garment. Elements of color, pattern, texture and structure in the woven cloth are related to the drape and styling of a garment. Students will make a variety of woven samples, using special yarns and multi-harness looms.

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.

Students will learn through individual development how to create a range of texture and color effects within knit design. Independent needle selection and the use of the presser foot will be explored within design areas involving Jacquard, held-stitch and tuck-stitch structures. Design ideas will be developed through to swatch/sketch proposals suitable for sweater production.

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 presentations. Garment ideas will be developed through technical sketches and specifications into completed sweaters.

An elective course in which fashion design students may explore the development of knit design. Design ideas will be developed on hand equipment through to swatch/sketch proposals suitable for sweater design. Fashion 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 develop garments that may be used as part of their collection.

To obtain a thorough knowledge of the working principles of knitting, students learn to identify, analyze and design various weft- and warp-knitted fabrics. The emphasis is on weft-knit fabric analysis and design, as well as calculation of pattern areas using different mechanical- and electronic-design techniques. Production calculations of different fabric structures, speed factors, yarn counts and blends are studied. Fiber content and fabric-costing principles are covered. Principles of fabric engineering, dimensional constants, robbing back, cover factor and its relation to fabric mechanical properties are examined. The basic principles of warp knitting machinery and fabrics are discussed. The classes are complemented by lab work on weft- and warp-knitting machines. This course is specifically designed for the Textile Engineering curriculum and is not suitable for other majors.

The understanding of both weft- and warp-knits, through an investigation of knit construction, machinery, principles and knit fabric analysis. Lectures are complemented with a series of lab exercises on hand-flat equipment and fabric-analysis projects designed to fully acquaint the student with the principles of knit-fabric design and production. This course replaced T501.

A further investigation into the construction, design and production of both weft- and warp-knit fabrics. Lectures will be complemented with lab work involving the design, production and analysis of knit fabrics upon power-knitting equipment. This course replaced T502.

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. This course replaced T510.

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.

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.
T625 1-4-3  Nonwovens Fabrication and Design
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.

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: T101

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.

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: T701

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: T702

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: T704

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 T705 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” (2.00) or better in T705

T707 1-5-3  Print Design III
Advanced course to give students further necessary experience in developing and producing creative designs for special markets, end uses and fabrics. Market research is required before projects are begun.

Prerequisite: T706

T709 0-0-3  European Textile Printing
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: T706 or T740 or T745 or permission of the dean of the school

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.

T713 1-5-3  Drawing II/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: T712
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: T712*

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: T714*

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: T714*

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: T714*

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 designers. 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: T704, T918*

T729 2-2-3  
**Design Concepts**  
Students develop design research skills and gain confidence to utilize basic design skills as they relate to fashion design and are appropriate to retail merchandising. Vocabulary and concepts necessary for interaction with the fashion design community and the ability to make decisions about the qualities and kinds of fashion images encountered are emphasized. 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 standards of quality in fashion design. May not be taken by design majors.  
*Prerequisite: T901*

T740 1-5-3  
**Print Design Studio**  
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: T705*
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.

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: T450 or T451; T550 or T551

T767 3-0-3
Textile Quality Management
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 experientials, this course examines quality theory and practice — how a more sophisticated understanding of quality can lead to a strategic approach to quality management which 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: B123; and T452 or T552

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.

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.

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: T702 or T729

T790 1-0-1
Seminar: Textile/Apparel Industry Issues
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.

T791 0-0-(3 or 6)
Textiles 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 details.

T798, T799 0-0-3
Independent Study in Textiles I and II
For details, see description of Independent Study in “Academic Policies” section.

T811 3-0-3
Textile Production Control
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: T450 or T451, T550 or T551

T890 3-0-3
Special Topics in Textiles
A topic of special interest to students majoring in Textile Design, or Textile Engineering Technology. The special topic will vary.
Prerequisites will vary.

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: T101
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 Accumark 300 System. Inventory management, labor issues, ergonomics, and relevant public policies are also studied.
Prerequisites: T901, T917 or T918

T905 3-2-4
Apparel Quality Assurance
Quality assurance is developed from an integrated, systematic approach starting with components and following through receiving, cutting, sewing, finishing, storing and shipping acceptable finished sewn products. Practical procedures for a variety of products are considered through laboratory and plant experience.
Prerequisites: B151, T904

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: T904

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: L61X, T904, and completion of at least 21 credits in either the Apparel or Fashion core courses, or permission of the instructor

T910 3-2-3
Apparel/Textile Sourcing
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.
First offered Fall 2006
Prerequisite: T901

T913 3-0-3
Apparel/Textile Quality Assessment
Descriptive statistical measures and probability theory are combined to provide the basis for statistical decision-making techniques applied to the textile and apparel complex. Areas covered: data presentation, measures of variability, basic probability laws, Poisson “t” and normal distribution, confidence intervals and hypothesis testing.
First offered Spring 2006
Prerequisite: L130 or L131

T915 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.
First offered Fall 2006
Prerequisites: T256, T904, and T913

T916 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.
First offered Spring 2005 Any student who has received credit for T918 or T920 may not take this course.

T917 1-5-3
Garment Structures
This is the initial course in the fashion design technical studio sequence. From existing patterns, students produce two garments and have the opportunity to redesign them through imaginative use of construction details. Students also produce a sample book of various construction methods.
Note: A minimum grade of “C” (2.00) will be required in order to continue in the design studio sequence.

T918 1-5-3
Flat Pattern and Construction
This course covers the fundamentals of the flat-pattern method. Students will draft bodice, sleeve and torso 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 to the book, a garment is designed, patterned and sewn in fabric.
Prerequisite: a grade of “C” (2.00) or better in T918

T919 1-5-3
Draping Design and Construction
Students learn to drape basic bodice and skirt variations on standard industrial dressforms. Original garments are designed and constructed in woven fabrications using industrial machinery. Accurate pattern making is stressed, as is construction ability.
Prerequisite: a grade of “C” (2.00) or better in T920
T922 1-5-3
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: T921

T923 1-5-3
Advanced Patternmaking
This course is an elective for the student interested in learning industry standards and techniques while enhancing technical skills. Basic blocks will be developed from measurements to use in creating original designs using various textiles including two-way stretch fabrics.
Prerequisites: T715, T921

T924 1-5-3
Couture Techniques
This elective teaches couture-clothing production techniques. 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: T715, T921

T925 1-7-4
Collection Development I
A capstone course for senior fashion designers to develop and produce a portfolio of original designs. The collection is designed, merchandized and produced by the student in close contact with the instructor.
Prerequisites: T291, T715, T720, grade of “C” (2.00) or better in T921

T926 1-7-4
Collection Development II
Students will further develop the concepts from their original sources of inspiration from T925, 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” (2.00) or better in T925

T939 1-5-3
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

T940 0-0-3
Fashion Studies Abroad
A three-week 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 2.0 G.P.A. and have completed 30 credits in the Fashion Design or Fashion Merchandising program

T941 3-0-3
Integrated Manufacturing Technology
The course will analyze the various manufacturing technologies and their implications on management philosophy, employee relations and on profitability through lectures and literature 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: B162, T904

T961 2-0-3
Apparel Technology Senior Project
(open to all students)
This course will enable a student to perform self-directed research, with the consent of the instructor, in an area of interest. The student will evaluate the findings in the light of its impact on all facets of the industry and its customers.
Prerequisites: B122, B152, B162, B423, B642, T906, T909

T962 1-4-3
Design Technology Concentration Senior Project
Students use the Gerber CAD/CAM system to develop a garment that meets prescribed specifications and then make necessary adjustments according to changes in costing, fabric utilization, quality considerations and fabric performance. It is a capstone course for the design technology senior, as well as those students who wish to further develop their knowledge of the computer as an essential tool in the apparel-industry global marketplace.
Prerequisites: senior status, T125

T964 3-0-3
Senior Project: Business, Marketing or Master’s of Science Concentration
This course is a capstone course for Fashion Industry Management. The student, with the consent of the instructor, will perform self-directed research in an appropriate area of interest. This investigation will focus in a specific apparel company. The student will then analyze the research findings as they affect the operation of the individual company, its suppliers and its customers. Finally, the student will recommend changes that will improve the performance of the company and the other members of the supply chain.
Prerequisites: L611, and completion of at least 9 credits in the concentration
Honors Program

U361  0-0-0
Honors Community Service
Students interested in pursuing Honors Community Service work with the Honors director and/or campus Community Service director to: 1) identify a local service effort, and 2) prepare a proposal to earn honors credit. This is a non-credit option.

U371  0-0-(3-12)
Honors Study Abroad
This non-credit option allows a student to earn Honors credit while completing a semester in another country. Students interested in pursuing Honors 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.

U381, U382  0-0-3, 0-0-3
Honors Independent Study
Students interested in pursuing Honors Independent Study should meet with the faculty member with whom they want to study to prepare an outline of the topic, goals, and objectives for the semester’s work. Proposals should be turned in to the Honors director three weeks before pre-registration.
Prerequisites: junior/senior status and a minimum G.P.A. of 3.00

U391, U392  0-0-3, 0-0-3
Honors Research
Students interested in pursuing Honors Research should meet with the faculty member to plan a research project outlining the topic and inquiry. Proposals should be turned in to the Honors director three weeks before pre-registration.
Prerequisites: junior/senior status and a minimum G.P.A. of 3.00
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, day-division 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 day-division 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, day-division 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.

A student’s academic standing is determined at the end of each full-time semester, or after 15 credits if enrolled part-time, on the basis of attempted semester credits and cumulative grade point average according to the following table:

<table>
<thead>
<tr>
<th>Prior Academic Standing</th>
<th>New Cumulative GPA</th>
<th>New Academic Standing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good One Term</td>
<td>2.00 or higher</td>
<td>Good</td>
</tr>
<tr>
<td>Good (if full-time)</td>
<td>less than 2.00</td>
<td>Probation</td>
</tr>
<tr>
<td>Probation or 15 credits</td>
<td>2.00 or higher</td>
<td>Good</td>
</tr>
<tr>
<td>Probation (if part-time)</td>
<td>less than 2.00</td>
<td>Dismissal</td>
</tr>
<tr>
<td>Withdrawal/Probation</td>
<td></td>
<td>Re-entry/Probation</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.

<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>T771 or T772</td>
</tr>
<tr>
<td>Art-Studio/Drawing</td>
<td>4,5</td>
<td>T712</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>L311</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>L312</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>IS52</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>3</td>
<td>IS52</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>4,5</td>
<td>IS53</td>
</tr>
<tr>
<td>Economics-Macroeconomics</td>
<td>3,4,5</td>
<td>E821</td>
</tr>
<tr>
<td>Economics-Microeconomics</td>
<td>3,4,5</td>
<td>E822</td>
</tr>
<tr>
<td>English (Language)</td>
<td>4,5</td>
<td>L111</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>L121 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>
</tr>
<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>L135</td>
</tr>
<tr>
<td>Mathematics-Calculus AB</td>
<td>4,5</td>
<td>L141</td>
</tr>
<tr>
<td>Mathematics-Calculus BC</td>
<td>3</td>
<td>L141</td>
</tr>
<tr>
<td>Mathematics-Calculus BC</td>
<td>4,5</td>
<td>L141 and L142</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>L313</td>
</tr>
<tr>
<td>Physics B (Science major)</td>
<td>3,4,5</td>
<td>L313 or Free elective (3 cr.)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3,4,5</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>B151</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>
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:

- **Day**: 112
- **Evening (announced after 3:00 pm)**
  - **Main Campus**: 2230
  - **Bucks County Campus**: 2751

**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 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 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 signed by the student and presented to the 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.

Students who wish to take a course on a CR/NC basis must notify the Office of the Registrar on the proper form by the last day for schedule changes. At that time, the decision becomes final.

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 re-admitted 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 Registrar and the Office of Continuing and Professional Studies.

A student must submit a signed Drop/Add form to the 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 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 H99 (Fundamentals of College Writing), M99 (Fundamentals of College Mathematics) and R99 (Fundamentals of College Reading and Study Skills). English as a Second Language (ESL) sections of H99 and R99 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 (H99 and H99 ESL Fundamentals of College Writing, M99 Fundamentals of College Mathematics and/or R99 and R99 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.
Grade Point Average

The unit of credit is the semester hour.

Quality points are assigned to letter grades according to the following scale:

\[
\begin{array}{ccc}
A &=& 4.00 \\
A- &=& 3.67 \\
B+ &=& 3.33 \\
B &=& 3.00 \\
B- &=& 2.67 \\
C+ &=& 2.33 \\
C &=& 2.00 \\
C- &=& 1.67 \\
D+ &=& 1.33 \\
D &=& 1.00 \\
F &=& 0.00 \\
WF &=& 0.00
\end{array}
\]

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>L111 Writing Seminar I</td>
<td>3</td>
<td>B</td>
<td>3.00</td>
<td>9.00</td>
</tr>
<tr>
<td>L141 Calculus I</td>
<td>4</td>
<td>C+</td>
<td>2.33</td>
<td>9.32</td>
</tr>
<tr>
<td>T101 Survey of the</td>
<td>3</td>
<td>A-</td>
<td>3.67</td>
<td>11.01</td>
</tr>
<tr>
<td>Textile Industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN104 Introduction</td>
<td>3</td>
<td>F</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>to Computing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C321 Chemistry I</td>
<td>4</td>
<td>D</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>PE25 Stress Management</td>
<td>.5</td>
<td>CR</td>
<td>——</td>
<td>——</td>
</tr>
</tbody>
</table>

Grade Point Average (GPA) = \( \frac{\text{Quality Points Earned}}{\text{Credits Attempted}} \) = \( \frac{33.33}{17} \) = 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.

WF = Withdrawal/Failure
The grade of “WF” is generally given when a student does not complete a course, but has failed to drop the course officially within the allowed time. The grade is computed as a failure.

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.

Students who earn an “F”, “WF” 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 (e.g., L111, L911, a course expressly required in the major), or they wish to have the failing grade replaced on the transcript.

See “Auditing a Course,” “Grade Point Averages,” “Credit/No Credit Option,” “Fundamentals Courses,” “Internship Programs,” “Physical Education” and “Repeating Courses.”

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 may withdraw or take a leave of absence after the deadline for dropping a course. However, courses in which a student is enrolled at this time will remain on the transcript, will be awarded a “WF” grade, and will affect G.P.A. calculations.

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 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 Learning and Advising Center. Students who wish to discuss their decision should meet with their advisor or the director of the Learning and Advising Center. 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 Learning and Advising Center in Haggar Hall. When the effective date of the leave or withdrawal occurs while a semester is in progress, the Office of the 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 Learning and Advising Center by letter or telephone at 215.951.2730 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 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 day division 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 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, and 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," "WF" 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 (e.g., L111, L911, a course expressly required in the major), 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 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 Registrar or the Office of Continuing and Professional Studies. Alternatively, a request may be mailed to the 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. Students who have questions should consult the director of the Learning and Advising Center. Continuing Studies students should consult the director of Student Services. The Learning and Advising Center or the Office of Continuing and Professional Studies make specific application of transfer credits to degree requirements, in consultation with appropriate faculty members.

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 registrar. Withdrawal and leave-of-absence forms are available in the Learning and Advising Center. 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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M.Ed., Lehigh University

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M.A., Arcadia University

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M.S.S., Bryn Mawr College

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M.Ed., Antioch – New England Graduate School

Health Services
Karen Dahlquist
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International Student Programs
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M.Ed., Temple University
Residence Life
April Herring
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M.A., Slippery Rock University

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B.A., M.S., DePaul University

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M.Ed., Temple University

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M.P.H., Oregon State University

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M.B.A., Philadelphia University

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B.S., St. Joseph’s University
C.P.A., C.H.F.P.

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Associate Controller
Accounting Manager
B.S., La Salle University
M.B.A., Philadelphia University

Campus Store
Shirley Landis
Director
B.A., Temple University

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General Manager, Parkhurst Dining Services
B.S., Emerson College

Donald Bowman
Executive Chef
Susan Devine
Retail Manager
B.A., West Chester University
Gerald Hunter
Executive Sous Chef
Common Thread
Bridget Kelly
Assistant Retail Manager - Tuttleman

M. Grace Machaqueiro
Catering Manager
A.S., Antonelli Institute of Art and Photography

Kristie Martin
Assistant Production Manager
A.S., The Restaurant School

Michael Salomon
Executive Sous Chef
Ravenhill Dining Hall

Hanna Schein
Resident Dining Manager
Patricia Viola
Assistant Retail Manager

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M.A., Rider University

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B.A. Temple University

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Mailroom Supervisor

Safety and Security
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Director
B.S., Mansfield University

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B.A., Temple University
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M.B.A., Drexel University

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M.B.A., University of St. Thomas

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M.S., Boston University

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B.S., M.S., Philadelphia University

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A.M., Ph.D., University of Pennsylvania
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Associate Professor, Industrial Design  
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Certified Interior Designer, CID

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M.Phil., Ambedkar University  
Ph.D., University of Wisconsin

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Associate Professor Emeritus of Textiles

William Brokaw  
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Professor Emeritus of Accounting and Finance

William Wolfgang  
Professor Emeritus of Textiles

Francis J. Zeglen  
Professor Emeritus of Textiles
Academic Calendar

2005/2006

Fall Semester 2005
New day students report Thursday, Aug. 25
Opening academic convocation Thursday, Aug. 25
New day student activities continue Friday, Aug. 26 – Sun, Aug. 28
Classes begin, 8:00 AM Monday, Aug. 29
No classes Saturday, Sep. 3
Labor Day holiday; no classes Monday, Sep. 5
Last day for adding full-term courses, schedule changes, CR/NC, AU Tuesday, Sep. 6
Summer "I" grades change to failures Friday, Sept. 23
Yom Kippur: no classes Mon. Oct. 10 – Fri, Oct. 14
Mid-term evaluation week Friday, Nov. 4
Last day to drop full-term courses Wednesday, Nov. 23
Classes resume Monday, Nov. 28
Classes end Saturday, Dec. 10
Final examinations begin Thursday, Dec. 15
Final examinations end Wednesday, Dec. 21

Spring Semester 2006
Martin Luther King, Jr. holiday Monday, Jan. 16
New day student activities continue Tuesday, Jan. 17
Classes begin, 8:00 AM Wednesday, Jan. 18
Last day for adding full-term courses, schedule changes, CR/NC, AU Wednesday, Jan. 24
Fall "I" grades change to failures Tuesday, Feb. 13
Mid-term evaluation week Tuesday, Mar. 5 – Fri, Mar. 9
Classes resume Saturday, Mar. 4
Classes end Monday, Mar. 13
Reading / Design Review Days: no classes Tuesday, Apr. 4
First session ends Friday, Apr. 14 – Sat, Apr. 15
Good Friday holiday: no classes Tuesday, May 2
Final examinations begin Wednesday, May 3 – Fri, May 5
Final examinations end Saturday, May 6
Commencement Friday, May 12
Sunday, May 21

Summer Sessions, 2006
Classes begin: first session, 8:00 AM Monday, May 22
twelve-week session Monday, May 29
Memorial Day holiday: no classes Tuesday, June 13
Last day to drop first session courses Friday, June 16
Spring "I" grades change to failures Thursday, June 29
First session ends Tuesday, July 4
Independence Day Holiday Wednesday, July 5
Second session begins Tuesday, July 11
Last day to drop twelve-week session courses Tuesday, July 25
First summer session "I" grades change to failures Friday, July 21
Second session ends Monday, Aug. 14
Twelve-week session ends Monday, Aug. 14

2006/2007

Fall Semester 2006
New day students report Thursday, Aug. 24
Opening academic convocation Thursday, Aug. 24
New day student activities continue Friday, Aug. 25 – Sun, Aug. 27
Classes begin, 8:00 AM Monday, Aug. 28
No classes Saturday, Sep. 2
Labor Day holiday; no classes Monday, Sep. 4
Last day for adding full-term courses, schedule changes, CR/NC, AU Tuesday, Sep. 5
Summer "I" grades change to failures Friday, Sept. 22
Yom Kippur: no classes Monday, Oct. 2
Mid-term evaluation week Mon. Oct. 9 - Fri, Oct. 13
Last day to drop full-term courses Friday, Oct. 14
Thanksgiving recess, from 5:00 p.m. Saturday, Nov. 4
Classes resume Tuesday, Nov. 7
Classes end Friday, Nov. 10
Reading / Design Review Days: no classes Monday, Nov. 13
Final examinations begin Tuesday, Nov. 14
Final examinations end Friday, Nov. 17

Spring Semester 2007
Martin Luther King, Jr. holiday Monday, Jan. 15
New day student activities continue Tuesday, Jan. 16
Classes begin, 8:00 AM Wednesday, Jan. 17
Last day for adding full-term courses, schedule changes, CR/NC, AU Wednesday, Jan. 24
Fall "I" grades change to failures Tuesday, Feb. 13
Mid-term evaluation week Tuesday, Mar. 5 – Fri, Mar. 9
Classes resume Saturday, Mar. 4
Classes end Monday, Mar. 13
Reading / Design Review Days: no classes Tuesday, Apr. 4
First session ends Friday, Apr. 14 – Sat, Apr. 15
Good Friday holiday: no classes Tuesday, May 2
Final examinations begin Wednesday, May 3 – Fri, May 5
Final examinations end Saturday, May 6
Commencement Friday, May 12
Sunday, May 21

Summer Sessions, 2007
Classes begin: first session, 8:00 AM Monday, May 22
twelve-week session Friday, June 15
Memorial Day holiday: no classes Thursday, June 28
Last day to drop first session courses Monday, July 2
Spring "I" grades change to failures Wednesday, July 4
First session ends Thursday, July 12
Second session begins Tuesday, July 24
Independence Day Holiday Friday, July 27
Last day to drop twelve-week session courses Monday, Aug. 13
Second session ends Monday, Aug. 13
Twelve-week session ends
## Campus Phone Numbers

<table>
<thead>
<tr>
<th>Service/Department</th>
<th>Phone Number</th>
<th>Building</th>
<th>Map Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Achievement Program, Act 101</td>
<td>215-951-2735</td>
<td>Hayward Hall</td>
<td>18</td>
</tr>
<tr>
<td>Academic Affairs</td>
<td>215-951-2705</td>
<td>White House</td>
<td>41</td>
</tr>
<tr>
<td>Admissions-Undergraduate Day</td>
<td>215-951-2800</td>
<td>White Corners</td>
<td>40</td>
</tr>
<tr>
<td>Admissions-Undergraduate Evening</td>
<td>215-951-2900</td>
<td>Tuttleman Center</td>
<td>37</td>
</tr>
<tr>
<td>Admissions-Graduate</td>
<td>215-951-2943</td>
<td>White Corners</td>
<td>40</td>
</tr>
<tr>
<td>Alumni Relations</td>
<td>215-951-2929</td>
<td>White House</td>
<td>41</td>
</tr>
<tr>
<td>Architecture, School</td>
<td>215-951-2896</td>
<td>A&amp;D Building</td>
<td>4</td>
</tr>
<tr>
<td>Architecture (FAX)</td>
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<td></td>
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