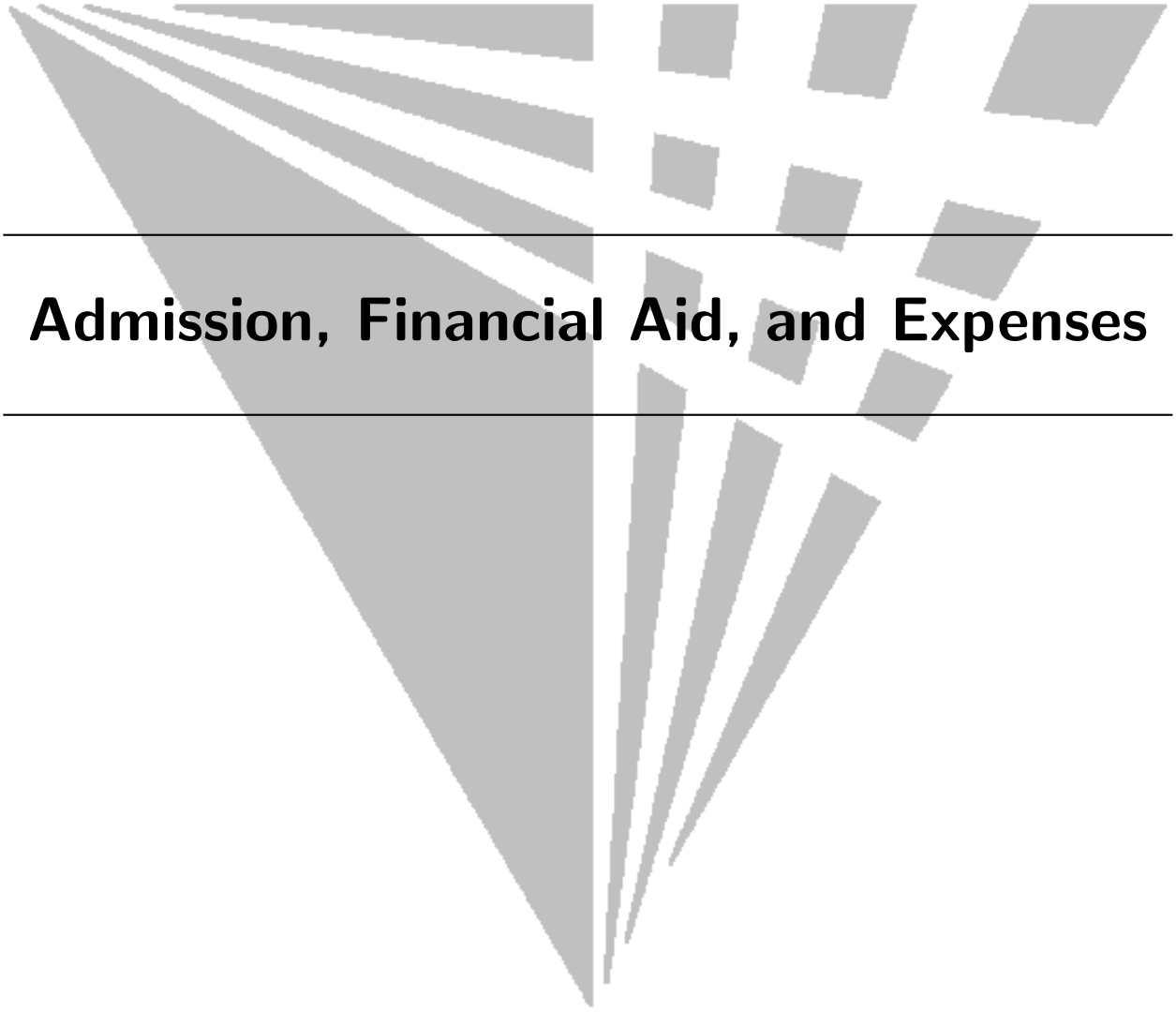
ILLINOIS INSTITUTE OF TECHNOLOGY

Bulletin:
Undergraduate Programs
2010 - 2012



Admission, Financial Aid, and Expenses

Undergraduate Admission

Classification of Students

The Office of Undergraduate Admission is responsible for admission decisions for all undergraduate students: full-time and part-time, non-degree and degree-seeking, ROTC, post baccalaureate, Joint Program, dual admission, Shimer College, and summer transfer students.

Students should contact:

Office of Undergraduate Admission
10 W. 33rd St.
Perlstein Hall 101
Chicago, IL 60616
Telephone: 312.567.3025
Outside Chicago: 800.448.2329
Fax: 312.567.6939
E-mail: admission@iit.edu
Online application: **apply.iit.edu**
Web: **admission.iit.edu**

Classification

A student registered for 12 semester hours or more is classified as a full-time student. A student registered for less than 12 semester hours is classified as a part-time student.

Acceptance of Admission

To accept IIT's offer of admission, all students must return the **Enrollment Form** which is sent to every admitted student. Full-time students must submit a nonrefundable $300 matriculation deposit. This deposit is credited to the student's account and will go toward the cost of attendance.

Campus Locations

Students can take courses at either the Main Campus or the Daniel F. and Ada L. Rice Campus in Wheaton, a Chicago suburb. The Main Campus has the most extensive offering of day and evening classes. The Rice Campus offers evening classes, most of which start at 6:25 p.m. The majority of undergraduate courses taught at the Rice Campus are 300- and 400-level courses both in information technology and management and in industrial technology and management.

IIT Online, which is IIT's distance education unit, delivers courses via the Internet and also links classroom studios on campus with remote TV receiving sites. IIT Online's talk-back feature permits students in receiving classrooms to participate in class discussion. No full degree program may be completed entirely online. Undergraduate students must have approval to complete courses online. For additional information, visit **www.iit-online.iit.edu**.

Application as a First-Year Student

Special programs and scholarships have specific deadlines and supplemental applications. See **admission.iit.edu** for details. Students have until May 1 (National Candidates' Reply Date) to accept IIT's offer of admission. Students admitted after May 1 will have two weeks from the receipt of their admission and/or financial aid award letters to respond to IIT's offer. To accept IIT's offer of admission, a student must return the Enrollment Form, which is sent to every admitted student, and a nonrefundable matriculation deposit by the above dates.

Applicants must submit a completed application, transcripts from all high schools attended, transcripts of all colleges (where applicable), standardized test scores (ACT or SAT I), and a letter of recommendation. International students should see additional requirements in the International Student section on page 11. The application is available online at **apply.iit.edu**.

Standardized Test Scores for First-Year Students

All students are required to submit scores from either the College Entrance Examination Board's Scholastic Aptitude Test (SAT I Reasoning) or the American College Test (ACT). The tests may be taken at any time, but preferably early in the high school senior year. Applicants for the spring semester (all majors except architecture) must have taken the SAT I or ACT by the preceding November. IIT will consider SAT II tests in math and science but does not require them for admission or scholarship applications.

High School Requirements for First-Year Students

Graduates from an accredited high school applying for admission must present evidence that they have completed a minimum of 16 units of high school work. Most admitted students exceed this minimum. A unit may be defined broadly as the study of a major subject for one academic year in high school.

Required:

- 4 years of English
- 4 years of mathematics, including precalculus
- 3 years of science, including 2 years of lab

Recommended:

- 2 years of social sciences
- Computer and technology courses
- 2 years of foreign language

Application as an International Student

International students are those who are neither citizens nor permanent residents of the United States. Though the required admission documents can vary depending upon individual circumstances, all international applicants must submit a completed application for admission, official transcripts in the native language, certified English translation of all transcripts, TOEFL or IELTS scores, and an affidavit of financial support. Please read appropriate application requirements for first year or transfer students.

Prospective applicants should carefully read the description of requirements on the IIT website: **apply.iit.edu**.

Application as a Transfer, Visiting, or Exchange Student

The Office of Undergraduate Admission is responsible for admission decisions for transfer, visiting, and exchange students. Transfer, visiting, and exchange students may apply for the fall or spring term in all majors except architecture, which is a fall-entry program only. See **admission.iit.edu** for deadlines.

The transfer application may be obtained by contacting the Office of Undergraduate Admission or visiting **apply.iit.edu**. Students must submit the IIT Transfer Application, transcripts for all colleges and universities attended, a personal statement, and a letter of recommendation to the Office of Undergraduate Admission.

International students should see additional requirements in the International Student Section.

Requirements for Transfer Students

Transfer applicants must be in good academic standing at their previous college(s) to be considered for admission to IIT. Admission is based upon a cumulative GPA and individual grades in all classes that apply to the major selected. A minimum cumulative GPA of 3.0 is recommended for transfer consideration. Students on academic probation, or who have been dismissed for academic or other reasons, will not be considered for transfer. Students must also be in good financial standing at all previous colleges attended.

Transfer applicants with fewer than 30 hours of transferable graded college coursework must submit high school transcripts and SAT I or ACT scores as part of their application.

Application as a Non-Degree-Seeking Student

Applicants who are taking courses for the following reasons will generally be limited to non-degree, part-time enrollment.

- taking courses for professional development
- taking courses prior to being admitted to a graduate program
- taking courses to transfer to another institution

A non-degree-seeking student must be admitted to IIT. Admission is based on prerequisite coursework or other preparation necessary for the intended course. Non-degree seeking students follow the same application procedures as transfer students.

Application for Summer School Admission

Students who attend another college or university and wish to enroll for summer courses at IIT with the intention of transferring the credits to their home institution must submit the following to the IIT Office of Undergraduate Admission:

- a Summer School Application
- a transcript and/or a letter of good standing that indicates completion of the prerequisites for the requested course(s) at IIT

Additionally, students should check with their home institutions to determine the equivalencies for specific courses and the policies and procedures required to transfer IIT courses.

Transfer of College-Level Credit

Transfer Credit

Official credit evaluations are completed only after a student is admitted to IIT. Courses may be acceptable for transfer from accredited colleges and universities, provided they are comparable in nature, content and level to those offered at IIT. Credit may also be accepted, based on appropriate documentation, for Dantes, military experience, and CLEP (see page 256). IIT does not grant credit for vocational courses or life/work experience. In addition, technology courses will not be accepted in any engineering program. IIT will accept college coursework taken while still in high school from other accredited universities and colleges.

All college transcripts are to be submitted as part of the application for admission to the Office of Undergraduate Admission, regardless of the transferability of credits.

A maximum of 68 applicable semester hours of transfer credit is permitted from a two-year college. There is no maximum number of hours of transfer credit from a four-year college; however, the final 45 semester hours of any degree program must be completed at IIT. Transfer credit will be accepted for courses completed with the equivalent of a grade C or better. A grade of C– is not acceptable for transfer credit. Grades from transfer courses are not included in the IIT cumulative or major GPA. In certain instances, the academic department must approve transfer credit if a long period of time has elapsed since the course was completed.

Contact the Office of Undergraduate Academic Affairs (ugaa@iit.edu) regarding the transfer of courses from any college or university.

Advanced Placement Examinations

IIT will award credit for CEEB Advanced Placement Examinations. Credit will vary by test score. A complete list of acceptable AP scores and IIT course equivalents may be found at **www.iit.edu/ugaa**.

International Baccalaureate Program

Students holding an International Baccalaureate (I.B.) diploma or who have successfully completed I.B. examinations may be awarded credit according to the following policies. College credit will be awarded for higher-level (HL) exams with a score of 4 or better. A maximum of 10 hours of credit can be awarded for each HL exam. No credit is granted for work completed at the subsidiary level (SL). Scores should be sent to the Office of Undergraduate Admission.

General Certificate of Education Examination - Advanced Level

College credit will be awarded for GCE A-level examinations with a grade of A, B, C, D, and E. A maximum of 10 hours of credit can be awarded for each A-level examination. No credit will be granted for advanced subsidiary level examinations.

Placement Testing

Placement testing is done prior to first enrollment. For students entering in the fall semester, placement tests are scheduled in the summer preceding matriculation. For students entering in the spring semester, placement tests are scheduled immediately preceding matriculation. Placement tests are only used for placing students into the appropriate courses. Test results do not appear on the student's official academic record and no academic credit is awarded.

Students are required to take up to three placement exams.

- All new first year and transfer students who have neither Advanced Placement credit nor transfer credit for MATH 151 - Calculus I are required to take the mathematics placement test.
- All new first year and transfer students who have neither Advanced Placement credit nor transfer credit for COM 101 - Writing in the University or COM 111 - Writing in the University for Non-Native students are required to demonstrate writing proficiency in one of two ways. They may either pass the writing placement exam prior to enrollment or receive a grade of C or better in COM 101 or COM 111 during their first year of attendance.
- Students in chemical engineering who have neither Advanced Placement credit nor transfer credit for CHEM 124 - General Chemistry are required to take the chemistry placement test.

Immunizations and Proof of Immunity

Illinois Institute of Technology is required to collect student immunization records and provide this information to the Illinois Department of Public Health, or its designated representative, in the event of a health emergency or compliance audit. All immunization documents submitted to IIT become the property of the University. Unless required to do so by law, IIT will not release student immunization records to any third party. Limited exemptions from showing proof of immunity can be accepted with official supporting documentation. In accordance with public health law, anyone with an exemption may be excluded from campus in the event of a health emergency. Additional proof of immunity for specific health conditions is required of international students who are not otherwise exempt. Students who do not comply with these requirements prior to, or during their first term of study, will be prevented from registering for subsequent terms. Questions regarding the immunization policy should be directed to the Student Health Center at 312.808.7100 or **www.iit.edu/student_health**

Financial Aid

Comprehensive Financial Aid Program

IIT administers a comprehensive financial aid program, which includes federal, state and institutional funds for full and part-time undergraduate students. Federal programs include grants, loans and work-study employment. State programs include grant and scholarship funds. Most federal and state funds are based on demonstrated financial need, with the exception of merit scholarships. Institutional funds include need-based grants and loans, as well as merit scholarships based on academic, athletic and service achievements. IIT uses the formula established by the U.S. Congress to determine financial need for assistance. IIT offers limited academic scholarship assistance to international students.

Student Eligibility Requirements to Receive Federal and State Financial Assistance

Students must be U.S. citizens or eligible non-citizens and be enrolled in a degree-seeking program for at least half-time (six credit hours or more per semester) and demonstrate reasonable academic progress toward graduation. International students are not eligible for federal financial aid.

Federal Financial Aid Application Process

All students applying for financial assistance need to complete the Free Application for Federal Student Aid (FAFSA). This application is available beginning January 1 of the academic year in which the student plans to attend. The IIT Title IV School Code is **001691**. The priority date for financial aid consideration at IIT is April 15. All financial assistance is awarded on an annual basis. Students should be aware that a FAFSA must be filed each academic year. The amount of financial aid that a student receives each year depends on demonstrated financial need and the availability of funds. Students applying for financial aid will be required to submit tax information upon request.

Determining Financial Need For Assistance

Financial need is the difference between a student's total annual cost of attending IIT and the amount the student and the student's family is expected to contribute toward that cost of education. The total cost of attendance at IIT includes tuition and mandatory fees, room and board, books and supplies, transportation, and personal expenses. The amount that the student and family is expected to contribute is called the expected family contribution (EFC). The U.S. Congress has established the formula used to calculate the EFC. The EFC is subtracted from the cost of attendance, and what is left over is considered to be the demonstrated need for financial assistance. One of the principles of need-based assistance is that students and their families are expected to help pay some of the cost of education.

First-Year Students

The Free Application for Federal Student Aid (FAFSA) for first-year students entering IIT is available online at **www.fafsa.ed.gov**.

The priority date for financial aid consideration is April 15; therefore, new students should not wait for a final admission decision before filing the FAFSA.

Transfer Students

All new transfer students will file either a renewal or an original FAFSA. The priority date for financial aid consideration is April 15; therefore, new transfer students should not wait for a final admission decision before filing the FAFSA.

Continuing Students

All continuing students must submit either a renewal or original FAFSA to the U.S. Department of Education by April 15, which is the priority date for financial aid consideration. FAFSAs are available online at **www.fafsa.ed.gov**.

Federal Financial Aid Programs

Federal Pell Grant

A Federal Pell Grant is a federal grant that does not have to be repaid. Pell Grants are awarded only to undergraduate students who have not earned a bachelor's or professional degree. Pell Grants are awarded based on demonstrated financial need. Students apply for a Pell Grant by filing the FAFSA. All students who file the FAFSA receive a Student Aid Report (SAR). If a student does not qualify for a Pell Grant, he or she may still be eligible for other forms of financial aid. Students can designate IIT as a SAR recipient by using the code **001691** in Section 5 of the FAFSA.

Federal Supplemental Educational Opportunity Grant (FSEOG)

An FSEOG is a federal grant that does not have to be repaid. This grant is for undergraduate students who demonstrate exceptional financial need. Students apply for the FSEOG by filing the FAFSA. IIT strongly encourages all students who wish to be considered for SEOG to submit the FAFSA to the Department of Education by the April 15th deadline.

Federal Perkins Loan

A Federal Perkins Loan is a low-interest (5 percent) federal loan for undergraduate students with exceptional financial need. IIT is the lender and the loan is made with government funds. There is no interest charged while the student is attending school. When a student leaves school or drops below half-time attendance, there is a nine-month interest-free grace period before the student begins repayment. All repayments are made to IIT. Students apply for a Perkins Loan by filing the FAFSA. Students who wish to be considered for the Federal Perkins program are strongly encouraged to submit the FAFSA to the Department of Education by the April 15th deadline. These awards are limited and awarded on a first-come, first-served basis.

Federal Work Study Program (FWS)

The FWS provides salaries for jobs for undergraduate and graduate students with demonstrated financial need. Students awarded FWS funds can earn money to help pay education expenses. Students can work either on- or off-campus. Off-campus jobs will be with private, non-profit organizations or public agencies that provide community service work. Students awarded FWS are paid at least the current federal minimum wage or higher, depending on the type of work performed. Students are paid by the hour and receive a paycheck. FWS students should not work more than 20 hours per week during the academic year and may not work during their scheduled class times. Students apply for FWS by filing the FAFSA. Jobs are advertised by the Career Management Center, **www.cmc.iit.edu**. Additionally, this office assists students in finding summer employment and permanent jobs after graduation.

Direct Loan Program

The Direct loan program includes the Stafford subsidized and unsubsidized loan programs for undergraduate and graduate students, as well as the Parent Loan for Undergraduate Students (PLUS) Program. The Stafford Loan Program provides low-interest loans to assist students with paying educational costs. Interest rates are determined each year on July 1st. Students with a previous loan will continue to have a variable interest rate. The interest rate will change annually on July 1, with a maximum of 7.9%. These loans must be repaid over a period of time after a student leaves school or drops below half-time enrollment. The funds for these loans come from the federal government.

Federal Direct Stafford Loans (Subsidized and Unsubsidized)

The Subsidized Stafford Loan is awarded based on demonstrated financial need and students do not pay interest on the principal while they are in school. The Unsubsidized Stafford Loan is ***not*** awarded based on demonstrated financial need; however, interest ***is*** charged from the time that the loan funds are disbursed to the student. Students have the option of paying the interest or having the interest added onto the principal. Fees of up to 3% are charged on each loan and these fees are deducted before a student receives the loan funds.

Federal Direct PLUS Loans

PLUS loans enable parents with a good credit history to borrow money to help pay educational expenses for their dependent undergraduate student. The interest rate is set on July 1 and is fixed. Students apply for all Direct loans by filing the FAFSA.

Illinois Student Assistance Commission (ISAC) Financial Aid Programs

Monetary Award Program (MAP)

This program is for undergraduate Illinois residents and provides state grants that do not have to be repaid. To receive a MAP grant, a student must demonstrate financial need, be a resident of Illinois, and be enrolled at an Illinois institution. The MAP grant can only be applied toward tuition and mandatory fees. A student can receive the MAP grant for up to a maximum of 135 credit hours. Students apply for the MAP grant by filing the FAFSA. To receive the maximum grant amount, students must be enrolled in 15 credit hours.

Silas Purnell Illinois Incentive for Access Grant (IIA)

The IIA Program provides a one-time state grant of up to $500 for first-year students who have an expected family contribution (EFC) of zero, which is determined by filing the FAFSA. A student must be enrolled at least half-time in an Illinois institution, be an Illinois resident, and have not yet received a bachelor's degree.

IIT Financial Aid Programs

Most IIT students receive some form of financial assistance. All students who submit a FAFSA are considered for all federal, state and institutional financial aid for which they qualify. IIT grants and most loans are awarded on the basis of demonstrated financial need. In addition, each year a number of talented students receive IIT scholarships that are based on merit. All IIT scholarships may be adjusted upon a student receiving federal and/or state grant funding.

The Office of Admission initially awards IIT scholarships and the Office of Financial Aid administers renewals of the awards. Generally these scholarships are renewable for four years and only apply to undergraduate students who maintain full-time status in undergraduate degree programs. Full-time status is defined as enrollment in 12 or more credit hours of course work at IIT each semester. All IIT scholarships require satisfactory academic progress as defined in the ***IIT Undergraduate Bulletin***. However, some IIT scholarships have additional academic requirements.

The academic records of students who do not meet the requirements of their IIT scholarships are reviewed after posting of spring term grades.

Transfer-Student Scholarships

Merit scholarships are awarded to transfer students who have strong college records. Awards are renewable based on grade point average at IIT and reasonable academic progress. All admitted students are reviewed for eligibility.

Athletic Scholarship

As a National Association of Intercollegiate Athletics (NAIA) member, IIT awards athletic scholarships based solely on athletic ability, regardless of need. In compliance with NAIA rules, athletic scholarships are officially made by financial aid officers, upon recommendation of the athletic director. Students with demonstrated financial need will be reviewed for federal, state and other IIT financial aid for which they are eligible. This scholarship may be adjusted upon a student receiving federal and state funding.

IIT Employment Programs

Part-time employment opportunities may be available for students, on- and off-campus. Co-ops, internships and some on-campus jobs are posted in the Career Management Center (CMC) e-Recruiting database. Other on-campus jobs may be announced directly by individual university departments. Students interested in and eligible for employment off-campus in their field of study can get job search assistance from the CMC and must attend an Introduction to Cooperative Education and Internship workshop conducted by the CMC. Workshop schedules are posted at **www.cmc.iit.edu**. Appointments for individual career counseling may be made by calling 312.567.6800. International students (on F1 visa) are restricted to on campus employment for their first academic year of study at any school in the United States. After completing one academic year in the country, students on F1 visa may be eligible for opportunities off-campus (only if related to their field of study) through the Cooperative Education or Summer Internship Programs.

ROTC Programs

IIT offers scholarship supplements to admitted students who have been awarded U.S. Air Force, Army or Naval ROTC scholarships. The scholarship supplements are described at **www.iit.edu/financial_aid/assistance/pdfs/rotc_scholarships.pdf**.

Veterans' Educational Benefits

Students eligible for the Montgomery GI Bill and the Yellow Ribbon Program are eligible for Veterans' Benefits at IIT. Students need to be accepted by IIT and approved by the Department of Veterans Affairs before receiving benefits. Paperwork needs to be completed in the Registrar's Office at IIT's Main Campus to begin the process for obtaining VA tuition benefits. Office visits are by appointment only. For further information or to make an appointment, please contact:

Office of the Registrar, IIT Main Campus
3300 South Federal
Main Building, Room 104
Chicago, IL 60616
registrar@iit.edu
312.567.3100

Continued Eligibility for Financial Assistance

All students receiving federal and/or state financial aid funds must demonstrate satisfactory academic progress toward graduation from IIT. Satisfactory academic progress includes a satisfactory cumulative grade point average and sufficient credit hours earned each semester toward the completion of a degree program. IIT has established a Satisfactory Academic Progress Policy in compliance with federal and state regulations. Failure to comply with IIT's Satisfactory Academic Progress Policy will lead to the student's losing eligibility for financial assistance.

Additional Information

All financial aid awards and scholarships for freshmen, transfer, continuing undergraduate, and all graduate students (excluding law, graduate business and MPA students) are processed by the IIT Main Campus Office of Financial Aid. Students should submit all information regarding financial assistance to: Office of Financial Aid, 3300 S. Federal St., Chicago, IL 60616 (telephone 312.567.7219). The office is open from 8:30 a.m. to 5 p.m., Monday through Friday.

Educational Expenses

All University mandatory and non-mandatory charges are published regularly in official University publications including electronic mail and web site postings. For a complete listing of current tuition, fees, and other charges go to **www.iit.edu/bursar**, then select Tuition and Fees. The University regrets that continually rising costs do not permit it to guarantee that published charges will not change. Students and parents should anticipate periodic increases in the future.

Undergraduate Tuition

Undergraduates registered for 12 credit hours or more are considered full-time and will be charged at the full-time tuition rate. Part-time undergraduates registered for fewer than 12 credit hours will be charged at the per credit hour part-time tuition rate.

Enrollment Deposit

Each student admitted as a full-time degree-seeking undergraduate student is required to make a non-refundable enrollment deposit which is credited toward the student's cost of attendance and holds a place in class for the initial semester of enrollment.

New Student Fee

First time undergraduate students are charged a one time fee to cover the costs of orientation activities for their first term of enrollment.

Other Fees and Charges

A student may incur other fees and charges that are both mandatory and non-mandatory. For a complete current listing of all charges and fees go to **www.iit.edu/bursar**, then select Tuition and Fees.

Books and Supplies

Books and supplies are available at the University bookstores. Costs for books and supplies can differ significantly depending upon the field of study. Most undergraduate students can expect to spend at least $1,000 per year for books and supplies (exclusive of drafting equipment, computers, and similar one time purchases). Students in the College of Architecture may spend less on books but substantially more on supplies.

Payment of Tuition, Room and Board, and Other Fees and Charges

Payment of all term charges to the University are due on the first day of classes each term. The University offers a number of payment plan options allowing students to pay out-of-pocket tuition cost in installments. The latest tuition and fee information as well as payment plan information can be found on the bursar web site at **www.iit.edu/bursar**. Tuition and fees are payable by check or money order submitted either by mail or in person to the cashier office, 3300 S Federal, Main Building Room 104, Chicago, IL 60616. For your convenience the University has partnered with TouchNet, a third party service provider, to offer online credit card payments. TouchNET accepts American Express, Mastercard, and Discover cards only. TouchNet charges a 2.75% convenience fee on all credit card transactions. Please visit the bursar website for more information regarding credit card payments.

University Refund Policy

Under exceptional circumstances, such as withdrawal for involuntary military service, serious illness or injury, consideration may be given by the university for a refund or credit for unused tuition upon written request to the Office of Undergraduate Academic Affairs. Payments for other charges incurred may be the responsibility of the student at the determination of the university. Refer to the academic calendar at **www.iit.edu/registrar** for the last date to drop with a refund.

Outstanding Debts

A hold restricting registration and other services is placed on a student's record when that student is delinquent in fulfilling his or her financial obligation to the university. A student will be considered delinquent when his or her account is not current according to established university policies and payment due dates. Students with outstanding University debts may be suspended from current term classes. Students whose accounts are not current will not be allowed to register or attend classes for any subsequent term. Official transcripts and diplomas will not be issued until all financial obligations have been met.

Living Expenses

Unmarried Students

The university's residence halls provide facilities for room and board for undergraduate and graduate men and women. First-year students not living with their families must live in the residence halls. Housing for first-year students is guaranteed through June 1. Residence hall contracts are made for the full academic year, from the first week of classes **in August** until commencement in May. Charges for room and board for 2010 range from $9,233 to $22,042 for the academic year. When a student submits a contract for campus housing, an itemized list of available campus accommodations and rates will be provided. For more information, see the Housing and Residential Services Website: **www.iit.edu/housing**.

Meals

Students living in residence halls contract for a variety of meal plans. Meal plans and meals on a cash basis are available to non-residents. For more information, see the Housing and Residential Services Website: **www.iit.edu/housing**.

Housing Prepayment Fee

An initial $600 nonrefundable payment, which applies in full to charges for room and board, must be submitted to Housing and Residential Services by June 1 for fall semester applicants or by December 1 for spring semester applicants. Housing prepayment is only required of returning students.

Commuting Students

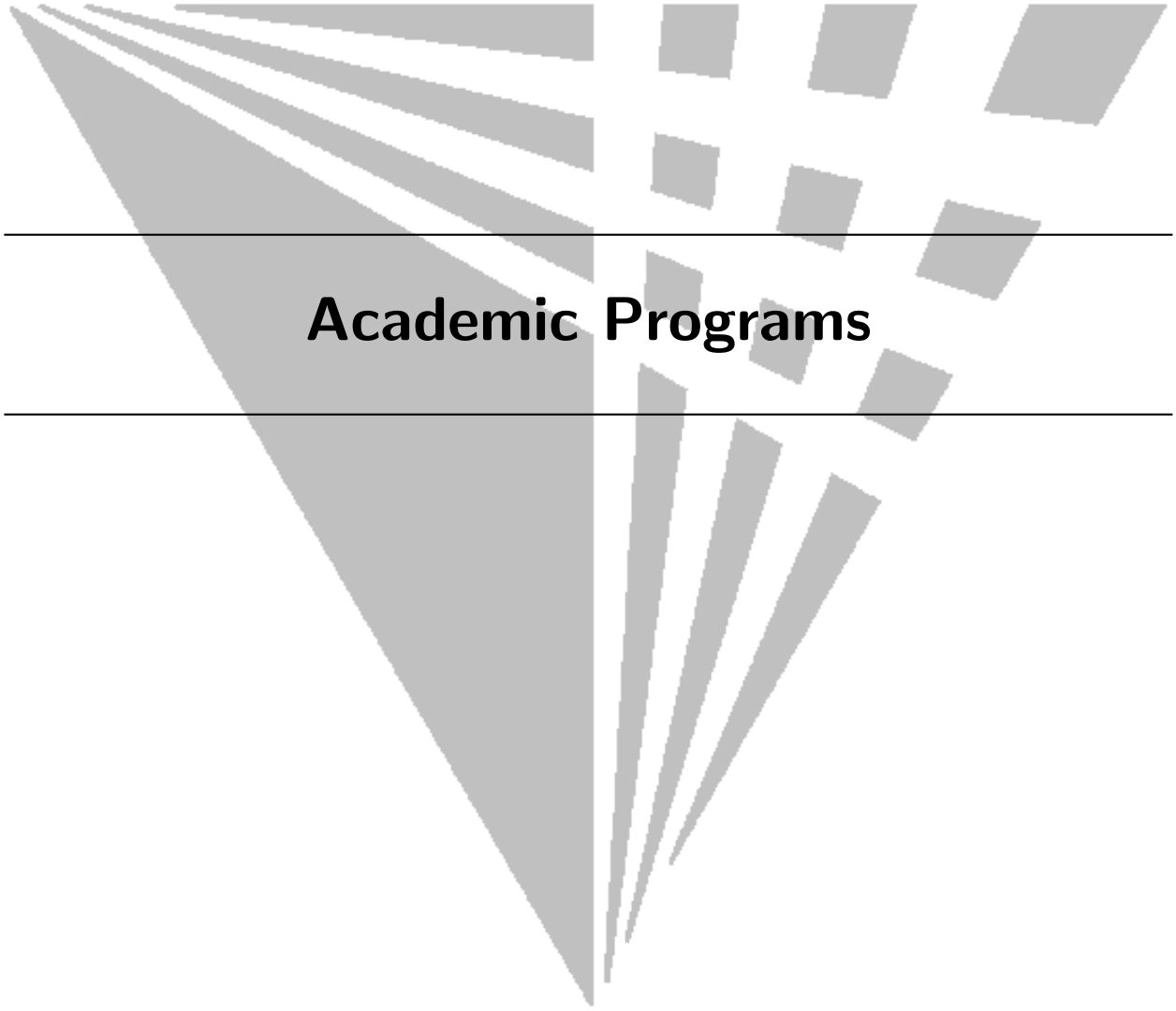
A student living at home and commuting will spend an estimated annual average of $2,000 on living costs at home and for meals on campus, and approximately $1,800 for travel.

Miscellaneous Expenses

Miscellaneous personal and recreational expenses are estimated at $2,100 for the academic year. These figures are used in computing the official financial aid budget.

Married Students

There are living units in three high-rise apartment buildings on campus. These units range from studio to three-bedroom apartments and are not air-conditioned. Leases are available to married students and single full-time graduate students if space is available. Rentals for unfurnished apartments, including all utilities except telephone and cable T.V. range from approximately $855 to $1,594 per month. Applications for campus housing should be submitted to Housing and Residential Services well in advance. A $50 non-refundable application fee is required when applying for an apartment.



Academic Programs

Information Technology and Management– School of Applied Technology

Department Web site: www.iit.edu/cpd/itm

The objective of the Bachelor of Information Technology and Management degree is to produce graduates prepared for a career in the information technology field, while equipping them with the critical thinking skills necessary to cope with the emergence of new technologies and with management principles needed to advance in their careers. While the program was originally designed for students who have achieved an Associate's Degree and would like to complete a Bachelor's Degree, students may also enter the program as first-year students.

Government studies such as Free and Aspray, *The Supply of Information Technology Workers in the United States*, show that technology positions will be the fastest growing segment in the United States for the next thirty years. Organizations of all kinds have become dependent on networked computing infrastructure as the key element to enabling modern business processes, and our graduates are prepared to select, manage, and maintain that infrastructure, ensuring that it meets organizational needs. Information technology professionals assume responsibility for selecting hardware and software products appropriate for an organization, integrating those products with organizational needs and infrastructure, and installing, customizing, and maintaining those applications for the organization's computer users. Planning and managing an organization's technology infrastructure is a difficult and complex job that requires a solid foundation in applied computing as well as management and people skills. Professionals in this discipline require special skills, such as understanding how networked systems are composed and structured and what their strengths and weaknesses are, and being prepared to deal with important software systems concerns such as reliability, security, usability, and effectiveness and efficiency for their intended purpose. These topics are difficult and intellectually demanding.

The Bachelor of Information Technology and Management program produces graduates who can make information technology work in a wide range of settings, create digital content for that infrastructure and provide support to the individuals who use it. The goal of the program is to provide students with up-to-date knowledge of the technologies in use in today's workplace and at the same time equip them to manage those technologies. Courses are taught by professionals who work in the field and are in tune with the latest currents in information technologies.

Entering the program as a first-year student requires the completion of additional courses in technical communication, psychology, engineering graphics, and a minor. The minor may be in a field which will compliment information technology such as business or professional and technical communication, or may be chosen from a field very different such as history or sociology to provide a more widely rounded educational experience.

Admission for transfer students is based on a review of college transcripts and documentation of work experience. Applicants must submit an application for admission as a degree seeking student. Transfer applicants must hold an associate's degree (A.A.) from an accredited college or the equivalent (completion of 60 credit hours). Only courses in which the student has earned a grade of C or better may be accepted for transfer. Supporting documentation to be included with the application includes official transcripts of all college level work.

Faculty and Staff

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Professor
Carlson

Industry Professors
Davids, Lidinsky, Trygstad

Industry Associate Professors
Kimont, Scarlata

Adjunct Assistant Professor
Gehrs

Adjunct Industry Professors
A. Friedman, Goins, P. Gupta, Hendry, D. Hood, Joiner, Slater, Vaccaro

Adjunct Industry Associate Professors
Bartek, Hajek, Kandemir, M. Kozi, J. Meyers, Shamsuddin

Transfer Admission Requirements

Admitted transfer students are expected to have satisfied the following General Education Requirements prior to admission. If not, the student must complete them while working on the ITM degree. The degree requires 126 semester hours including transfer and coursework completed at IIT.

Basic Writing Proficiency Requirement

Students must take the IIT English Proficiency Examination before beginning classes at IIT. Within their first year at IIT, students who do not pass the IIT English Proficiency Examination must demonstrate basic writing proficiency by passing a composition course at IIT.

Natural Science or Engineering

Eleven semester hours of natural science or engineering courses. Relevant science courses include physics, chemistry, astronomy, or biology. Two sequential courses must be from the same field and one must be from another field. In some cases, certain technology courses might be applied to this requirement.

Computer Science

Two credit hours of computer programming; may be satisfied by taking ITM 311.

Humanities and Social Sciences

Nine semester hours. Humanities include literature, philosophy (except logic), and history. Social or behavioral sciences typically include anthropology, geography, political science, psychology, sociology, and economics. Studies must include a minimum of three semester hours in Humanities and three semester hours in the Social Sciences.

Mathematics

Five semester hours of mathematics at the level of MATH 119 or above; Probability and Statistics is highly recommended. Students who enter the program with less than sixty hours of total transfer credit or less than five hours of mathematics credit will be required to take BUS 221, Statistics for Managerial Decision Making.

Free or Technical Electives

Thirty-three semester hours of approved courses. Students should contact Undergraduate Academic Affairs for additional information.

Bachelor of Information Technology and Management

Transfer students are required to take 69 semester hours at IIT and transfer 60 semester hours to complete the bachelor's degree for a total of 129 semester hours. This includes 17 information technology courses for a total of 51 semester hours in the major. An additional 18 semester hours outside the major must be taken at IIT in order to satisfy the remaining IIT General Education Requirements. These include four 300/400-level humanities and social science electives and two IPRO courses. Two social science electives must be from the same field and one must be from a different field; lower level social science electives count towards this requirement. The computer science general education requirement may be satisfied by completion of ITM 311. Students who enter the program with less than sixty hours of total transfer credit or less than five hours of mathematics credit will be required to take BUS 221, Statistics for Managerial Decision Making.

All students must complete a minimum of 42 semester hours of courses with a significant written and oral communication component, identified with a (C) in the bulletin; 15 hours of (C)-coded courses must be taken in the major.

Entering the Bachelor of Information Technology and Management program as a first-year student requires the completion of 126 to 130 hours of coursework (depending on mathematics placement) which must include a minor. ITM students completing a minor are strongly encouraged to consider minors which complement their primary program of study; these include (but are not limited to) Industrial Logistics; Industrial Facilities; Manufacturing Technology; Business, Professional and Technical Communications; Management; Technology and Human Affairs; Circuits and Systems; Computer Architecture; and ROTC. Courses taken to fulfill a minor requirement may not also be used as electives in the major.

Current IIT students, who entered as first year students, and are changing their major to Information Technology and Management from another major are expected to the meet the same requirements as students entering the Bachelor of Information Technology and Management program as first-year students, except that the minor requirement may be waived.

A maximum of nine hours of ITM graduate courses taken as an undergraduate may be applied to the Master of Information Technology and Management degree, and any graduate courses taken to fulfill undergraduate degree requirements may not also be applied to a graduate degree.

Bachelor of Information Technology and Management (Transfer, Part-Time Program)

Required Courses	Credit Hours
Courses Transferred (or taken at IIT)	60
Humanities Electives 300/400 level courses required	6
Social Sciences Elective 300/400 level courses required	6
Interprofessional Projects	6
ITM Requirements ITM 301, 302, 311, 312, 411, 421, 434, 440, 448, 461, 471	33
ITM Electives	18
Total Hours	**129**

Information Technology and Management Curriculum

(students entering as transfer, part-time)

Semester 1		Credits
ITM 301	Contemporary Op Sys/Hardware I	3
ITM 311	Intro to Software Development	3
ITM 421	Data Modeling and Applications	3
Total Hours		**9**

Semester 2		Credits
ITM 302	Contemporary Op Sys/Hardware II	3
ITM 312	Intro to Systems Software Programming	3
Humanities Elective (300+)		3
Total Hours		**9**

Semester 3		Credits
ITM 411	Intermediate Software Development	3
ITM 440	Intro to Data Networks and the Internet	3
Social Sciences Elective (300+)		3
Total Hours		**9**

Semester 4		Credits
ITM 448	Systems and Network Security	3
ITM 461	Internet Technologies and Web Design	3
Humanities Elective (300+)		3
Total Hours		**9**

Semester 5		Credits
ITM 434	Human/Computer Interaction	3
ITM Elective		3
Social Sciences Elective (300+)		3
Total Hours		**9**

Semester 6		Credits
ITM 471	Project Management for Info Technology	3
IPRO 497	Interprofessional Project I	3
ITM Elective		3
Total Hours		**9**

Semester 7		Credits
IPRO 497	Interprofessional Project II	3
ITM Elective		3
ITM Elective		3
Total Hours		**9**

Semester 8	Credits
ITM Elective	3
ITM Elective	3
Total Hours	**6**

Total Credit Hours **69**

Bachelor of Information Technology and Management (Program for First-Year Students)

Required Courses	Credit Hours
ITM Requirements ITM 100, 301, 302, 311, 312, 411, 421, 434, 440, 448, 461, 471	35
ITM Electives	18
Mathematics Requirements* BUS 221, MATH 120 & 121 OR MATH 148 & 149 OR MATH 151	8-12
Engineering Requirement EG 225	3
Natural Science and Engineering Requirements For general education requirements, see page 25.	8
Humanities and Social Sciences Requirements	21
Psychology Requirement PSYC 301	3
Technical Communication Requirement COM 421	3
Interprofessional Projects	6
Minor Electives	15
Free Electives	6
Total Hours	**126-130**

* Choose from MATH 120 & 121, MATH 148 & 149, or MATH 151.

Information Technology and Management Curriculum

(program for first-year students)

Semester 1		Credits
EG 225	Engineering Graphics for Non-Engineers	3
Freshman MATH sequence Elective*		3-5
Natural Science or Engineering Elective		4
Humanities or Social Sciences Elective		3
Total Hours		**13-15**

Semester 2		Credits
ITM 100	Introduction to the Profession	2
ITM 301	Contemporary Op Sys/Hardware I	3
ITM 311	Intro to Software Development	3
Freshman MATH sequence Elective*		3-5
Natural Science or Engineering Elective		4
Total Hours		**15-17**

Semester 3		Credits
ITM 302	Contemporary Op Sys/Hardware II	3
ITM 312	Introduction to Systems Software Prog	3
ITM 461	Internet Technologies and Web Design	3
Minor Elective		3
Humanities 100-level Elective		3
Social Sciences Elective		3
Total Hours		**18**

Semester 4		Credits
ITM 434	Human/Computer Interaction	3
ITM 440	Intro to Data Networks and the Internet	3
ITM 441	Intermediate Software Development	3
BUS 221	Statistics for Managerial Decision Making	3
Minor Elective		3
Minor Elective		3
Total Hours		**18**

Semester 5		Credits
ITM 448	System and Network Security	3
PSYC 301	Industrial Psychology	3
ITM Elective		3
ITM Elective		3
Humanities Elective (300+)		3
Free Elective		2
Total Hours		**17**

Semester 6		Credits
ITM 421	Data Modeling and Applications	3
COM 421	Technical Writing	3
IPRO 497	Interprofessional Project	3
Social Sciences Elective (300+)		3
Minor Elective		3
Total Hours		**15**

Semester 7		Credits
ITM 471	Project Management for Info Technology	3
Minor Elective		3
ITM Elective		3
Humanities Elective (300+)		3
Free Elective		3
Total Hours		**15**

Semester 8		Credits
IPRO 497	Interprofessional Project	3
Minor Elective		3
ITM Elective		3
ITM Elective		3
Social Sciences Elective (300+)		3
Total Hours		**15**

Total Credit Hours **126-130**

* Choose from MATH 120 & 121, MATH 148 & 149, or MATH 151.

Information Technology Curriculum Specializations

The ITM electives may be chosen from one or more of the following course specializations. With the permission of the advisor, other undergraduate or graduate courses in the same area may be substituted for courses in a specialization.

Systems Security

Focuses on application, data, and network security and the management of information technology security.

ITM 443 Vulnerability Analysis and Control
ITM 451 Distributed Workstation System Administration
OR
ITM 452 Client-Server System Administration
ITM 458 Operating System Security
ITM 478 Information Systems Security Management

Data Management

Focuses on the design, development and administration of traditional and Internet-based data management.

ITM 422 Advanced Database Management
ITM 428 Database Security
ITM 444 Cloud Computing Technologies
ITM 462 Web Site Application Development

Web Design and Application Development

Focuses on the design and development of fully-interactive web sites and applications for Internet deployment.

ITM 441 Network Applications and Operations
ITM 462 Web Site Application Development
ITM 465 Rich Internet Applications
OR
ITM 469 Topics in Application Development
ITM 466 Service Oriented Architecture

IT Entrepreneurship and Management

Focuses on the managerial and entrepreneurial skills needed to launch a new enterprise.

ITM 441 Network Applications and Operations
BUS 210 Financial and Managerial Accounting
BUS 301 Theory of Organization and Management
BUS 305 Operations Management
BUS 371 Introduction to Marketing

Software Development

Focuses on programming and the development of sophisticated applications.

ITM 412 Advanced Structured and System Programming
OR
ITM 419 Topics in Software Development
ITM 413 Open Source Programming
ITM 415 Advanced Software Development
ITM 462 Web Site Application Development
ITM 478 Information System Security Management

System Administration

Focuses on the administration and management of servers.

ITM 441 Network Applications and Operations
ITM 451 Distributed Workstation System Administration
OR
ITM 452 Client-Server System Administration
ITM 454 Operating System Virtualization
OR
ITM 458 Operating System Security
ITM 456 Introduction to Open Source Operating Systems

Networking and Communications

Focuses on network applications and management.

ITM 441 Network Applications and Operations
ITM 451 Distributed Workstation System Administration
OR
ITM 452 Client-Server System Administration
ITM 478 Information System Security Management
ITM 491 Undergraduate Research

IIT/College of DuPage and IIT/Joliet Junior College Dual Admissions Programs

Students who meet the requirements of the Dual Admissions Program (DAP) may enroll simultaneously at the College of DuPage (COD) or Joliet Junior College (JJC) and IIT. Students accepted into the DAP will have access to advising and other services from both institutions. Students who successfully complete the institutional course requirements of both institutions under the DAP will be awarded an Associate's Degree from COD or JJC and a Bachelor of Information Technology and Management from IIT.

Eligibility for the Program
Students applying to the DAP must be enrolled in one of the following programs:

At COD: Associate of Applied Science Degree in Computer Information Systems or Associate of Applied Science Degree in Computer Internetworking Technologies

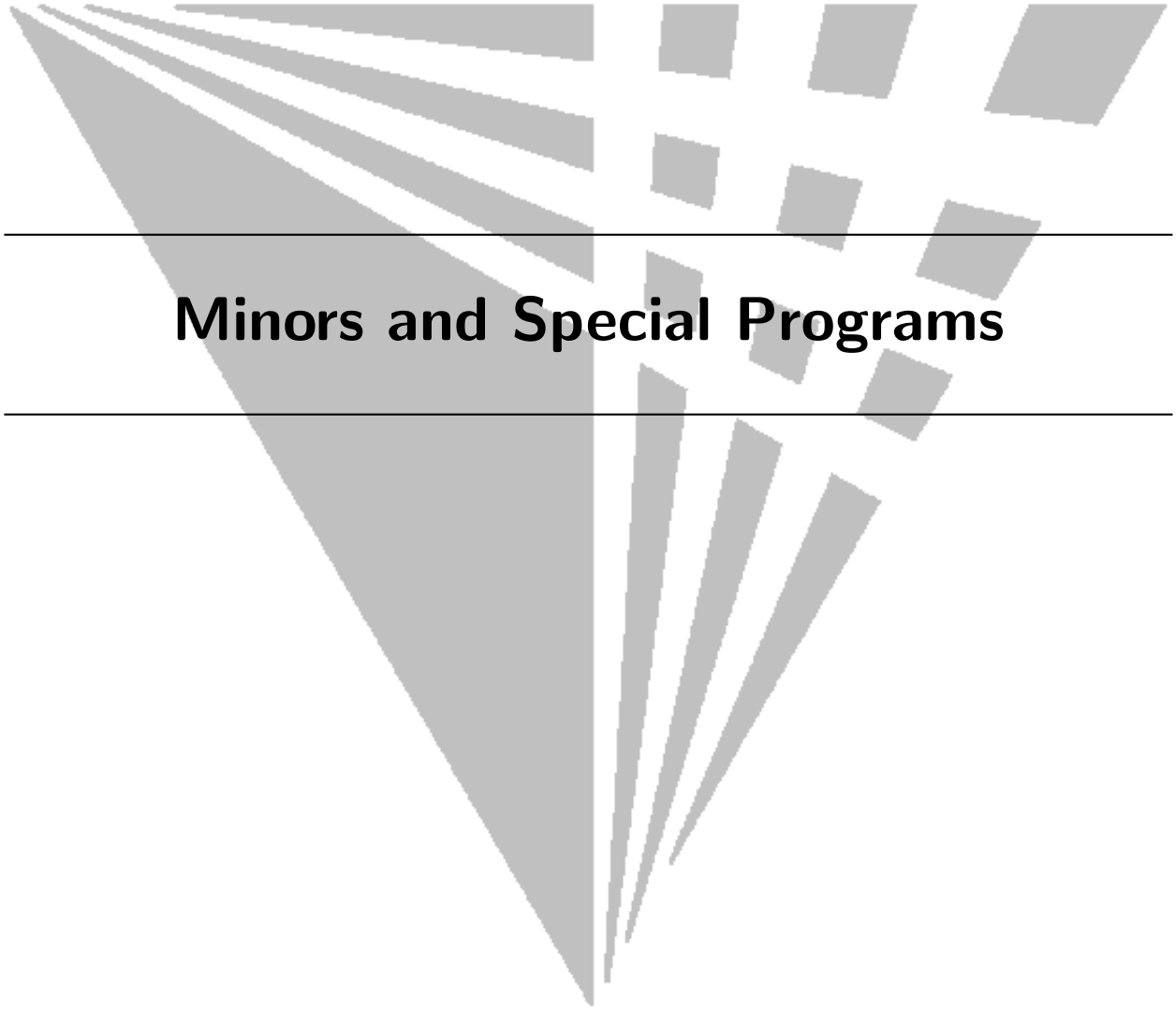
At JJC: Associate of Applied Science Degree in Computer Information Systems; Network Specialist, Programming or Web Design and Administration Options

Students must have and maintain a cumulative grade point average of at least 3.0 at COD or JJC to be eligible for admission to IIT. Students must make satisfactory academic progress at COD, as defined by COD, or at JJC, as defined by JJC.

Application Process
Applicants must complete a Statement of Intent form, which permits the exchange of academic admission and advising information between IIT and COD or JJC. Applicants must also complete the application process at both COD or JJC and IIT in order to be admitted to both institutions. The IIT application may be submitted only for a bachelor's program in Information Technology and Management. Admission to other IIT programs may have additional requirements that are outside the scope of the program.

Academic Program Requirements
Students must follow each institution's policies regarding admission, course enrollment, transfer hours, probation, dismissal and re-instatement. Transcripts must be sent to the IIT Office of Educational Services each semester for each student attending COD or JJC and enrolled in the DAP. IIT will provide COD and JJC with major and course updates, course prerequisites and program requirements for the Information Technology and Management bachelor's degree completion program.

Graduation Requirements
Students enrolled in the DAP must follow the COD or JJC catalog to satisfy requirements for the Associate's Degree and the requirements set out in the IIT Undergraduate Bulletin in effect at the time of admission into the DAP for the Baccalaureate Degree.



Minors and Special Programs

Minors

Minors consist of at least five courses (minimum 15 semester hours) and are optional and frequently cross-disciplinary. Since they provide a coherent set of ideas, concepts and educational experiences in a variety of areas, students may find that they enhance potential for professional development. Students who wish to pursue a minor must consult with advisors in their respective major departments. Courses used to satisfy general education or major requirements do not apply to a minor. Exceptions may be made in individual cases.

NOTE:
Not all minors are applicable to all majors.

Following are approved minors:

Aerospace Science (ME & MSE majors only)

- Mechanical Engineering Majors:
  MMAE 311, MMAE 312, MMAE 452, one course from each of the following group of courses: (MMAE 410, MMAE 411, MMAE 441) and (MMAE 412, MMAE 414, MMAE 436, MMAE 437).
- Materials Science Engineering Majors:
  MMAE 304, MMAE 310 or MMAE 313, MMAE 311, MMAE 312, and one of the following courses: MMAE 350, MMAE 410 or MMAE 411 or MMAE 441, MMAE 443, MMAE 452.

Air Force Aerospace Studies
AS 101, AS 102, AS 201, AS 202, AS 301, AS 302, AS 401, AS 402. Attendance at a five-week field training camp may be substituted for AS 101, AS 102, AS 201, and AS 202.

Applied Mathematics
MATH 230, MATH 252, MATH 332, and at least two courses in mathematics at the 400-level.

Applied Mechanics (AE & MSE majors only)

- Aerospace Engineering Majors:
  MMAE 432 or MMAE 433, and four of the following courses: MMAE 321, MMAE 322 or MMAE 323, MMAE 302 or MMAE 306 or MMAE 332, MMAE 445, MMAE 485.
- Materials Science Engineering Majors:
  MMAE 302 or MMAE 306 or MMAE 332, MMAE 310 or MMAE 313, MMAE 322 or MMAE 323, MMAE 350, MMAE 432 or MMAE 445

Architecture (non-architecture majors only)
This minor consists of 15 semester hours. ARCH 100, ARCH 109, ARCH 113, either AAH 119 or AAH 120, and one of the following courses: ARCH 114, ARCH 125, ARCH 321, ARCH 403, and ARCH 413. Those students preparing for competitive application to graduate programs in architecture are encouraged to select ARCH 114.

Artificial Intelligence
CS 201, CS 330, CS 331, CS 430, CS 480.

Biochemistry
BIOL 214, BIOL 401, BIOL 402, BIOL 404, BIOL 445.

Biology
BIOL 107, BIOL 115, BIOL 214, BIOL 445, and one of the following: BIOL 210, BIOL 305, BIOL 327, BIOL 401, BIOL 402, BIOL 404, BIOL 410, BIOL 426, BIOL 430, BIOL 446, or an approved Biology elective at the 500-level.

Building Systems Engineering
CAE 331, CAE 334, CAE 461, CAE 464, and one of the following courses: CAE 403, CAE 409, CAE 425, CAE 463, CAE 465, CAE 466, CAE 467

Business
BUS 210 or (BUS 211 and BUS 212), ECON 211 or (ECON 151 and ECON 152), BUS 301 and two of the following three courses: ECON 423, BUS 371, or BUS 305. Chemical engineering majors should also take CHE 426 or another engineering science course.

Chemistry
At least 15 credit hours must be completed from the following courses: CHEM 247; one of the sequences: (CHEM 237 and CHEM 239) or (CHEM 343 and CHEM 344); and electives chosen from 300- and 400-level chemistry courses.

Circuits and Systems
(non-EE, non-CPE majors only)
ECE 211, ECE 213, ECE 218, and one of the following sequences: (ECE 308 and ECE 403), (ECE 308 and ECE 438), or (ECE 319 and ECE 420).

Communication
15 credit hours of communication coursework, at least nine of which must be at or above the 300-level, chosen in consultation with the minor advisor.

Computational Structures
CS 201, CS 330, CS 331, CS 430, MATH 350.

Computer Architecture
CS 201, ECE 218, CS 331, CS 350, CS 470.

Computer Networking
CS 201, CS 331, CS 350, CS 450, CS 455.

Construction Management
CAE 470, CAE 471, CAE 472, CAE 473, ECON 423.

Database Management
CS 201, CS 331, CS 425, CS 445 and one of the following courses: CS 422 or CS 429.

Electromechanical Design and Manufacturing (AE and ME majors only)

- Aerospace Engineering majors:
  MMAE 445, MMAE 485, BUS 305, ECE 218, ECE 242, ECE 441 (replaces PHYS 300).
- Mechanical Engineering majors:
  MMAE 444, MMAE 485, BUS 305, ECE 218, ECE 242, ECE 441 (replaces PHYS 300).

Energy/Environment/Economics (E^3)
This minor consists of 15 semester hours. CHE 543,

- Six (6) credit hours from the following courses: CHE 465, CHE 467, CHE 489, CHE 491, CHE 522, CHE 541, CHE 565, CHE 582, ECE 319, ECE 411, ECE 419, ECE 420, ECE 438, MMAE 424, MMAE 425, MMAE 426 or MMAE 522, MMAE 524, MMAE 525.
- Six (6) credit hours from the following courses: ENVE 426, ENVE 404, ENVE 463, ENVE 485, ECE 491, ECE 497, MMAE 491, MMAE 494, MMAE 497, ECON 423, or PS 338. Appropriate substitution may be made with the approval of the program advisor.

Engineering Graphics and CAD
EG 105 or (CAE 100 and CAE 101), EG 305, EG 306, EG 405, EG 406, EG 419.

English Language/Literature
Six credit hours of English linguistics courses, six credit hours of Literature courses, and a 3-credit hour course in either English linguistics or literature. At least 9 credit hours must be at or above the 300-level.

Entrepreneurship
BUS 210, BUS 361, BUS 371, two entrepreneurial IPROs (EnPROs), and one of the following courses: BUS 363, ECON 211, or ECON 423.

Environmental Engineering
This minor consists of 15 semester hours.

- Environmental Engineering:
  At least six credit hours from the following courses: ENVE 404, ENVE 426, ENVE 463, ENVE 485, ENVE 491.
- Civil Engineering:
  Six credit hours from the following courses: CAE 421, CAE 482, CAE 483, CAE 484.

Appropriate substitution may be made with the approval of the program advisor.

Graphics and CAD for Non-Engineers
EG 225, EG 325, EG 329, EG 425, EG 429.

History
At least 15 credit hours of history courses numbered 300 level or above must be completed. These courses should be chosen in consultation with minor advisor.

Human Resources
PSYC 221, PSYC 301, PSYC 310, PSYC 409 PSYC 455, PSYC 481.

Information Security
ITM 421, ITM 428, ITM 440, ITM 448, ITM 478.

Information System Administration
ITM 301, ITM 302, ITM 440, and six credit hours from the following courses: ITM 451, ITM 452, ITM 454, ITM 456.

Information System Network Management
ITM 440, ITM 441, ITM 448, ITM 471, and one of the following courses: ITM 456, ITM 461.

Information Technology and Management
ITM 301, ITM 302, ITM 421, ITM 440, ITM 471.

Internet Application Development
ITM 311, ITM 411, ITM 461, ITM 462, and one of the following courses: ITM 465, ITM 466, ITM 469, or an applicable COM course (with advisor approval).

Law and Society
At least 15 credit hours must be completed, including the following: PHIL 362, PS 318, PS 356, PS 365, PS/SOC 321.

Legal Studies
PHIL 362, PS 319, PS 356, PS 365, and one course chosen from the following: BUS 341, PHIL/COM 377, a law-oriented course such as CAE 473 or MMAE 435

Linguistics
Fifteen (15) credit hours of linguistics coursework, at least 9 of which must be at or above the 300-level, chosen in consultation with the minor advisor.

Literature
At least 15 credit hours in 300-level literature courses must be completed.

Management
see Business minor

Materials Science

- Mechanical Engineering majors:
  MMAE 365, MMAE 370, MMAE 463, and two of the following courses: MMAE 465, MMAE 468 or MMAE 472, MMAE 470, MMAE 476, MMAE 482 or MMAE 472.
- Aerospace Engineering majors:
  MMAE 365, MMAE 370, MMAE 463, and two of the following courses: MMAE 465, MMAE 468 or MMAE 472, MMAE 470, MMAE 476, MMAE 482 or MMAE 472, MMAE 485.
- Non-MMAE majors:
  MS 201, MMAE 365, MMAE 463, MMAE 465, and one of the following courses: MMAE 370, MMAE 468, MMAE 470

Mathematics and Science Education
MSED 200, MSED 250, MSED 300 and two additional MSED courses chosen in consultation with the minor advisor.

Military Science
MILS 101, MILS 102, MILS 201, (MILS 107 or MILS 202) (these courses will at times be interchanged) or attendance at military training; MILS 301, MILS 302, MILS 401, MILS 402.

Music
15 credits in music theory or practice taken at VanderCook College of Music. A maximum of three semester hours of performance courses may be used towards a minor. Students should contact Educational Services concerning applicability of courses toward graduation.

Naval Science
NS 101, NS 102 (Navy option), NS 201 (Navy option), NS 202 (attendance at the Naval Science Institute may be substituted for the preceding courses), NS 301 (Navy option), NS 302 (Navy option), NS 310 (Marine option), NS 401, NS 402, NS 410 (Marine option).

Operating Systems
CS 201, CS 331, CS 350, CS 351, CS 450.

Organizational Psychology
PSYC 221, PSYC 301, PSYC 303, PSYC 310, PSYC 409.

Philosophy
At least 15 credit hours of philosophy courses numbered 300-level or above.

Philosophy and Sociology of Science
At least 15 credit hours must be completed, including PHIL 341, and at least four of the following courses: PHIL 302, PHIL 326, PHIL 342, PHIL 343, PHIL 350, SOC 301, SOC 302, SOC 303.

Physics
PHYS 300 or PHYS 427, PHYS 308, PHYS 348, PHYS 405, PHYS 413.

Political Science
PS 200, PS 209, (PS 230 or PS 232), and 6 hours in political science electives at the 300-level or above. Courses from one Political Science specialization (see page 154) are recommended.

Polymer Science and Engineering
This minor consists of 15 semester hours.

- One course from the following: CHE 470, CHEM 470, MMAE 470.
- At least three courses from the following: CHE 538, CHE 555, CHE 575, CHE 581, CHEM 535, CHEM 537, CHEM 542, MMAE 483, MMAE 487, MMAE 579, MMAE 580, MMAE 581.
- Up to one course from the following: CHE 426, CHE 489, CHE 491, CHE 582, FPE 541, MMAE 451, MMAE 485.

Appropriate substitution may be made with the approval of the program advisor.

Premedical Studies
This specialized minor is intended for those students who plan to apply to a medical school, and have been approved by the Premedical Advisory Committee. Note: Students who major in biology or molecular biochemistry and biophysics satisfy the premedical studies course requirements.

- Biomedical Engineering:
  - Neural Engineering or Medical Imaging Track: CHEM 237, CHEM 239, CHEM 240 and at least six credit hours chosen from the following: BIOL 210, BIOL 214, BIOL 225, BIOL 401, BIOL 402, BIOL 404, BIOL 445, BIOL 446, BME 491 (1-3 credit hours), BME 495 (1-3 credit hours). If CHEM 237 or CHEM 239 is taken as an option, then add equivalent number of credit hours from courses listed above.
  - Cell and Tissue Track: CHEM 240, and at least 13 credit hours chosen from the following: BIOL 210, BIOL 214, BIOL 225, BIOL 401, BIOL 402, BIOL 404, BIOL 445, BIOL 446, BME 491 (1-3 credit hours), BME 495 (1-3 credit hours).
- Chemical Engineering: BIOL 107, BIOL 109, BIOL 115, BIOL 117, CHEM 240, CHE 426 or one 3-credit engineering science course.
- Chemistry: Students interested in pursuing chemistry as a premedical degree can elect the Bachelor of Science in Chemistry with emphasis in Biological Chemistry optional degree program which includes all of the necessary courses for entrance into medical school. Alternatively, students can pursue any of the other optional degree programs in chemistry but must take the following additional courses to be awarded the premedical minor: BIOL 107, BIOL 109, BIOL 115, BIOL 117, BIOL 214, and choose one of the following: BIOL 430 or BIOL 445.
- Electrical Engineering: BIOL 107, BIOL 109, BIOL 115, BIOL 117, CHEM 125, CHEM 237, CHEM 239, CHEM 240.
- Materials Science and Engineering: BIOL 107, BIOL 109, BIOL 115, BIOL 117, CHEM 237, CHEM 239, CHEM 240.
- Mechanical Engineering: BIOL 107, BIOL 109, BIOL 115, BIOL 117, CHEM 125, CHEM 237, CHEM 239, CHEM 240.
- Computer Science: BIOL 107, BIOL 109, BIOL 115, BIOL 117, CHEM 124, CHEM 125, CHEM 237, CHEM 239, CHEM 240.
- Physics: BIOL 107, BIOL 109, BIOL 115, BIOL 117, CHEM 237, CHEM 239, CHEM 240.

Professional and Technical Communication
COM 421 plus 12 credit hours of communication coursework in consultation with the minor advisor.

Programming Languages
CS 201, CS 331, CS 350, CS 351, CS 440.

Psychology
At least 15 credit hours must be completed, including the following two required courses: PSYC 203, PSYC 221.

Public Administration
PS 200, PS 306, PS 314, PS 315, PS 351.

Rehabilitation Services
PSYC 410, PSYC 411, PSYC 412, PSYC 583, PSYC 590.

Sociology
SOC 200, SOC 203, plus an additional 9 credit hours chosen in consultation with the departmental advisor.

Software Engineering
CS 201, CS 331, CS 441, CS 445, CS 487.

Structural Engineering (non-CAE majors only)
CAE 303, CAE 304, CAE 307, CAE 310, CAE 315.

Technology and Human Affairs
At least 15 credit hours must be completed from the following: HIST 383, PHIL 370, PS 332, PS 338, PS/SOC 353, SOC 356, SOC 359, SOC 362.

Telecommunications
CS 116 or CS 201; ECE 403, ECE 407 and ECE 436; and two telecommunications electives chosen from CS 331, CS 450, or ECE 449.

Urban Affairs
HIST 350, HIST 352, PS 315, PS 317, and (SOC 350 or SOC 311).

Web Communication
COM 430, COM 431, COM 432, and two courses chosen in consultation with the minor advisor.

Study Abroad

IIT encourages students of all majors to consider studying abroad for part of their undergraduate career. Studying abroad enriches the college experience by providing a different intellectual and cultural environment and often enriches the academic program by giving breadth to the major discipline.

Students wishing to participate in an exchange program or to study abroad should first contact the International Center for information, application forms, and procedural guidelines. The application process should begin approximately one year before study abroad is anticipated. Only students whose applications are approved by the Study Abroad Committee are permitted to participate in an exchange program or a study abroad program. For more information, please visit the Study Abroad website at **studyabroad.iit.edu**.

General Exchange Programs

IIT has undergraduate exchange programs with the following universities: Institut National des Sciences Appliquées de Lyon (INSA-Lyon), Lyon, France; The Royal Institute of Technology (KTH), Stockholm, Sweden; University of Oviedo, Austurias, Spain; AGH University of Science and Technology (AGH), Krakow, Poland; and University College Cork (UCC), Cork, Ireland.

Business Exchanges

Students majoring in business may participate in the following exchange programs: Instituto Tecnologico de Monterrey, Monterrey, Mexico; Pforzheim University, Pforzheim, Germany and Singapore Management University, Singapore.

Engineering/Computer Science Exchanges

IIT is member of the Global Engineering Education Exchange (GE^3), allowing students to take engineering and computer science courses abroad as an exchange student in over 20 countries, many courses taught in English.

General Study Abroad Opportunities

IIT has many ties with universities around the world where students can earn IIT credit with courses provided in English or in a foreign language. Prior to participating in a study abroad program, a student must meet the international university's admission criteria and must submit an academic plan of study. Recently, students have attended universities in Australia, England, France, Germany, Mexico, Italy, Singapore, Sweden, Japan, Korea, and more.

IIT Program in Paris, France

IIT offers a summer program in Paris led by IIT faculty for students in any major. IIT's College of Architecture manages a semester based program in Paris, France where architecture majors can take classes with IIT faculty.

Joint Programs

IIT has established joint programs with the following Chicago-area institutions: DePaul University, Wheaton College, Benedictine University, Elmhurst College, Dominican University and University of St. Francis. These programs differ from a 3+2 transfer program in that students earn two degrees: a bachelor's degree in an engineering discipline from IIT and a bachelor's degree in an approved discipline from their host school. Students will live on the campus of their host school while completing the requirements for both degrees.

Admission into the Joint Program at another institution does not guarantee admission to IIT. For additional information, students should contact the Office of Undergraduate Admission (see page 10).

Dual Admissions Programs

IIT has established dual admissions programs with College of DuPage and Joliet Junior College. These 2+2 programs allow students to complete an Associate's degree and a Bachelor's degree in 4 years of study with transfer credit. The bachelor's degree program areas include Information Technology and Management (ITM) and Psychology. For more information, see the Information Technology and Management or Psychology sections of this bulletin, under Optional Programs, or contact the Office of Undergraduate Admission (see page 10).

Reserve Officers Training Corps (ROTC)

ROTC programs are available as minors in the regular IIT degree programs. These programs enable men and women to become commissioned officers in the U.S. Air Force, Army, Marine Corps or Navy upon graduation with a bachelor's degree. ROTC/IIT combined scholarships in many cases allow winners to attend IIT free of charge. Contact the IIT Admission Office or any of IIT's ROTC departments for scholarship/program information.

Shimer College

Shimer College, a small liberal arts college devoted principally to studying the Great Books, is located on the IIT-Chicago campus. The study of classic texts, in discussion classes of 12 students or fewer, offers a uniquely rigorous and stimulating four-year liberal arts education.

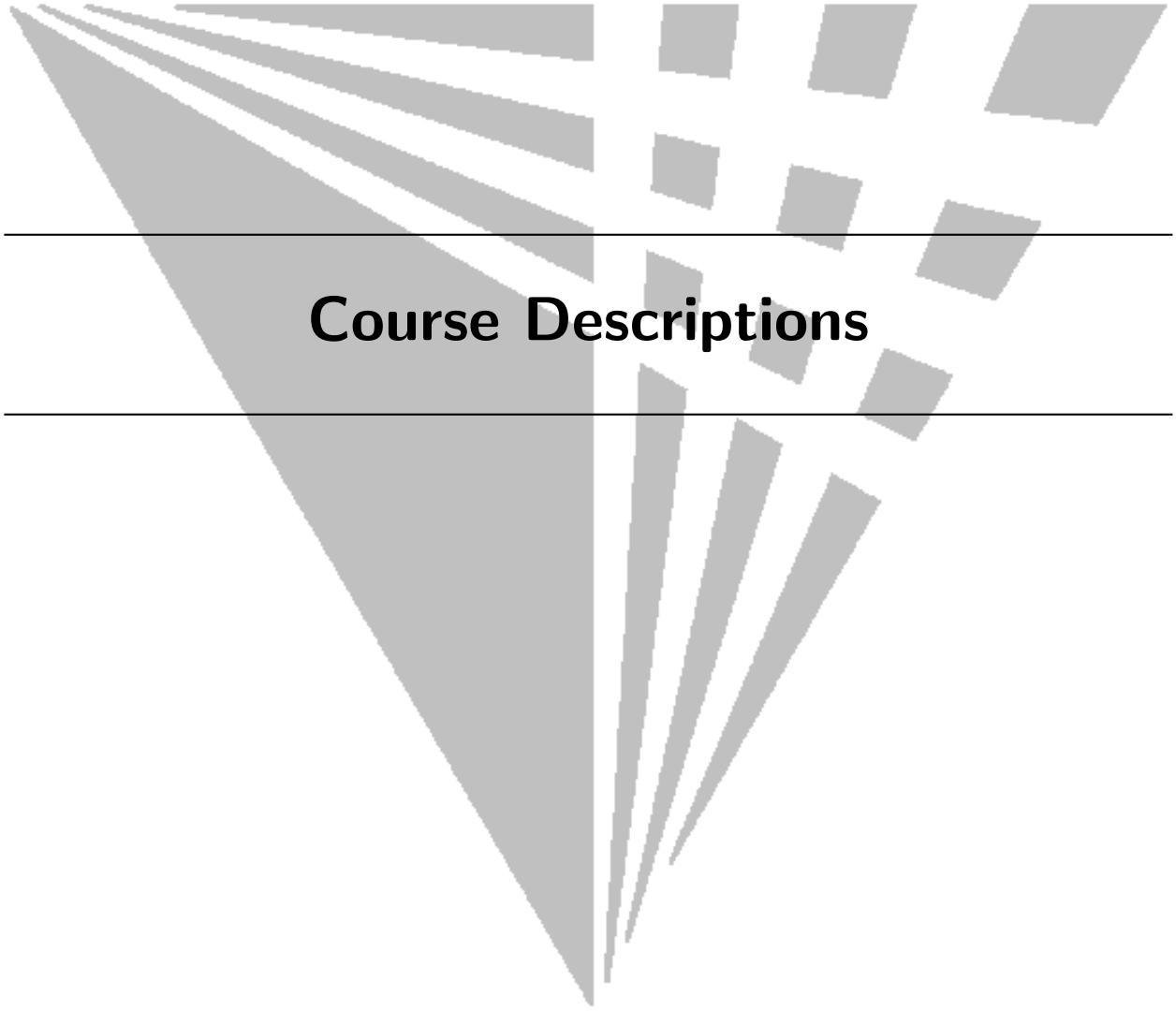
IIT students in good standing may take courses at Shimer College. Many Shimer College courses may be used as electives in IIT degree programs. Admission to Shimer College classes is on a space-available basis and students may be asked to satisfy other requirements prior to acceptance into a Shimer College class. All students must be approved by both Shimer College and IIT to enroll in these classes. Please contact the Office of Undergraduate Academic Affairs (**ugaa@iit.edu**) for further information.

Shimer students who wish to take classes at IIT should contact the Office of Undergraduate Admission (see page 10).

VanderCook College of Music

Full-time IIT students in good standing may take courses offered at VanderCook College of Music. The following VanderCook courses, HIST 203, HIST 204, HUM 301, and FT 301 may be used as humanities electives in all IIT degree programs. A maximum of three semester hours of performance courses may be used as free electives. Please contact the Office of Undergraduate Academic Affairs for further information.

Admission to VanderCook courses is on a space-available basis and students may be asked to audition or to satisfy other requirements prior to acceptance into a VanderCook course. Approval of the IIT Bursar's office also is required since there is a fee for taking a course at VanderCook.



Course Descriptions

Interprofessional Projects

IPRO 497
Interprofessional Project (IPRO)
Interprofessional projects allow students to learn teamwork, leadership and project management skills, while working in multidisciplinary teams on projects involving technical, ethical, environmental, economic, public policy, and legal issues. IPRO project teams are typically comprised of 10-12 students from sophomore through graduate level and from all disciplines that can contribute to a project. Every effort will be made to accommodate students' first choices; however, it may be necessary to balance students across all projects scheduled for the semester or to consolidate students into fewer projects to meet minimum team requirement. Specific rules about selection of IPRO projects may apply to certain degree programs. Some projects may carry Humanities or Social Science credit. Students are encouraged to consult the lead faculty member for the project and their faculty advisor before registering for a project.
(1-6-3) **(C)**

Information Technology and Management

ITM 100
Introduction to Information Technology as a Profession
This course introduces students to the steps necessary to analyze a problem in information technology and identify and define the computing requirements appropriate to its solution, with a focus on how to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs. Students learn to analyze the local and global impact of computing on individuals, organizations, and society. This course leads students to recognize the need for continuing professional development and imparts an understanding of professional, ethical, legal, security and social issues, and responsibilities in information technology. Students write and present, building their ability to communicate effectively with a range of audiences, and work in teams learning to function effectively together to accomplish a common goal.
(2-0-2) **(C)**

ITM 300
Communication in the Workplace
Review, analyze and practice verbal and written communication formats found in the workplace. Emphasis on developing skills in technical writing and oral presentations using electronic and traditional media. Credit not granted for both ITM 300 and COM 421. INTM 301 may be substituted for this course.
(0-0-3) **(C)**

ITM 301
Introduction to Contemporary Operating Systems & Hardware I
Students study the basics of computer architecture and learn to use a contemporary operating system. Hardware requirements, microcomputer components, software compatibility and system installation and options are covered, along with post-installation topics, storage, security and system diagnosis and repair.
(2-2-3)

ITM 302
Introduction to Contemporary Operating Systems & Hardware II
Introduces features of an advanced operating system, including basic commands, file and directory manipulation, text editing and suitability for server applications. Basic programming in this environment will be addressed through shell scripting for job automation along with shell built-in data types, condition, loops, functions and regular expressions.
(2-2-3)

ITM 311
Introduction to Software Development
A broad introduction to object-oriented programming and the related knowledge necessary to program in a contemporary programming language. This would include coverage of an Application Development Kit, creating stand-alone applications and applets for enhancing web pages.
(2-2-3)

ITM 312
Introduction to Systems Software Programming
Introduces basic concepts of systems programming. Students learn to apply basic programming concepts toward solving problems, create source files and header files, work with and effectively use basic data types, compile source code into binary executable files, and understand use of the "make" utility for project management.
(2-2-3)

ITM 411
Intermediate Software Development
This course covers a broad spectrum of object- oriented programming concepts and application programming interfaces. The student considers the details of object-orientated development in topics of multi-threading, data structure collections, stream I/O and client interfaces. Software engineering topics of packaging and deployment are covered as well. Hands-on exercises reinforce concepts taught throughout the course.
Prerequisite(s): [(ITM 311)]
(2-2-3)

ITM 412
Advanced Structured & Systems Programming
Structured programming continues with advanced concepts including strings, arrays, pointers, data structures, file manipulation, and dynamic memory management. Students create more complex applications that work with user input, manipulate user supplied text or text obtained from a file, apply standard library routines for working with literal text, use pointers to store complex structures within arrays, and read and write data from files, the console, and the terminal. The object-oriented programming (OOP) paradigm is covered in depth including the philosophy of OOP, classes and objects, inheritance, template classes, and making use of class libraries.
Prerequisite(s): [(ITM 312)]
(2-2-3)

ITM 413
Open-Source Programming
Contemporary open-source programming languages and frameworks are presented. The student considers design and development topics in system, graphical user interface, network, and web programming. Dynamic scripting languages are covered using object-oriented, concurrent, and functional programming paradigms. Concepts gained throughout the course are reinforced with numerous exercises which will culminate in an open-source programming project.
Prerequisite(s): [(ITM 311)]
(2-2-3)

ITM 415
Advanced Software Develpment
This course considers Web container application development for enterprise systems. The primary focus is on database connectivity (JDBC) integration with Web application programming using an enterprise-level application framework. A Web application term project considers the design and implementation of a database instance that serves as the information tier in a contemporary 3-tier enterprise solution.
Prerequisite(s): [(ITM 411)]
(2-2-3)

ITM 419
Topics in Application Development
This course will cover a particular topic, varying from semester to semester, in which there is particular student or staff interest. This course may be taken more than once but only 9 hours of ITM 419 credit may be applied to a degree. Permission of instructor is required.
(Credit: Variable)

ITM 421
Data Modeling & Applications
Basic data modeling concepts are introduced. Hands- on database design, implementation, and administration of single-user and shared multi-user database applications using a contemporary relational database management system.
(2-2-3)

ITM 422
Advanced Database Management
Advanced topics in database management and programming including client server application development are introduced. Expands knowledge of data modeling concepts and introduces object-oriented data modeling techniques. Students will learn the use of Structured Query Language in a variety of application and operating system environments.
Prerequisite(s): [(ITM 421)]
(3-0-3) **(C)**

ITM 428
Database Security
Students will engage in an in-depth examination of topics in data security including security considerations in applications and systems development, encryption methods, cryptography law and security architecture and models.
Prerequisite(s): [(ITM 421)]
(3-0-3)

ITM 434
Human/Computer Interaction
Introduction to human-computer interaction, a discipline concerned with the design, evaluation, and implementation of interactive computing systems for human use. Emphasis is given to the structure of communication between people and computers, capabilities of people to use computers, concerns that arise in designing and building interfaces, design trade-offs, and the process of specification, design, and implementation of user interfaces. Particular emphasis is placed on practical design and usability of computer system user interfaces.
(3-0-3)

ITM 440
Introduction to Data Networking & the Internet
This course covers current and evolving data network technologies, protocols, network components, and the networks that use them, focusing on the Internet and related LANs. The state of worldwide networking and its evolution will be discussed. This course covers the Internet architecture, organization, and protocols including Ethernet, 802.11, routing, the TCP/UDP/IP suite, DNS, Bluetooth, SNMP, DHCP, and more. Students will be presented with Internet-specific networking tools for searching, testing, debugging, and configuring networks and network-connected host computers. There will be opportunities for network configuration and hands-on use of tools.
(2-2-3)

ITM 441
Network Administration & Operations
Students learn the details, use, and configuration of network applications. Currently protocols and application technologies considered include SNMP, SMTP, IMAP, POP, MIME, BOOTP, DHCP, SAMBA, NFS, AFS, X, HTTP, DNS, NetBIOS, and CIFS/SMB. Windows workgroups and domains: file and printer sharing, remote access, and Windows networking are addressed. A research paper in the above topic areas is required.
Prerequisite(s): [(ITM 440)]
(2-2-3)

ITM 443
Vulnerability Analysis & Control
This course addresses hands-on ethical hacking, penetration testing, detection of malicious probes and their prevention. It provides students with in-depth theoretical and practical knowledge of the vulnerabilities of networks of computers including the networks themselves, operating systems and important applications. Integrated with the lectures are laboratories focusing on the use of open source and freeware tools; students will learn in a closed environment to probe, penetrate and hack other networks. It is recommended, but not required,that students also take ITM 448 prior to or in parallel with this course.
Prerequisite(s): [(ITM 440)]
(2-2-3)

ITM 444
Cloud Computing Technologies
Computing applications hosted on dynamically- scaled virtual resources available as services are considered. Collaborative and non-collaborative "cloud- resident" applications are analyzed with respect to cost, device/location independence, scalability, reliability, security, and sustainability. Commercial and local cloud architectures are examined. A group-based integration of course topics will result in a project employing various cloud computing technologies.
Prerequisite(s): [(ITM 301 and ITM 311)]
(2-2-3)

ITM 448
System & Network Security
Prepares students for a role as a network security analyst and administrator. Topics include hacking, vulnerabilities, and countermeasures; network security protocols, encryption, identity and authentication, scanning, firewalls, security tools, and organizations addressing security. A key component of this course is a self-contained team project.
Prerequisite(s): [(ITM 440)]
(2-2-3) **(C)**

ITM 451
Distributed Workstation System Administration
Students learn to set up and maintain PC workstations and servers and to administer PC servers and networks. Topics include hardware requirements; software compatibility; and system installation, configuration and options and post-installation topics; administrative practices required for file system security; process management; performance monitoring and tuning; storage management; back-up and restoration of data; and disaster recovery and prevention.
Prerequisite(s): [(ITM 301)]
(4-4-6)

ITM 452
Client Server System Administration
Students learn to setup and configure a contemporary operating system, including the actual installation of the operating system on the student workstation in a networked client-server environment. User account management, security, printing, disk configuration, and backup procedures are addressed, with particular attention to coverage of TCP/IP and TCP/IP applications. System installation, configuration and administration issues as well as network file systems, network access and compatibility with other operating systems are also addressed.
Prerequisite(s): [(ITM 302)]
(4-4-6)

ITM 454
Operating System Virtualization
This course will cover technologies allowing multiple instances of operating systems to be run on a single physical system. Concepts addressed will include hypervisors, virtual machines, paravirtualization and virtual appliances. Both server and desktop virtualization will be examined in detail, with brief coverage of storage virtualization and application virtualization. Business benefits, business cases and security implications of virtualization will be discussed. Extensive hands-on assignments and a group project will allow students to gain first-hand experience of this technology.
Prerequisite(s): [(ITM 301) OR (ITM 302)]
(2-2-3)

ITM 455
Intelligent Device Technologies
Intelligent device application development is covered with various technologies on mobile and robotic platforms. Utilizing contemporary toolkits, the student considers design and development on emulated and real "smart" devices including smart phones, personal digital assistants, sensors, actuators, and robots. Numerous exercises reinforce concepts gained throughout the course. A term project will integrate course topics into a comprehensive intelligent device application.
Prerequisite(s): [(ITM 311)]
(2-2-3)

ITM 456
Introduction to Open Source Operating Systems
Students learn to set up and configure an industry-standard open-source operating system, including the actual installation of the operating system on the student workstation. Also addressed are applications and graphical user interfaces as well as support issues for open source software.
Prerequisite(s): [(ITM 302)]
(2-2-3)

ITM 458
Operating System Security
This course will address theoretical concepts of operating system security, security architectures of current operating systems, and details of security implementation using best practices to configure operating systems to industry security standards. Server configuration, system- level firewalls, file system security, logging, anti-virus and anti-spyware measures and other operating system security strategies will be examined.
Prerequisite(s): [(ITM 301) OR (ITM 302)]
(2-2-3)

ITM 460
Fundamentals of Multimedia
Students are introduced to computer-based multimedia theory, concepts, and applications. Topics include desktop publishing, hypermedia, presentation graphics, graphic images, animation, sound, video, multimedia on the World Wide Web and integrated multimedia authoring techniques.
(2-2-3) **(C)**

ITM 461
Internet Technologies & Web Design
This course will cover how the Internet is organized, addressing, routing, DNS, protocols, TCP/IP, SMTP, the use of Internet applications, and the creation of Web pages using HTML and graphical applications. Networked multimedia distribution technologies are also explored. The design of effective Web site including page layout, user interface design, graphic design, content flow and site structure as well as management of Web site resources including intranet management and design considerations are addressed. Students design and create a major Web site with multiple pages and cross-linked structures.
(2-2-3) **(C)**

ITM 462
Web Site Application Development
Programming the Common Gateway Interface (CGI) for Web pages is introduced with emphasis on creation of interfaces to handle HTML form data. CGI programming is taught in multiple languages. Security of Web sites is covered with an emphasis on controlled access sites. Setup, administration and customization of content management systems including blog and portal sites is introduced. Students design and create a Web site including basic CGI programs with Web interfaces and process data flows from online forms with basic database structures.
Prerequisite(s): [(ITM 461)]
(2-2-3) **(C)**

ITM 465
Rich Internet Applications
Students learn to create interactive rich internet applications using web development frameworks, applications, and techniques that primarily operate on the client-side. These applications often exhibit the same characteristics as desktop applications and are typically delivered through a standards-based web browser via a browser plug-in or independently via sandboxes or virtual machines. Current software frameworks used to download, update, verify, and execute these applications are addressed as well as writing applications for deployment in these frameworks.
Prerequisite(s): [(ITM 461)]
(2-2-3)

ITM 466
Service-Oriented Architectures
This course covers IT enterprise systems employing web services technologies in SOA and ESB architectural patterns. The student considers SOA which defines and provisions IT infrastructure and allows for a loosely-coupled data exchange over disparate applications participating in business processes. The simplification of integration and flexible reuse of business components within SOA is greatly furthered by ESB. Lab exercises using contemporary tool-kits are utilized to reinforce platform-agnostic course topics.
Prerequisite(s): [(ITM 461)] AND [(ITM 411)]
(2-2-3)

ITM 469
Topics in Application Development
This course will cover a particular topic in application development, varying from semester to semester, in which there is particular student or staff interest. This course may be taken more than once but only 9 hours of ITM 469 credit may be applied to a degree. Permission of instructor is required.
(Credit: Variable)

ITM 471
Project Management for Information Technology & Management
Basic principles of project management are taught with a particular focus on project planning for information technology hardware, software and networking project implementation. Management of application development and major Web development projects will also be addressed.
(3-0-3) **(C)**

ITM 478
Information System Security Management
In-depth examination of topics in the management of information technology security including access control systems and methodology, business continuity and disaster recovery planning, legal issues in information system security, ethics, computer operations security, physical security and security architecture & models using current standards and models.
(3-0-3) **(C)**

ITM 479
Topics in Information Security
This course will cover a particular topic in Information Security, varying from semester to semester, in which there is particular student or staff interest. This course may be taken more than once but only 9 hours of ITM 479 credit may be applied to a degree. Permission of instructor is required.
(Credit: Variable)

ITM 491
Undergraduate Research
Undergraduate research. Written consent of instructor is required.
(Credit: Variable)

ITM 492
Embedded Systems & Reconfigurable Logic Design
This course covers embedded system design fundamentals. Working with various microcontrollers, microprocessors, and DSPs, the student will discover hardware, software, and firmware design tradeoffs, tool chains, and best practices in current embedded systems development. Laboratory exercise and experience reinforce the lecture concepts. A course project encapsulates all topics culminating in an embedded system designed and implemented from the ground up. The student should be familiar with analog and digital design methods, computer architecture and structured/procedural programming techniques.
(4-4-6)

ITM 495
Topics in ITM
This course will cover a particular topic varying from semester to semester in which there is particular student or staff interest. Permission of instructor is required.
(3-0-3)

ITM 497
Independent Study
Special projects.
(Credit: Variable)

GRADUATE COURSES

Graduate courses are available to degree-seeking undergraduate students with the approval of the course instructor and faculty advisor. See the current ***IIT Bulletin: Graduate Programs*** for full descriptions.

ITM 511
Application Development Methodologies

ITM 518
Coding Security

ITM 521
Client/Server Technologies and Applications

ITM 526
Data Warehousing

ITM 527
Data Analytics

ITM 529
Advanced Data Analytics

ITM 531
Object-Oriented System Analysis, Modeling and Design

ITM 532
UML-Based Software Development

ITM 533
Operating System Design and Implementation

ITM 535
Data Center Architecture

ITM 537
Instructional Technologies

ITM 539
Steganography

ITM 542
Wireless Technologies and Applications

ITM 545
Telecommunications Technology

ITM 546
Telecommunications Over Data Networks

ITM 547
Digital and Voice Communications Projects

ITM 549
System and Network Security: Projects and Advanced Methods

ITM 556
Intelligent Device Projects

ITM 564
Advanced Website Application Development

ITM 572
Process Engineering for IT Managers

ITM 573
Building and Leading Effective Teams

ITM 574
Information Technology Management Frameworks

ITM 575
Networking and Telecommunications Management

ITM 576
Data Center Management

ITM 581
ITM Entrepreneurship

ITM 582
Business Innovation

ITM 585
Legal and Ethical Issues in Information Technology

ITM 586
Information Technology Auditing

ITM 588
Incident Response, Disaster Recovery and Business Continuity

ITM 593
Embedded Systems

Academic Policies and Procedures

Academic Policies and Procedures

Academic Loads

The average full-time academic load during the fall or spring semester is approximately 15 credit hours. The minimum registration required for full-time status for those semesters is 12 credit hours. Full-time degree-seeking students who wish to enroll for more than 18 credit hours or part-time degree-seeking students who wish to enroll in 9 to 11 credit hours must obtain permission from their academic dean.

Students who wish to enroll in more than two courses during the summer term must obtain permission from their academic dean.

Non-degree students requesting a course overload (more than 8 credit hours) must obtain permission from the Office of Undergraduate Academic Affairs.

Academic Program Audit

An academic audit provides a summary of a student's academic status to date and lists the courses to be completed in order to receive a degree. Students can request an official academic audit from the Office of Undergraduate Academic Affairs after they have earned a minimum of 60 semester hours, 90 semester hours for architecture students. Students may request an official academic audit through the Academic Affairs channel in the IIT Portal.

Students may also review academic progress towards their degree through the DegreeWorks channel in the IIT portal.

Academic Progress, Probation, and Dismissal

All students who are degree candidates are expected to maintain satisfactory academic progress. This includes earning satisfactory grade point averages and maintaining a satisfactory rate of progress toward the completion of their degree programs.

Students who do not earn at least a 2.00 cumulative GPA, a 1.85 current GPA, or a 2.00 major GPA are placed on academic probation.

Degree-seeking students are required to maintain a satisfactory rate of progress.

- Full-time students must earn a minimum of 12 credit hours per semester applicable to their degrees.
- Part-time students must maintain a satisfactory rate of progress which will enable them to graduate within 12 academic years after achieving degree-seeking status.

Students who do not maintain a satisfactory rate of progress in a given semester may be placed on probation based on the recommendation from the student's academic advisor, department associate chair, and academic dean. Probation may affect financial aid (see Continued Eligibility for Financial Assistance on page 18).

Students on probation are not permitted to:

- Register for more than 15 credit hours per semester unless they receive approval from the associate dean of their college.
- Hold an elected or appointed office in any student organization. Probation does not affect membership in a student organization.
- Participate in the cooperative education program.

Academic probation may affect a student's eligibility to participate in varsity athletic sports.

Students who are on academic probation for two consecutive semesters are candidates for dismissal from IIT.

The progress of non-degree students also is reviewed and any student who does not maintain good academic standing is subject to being placed on probation or being dismissed.

A student dismissed by the university can petition the Academic Standing Committee to review the dismissal. The student must present substantial academic or other relevant new evidence not available at the time of dismissal in support of the petition for reinstatement. The chair of the Academic Standing Committee will determine whether the new documentation warrants a further review of the case.

Advising

Each undergraduate student is assigned a faculty academic advisor who is available to discuss opportunities and career plans in the student's chosen field and to plan and approve coursework to meet departmental and university requirements. Students are urged to consult their advisors when questions arise.

Departmental associate chairs and advisors in the Office of Undergraduate Academic Affairs are also available to answer questions and interpret policies regarding university requirements and academic procedures.

Change of Major or Declaration of Additional Majors

Students considering either a change of major or concurrently pursuing a second undergraduate degree should consult the departmental associate chair regarding program requirements and career opportunities in the new degree program.

Students may also review requirements for the new degree program by performing a "What If" audit using DegreeWorks. Students may access the DegreeWorks channel through the IIT portal.

An advisor in the Office of Undergraduate Academic Affairs can also assist a student in the selection of a suitable major. A student who wishes to change or declare a major or concurrently pursue an additional undergraduate degree program must obtain a Change of Major form from the Office of Undergraduate Academic Affairs or at **www.iit.edu/ugaa**. Approval from the intended major department is required.

Change of Status

Students who wish to change a classification and/or registration status must complete the applicable procedures listed below no later than two weeks prior to registration (or pre-registration).

- Students changing from full-time degree-seeking status to part-time degree-seeking status must notify the Office of Financial Aid if they are receiving financial aid. International students with student visas must be registered as full-time students and are not permitted to change to part-time status.
- Students changing from part-time degree-seeking status to full-time degree-seeking status who wish to apply for financial aid must notify the Office of Financial Aid regarding their change of status.
- Students changing from non-degree status to full-time or part-time degree-seeking status must submit a new application for admission to the Office of Undergraduate Admission. Students must have completed at least one semester of relevant coursework at IIT and must be in academic good standing in order to be eligible for changing their status.
- Students changing from graduate status to undergraduate full-time or part-time status must submit an application for admission to the Office of Undergraduate Admission.

Code of Academic Honesty

IIT expects students to maintain high standards of academic integrity. Students preparing for the practice of a profession are expected to conform to a code of integrity and ethical standards commensurate with the high expectations society places on practitioners of a learned profession. No student may seek to gain an unfair advantage over another. The Code of Academic Honesty is explained in the IIT Student Handbook and all students are expected to know and adhere to this code.

Credit by Examination

Credit may be earned through one or more of the following examination procedures. Total credit from proficiency examinations and CLEP may not exceed 18 semester hours. There is no limit for advanced placement credit.

Advanced Placement Program

Students who take the AP examinations need to have their official scores sent to IIT. Acceptable credit varies by subject and score.

See **www.iit.edu/ugaa** for a list of AP examinations and IIT equivalencies.

College Level Examination Program (CLEP)

For these examinations, which are administered by the College Entrance Examination Board, IIT will award credit under the following conditions:

- The CLEP examination and the score achieved meet the standards of the IIT department that offers courses in the area of the examination.
- The CLEP examination is taken before the student enters IIT.
- Students must observe all rules of the College Level Examination Program regarding the taking of CLEP examinations.

NOTE: Previous acceptance of the examination by another institution does not imply acceptance by IIT.

Proficiency Examinations

Any student who believes that, through self-study or outside experience, he or she has gained the substantive equivalent of the content of a specific course may ask for an examination. With the approval of the chair of the department offering the course and the Office of Undergraduate Academic Affairs, a proficiency examination will be administered. This is a graded exam and the letter grade will be entered on the permanent record. Proficiency examinations are not allowed for courses in which the student has previously enrolled and must be completed before a student's final 45 semester hours of enrollment at IIT. The Credit by Examination Form may be obtained in the Office of the Registrar and a per-credit-hour fee is charged for each examination.

Dean's List

Every semester the names of all undergraduate students who have completed at least 12 graded hours with a semester grade point average of 3.50 or better appear on the Dean's List.

Grades

Grade	Grade Description	Instructor Assigned	Performance Evaluated	Attempted Hours	Earned hours	Quality Points	Quality Hours	GPA Hours	FinAid Hours
A	excellent	✓	✓	✓	✓	4.00	✓	✓	✓
B	above average	✓	✓	✓	✓	3.00	✓	✓	✓
C	average	✓	✓	✓	✓	2.00	✓	✓	✓
D	below average	✓	✓	✓	✓	1.00	✓	✓	✓
E	fail	✓	✓	✓		0.00	✓	✓	✓
I	incomplete	✓		✓		0.00			✓
R	research	✓		✓		0.00			✓
NA	non-attendance	✓		✓		0.00			✓
S	satisfactory	✓	✓	✓		0.00			✓
U	unsatisfactory	✓	✓	✓		0.00			✓
AU	audit					0.00			
W	withdrawal*			✓		0.00			
X	no grade submitted			✓		0.00			
NG	non-graded					0.00			

* Student Initiated

Grade Notes

X Temporary administrative grade automatically applied to blank grade rosters at grading deadline.

AU Grade basis elected by student at point of registration. A *Request to Audit Form* must be submitted at the time of registration and courses may not be changed to or from audit after registration. There is no credit given for an audited course. Regular tuition rates apply.

I This temporary grade requested in writing of instructor, by student, prior to week of finals, is posted by the instructor when regular grades are posted. The student must have substantial equity in the course with no more than four weeks of coursework remaining to be completed. The written agreement between the student and instructor must detail the remaining requirements to complete the course. A grade of I will be assigned only in case of illness or for unusual or unforeseeable circumstances that were not encountered by other students in the class and that prevent the student from completing the course requirements by the end of the semester. Grade of I will automatically change to E on the published deadline of the subsequent term.

R Temporary grade indicating course work is scheduled to extend beyond the end of term. Grade of R has same impact as I until final letter grade is submitted. Does not expire or change to another grade.

NA Apparent withdrawal due to non-attendance.

W Permanent administrative grade automatically applied when student withdraws before deadline (60% of term). Grade of W does not affect GPA. No credit hours are awarded for a grade of W.

NG Grade basis for a course in which no evaluation is recorded. Permanent administrative grade automatically applied.

Grading Procedure

Online submission of final grades are due on the published deadline following final exams. Grades of X are posted for all missing (blank) grades at that time and are resolved through the grade change process. All grade changes are initiated by the instructor of record or authorized academic officer. Current temporary grades of I, R, and X can be changed by the instructor directly with the Registrar's Office to a final letter grade of: A, B, C, D, E or S/U, or if the class has a pass/fail grading basis of satisfactory/unsatisfactory. Temporary grades of I or R cannot be changed to another temporary or a non-letter, administrative grade of: I, R, NA, AU, W, or X. Other grade changes may require an additional level of approval by an academic officer or appeals committee. Changes to final grades cannot be made once a degree has been posted for the career in which the course was taken, or in the case of a student's voluntary separation from the University.

Grade Point Average

The grade point average (GPA) is determined by dividing the total number of grade points earned by the total number of graded semester hours. Graded semester hours include courses graded A, B, C, D, and E. All courses taken at IIT apply to the cumulative GPA, including those that do not apply toward graduation.

Repeating Courses for a Grade Change

Undergraduate students may repeat a course for a change of grade. A request to repeat a course for a change of grade must be submitted through DegreeWorks, the online degree audit system, during registration. Both grades will be recorded on all transcripts issued. Only the second grade will be used to compute the GPA, even if the second grade is lower, except when the second grade is I, R, S, U, W, X, or AU. The course repeat policy is as follows:

- A course repeated for a grade change must be taken within one calendar year after initial enrollment in that course or the next time it is offered (whichever is longer).
- The same course may be repeated only once for a change of grade.
- No more than three courses may be repeated for a grade change in a student's career.
- Re-registration for courses in which a student received a passing grade requires the approval of the student's academic advisor and academic dean.
- If a course is no longer offered by the university, the provision to repeat the course for a grade change does not apply.

Graduate Course Enrollment Approval

An undergraduate degree-seeking student who wishes to enroll in a graduate 500-level course must first obtain written approval from the course instructor and faculty advisor stating that the student is qualified. This approval must be presented at the time of registration. An undergraduate non-degree student may be allowed to enroll in a graduate 500-level course in certain instances, but will require the permission of the Office of Undergraduate Academic Affairs. All undergraduate students who enroll in graduate courses are governed by the graduate grading system for those courses.

Graduation Requirements

Every student is responsible for fulfilling graduation requirements as specified in the IIT Bulletin in effect at the time of his or her admission to IIT. If those curriculum requirements change before the student completes a specified degree program, he or she may follow a curriculum in a subsequent IIT Bulletin with the approval of his or her academic unit head. When an earlier curriculum is no longer available, the individual degree program of a student who has been following this earlier curriculum will be modified by his or her academic unit head.

The student has the ultimate responsibility to fulfill degree requirements, to attain eligibility to enroll in particular courses, and to comply with all applicable academic rules governing his or her academic program.

NOTE: Students must file an Application for Graduation Form with the Office of Undergraduate Academic Affairs at the beginning of the semester in which they plan to graduate. Failure to do so may result in the postponement of the student's graduation. Please refer to the IIT calendar on page 3 for specific deadlines.

Undergraduate students must complete:

- All required courses in their major program
- Credit hour requirements as appropriate to their major (a minimum of 126 hours)
- General education and special academic requirements as shown on page 25
- Residence requirements as outlined on page 261
- A minimum cumulative grade point average of 2.00 and a minimum grade point average of 2.00 in the student's major department courses. A student who completes all course requirements with an average below the minimum grade point requirements may, with permission of his or her department chair and academic dean, take additional courses to raise the grade point average
- Completion of all the above within a period of eight calendar years from the semester of initial admission for full-time students or twelve calendar years for part-time students after achieving degree-seeking status. A student may petition their major department and academic dean to have this period extended. If the petition is approved, this extension may involve additional compensating academic requirements
- Payment of all financial obligations to the university

All incomplete coursework must be submitted to the instructor prior to the date of graduation. A recorded grade of I (incomplete) in a course required for graduation will result in deferral of that student's graduation until the next semester. A new application for graduation must be submitted for that semester.

Graduation with Honors

A student must complete a minimum of 60 graded semester hours at IIT in order to receive the award of "summa cum laude", "magna cum laude", or "cum laude". A student who has a grade point average of 3.90 and higher will graduate with "summa cum laude" honors; a student who has a grade point average between 3.80-3.89 will graduate with "magna cum laude" honors; and a student who has a grade point average between 3.50-3.79 will graduate with "cum laude" honors.

Leave of Absence

Undergraduate degree-seeking students who wish to withdraw from the university with the intention of returning to complete their degree program may apply for a Leave of Absence. All requests for a Leave of Absence begin with the Office of Undergraduate Academic Affairs. This designation cannot exceed one academic year, however, it may be extended if the proper documentation is submitted.

Students on a medical Leave of Absence may be required to contact the Counseling Center and submit documentation relating to treatment prior to resuming their studies.

International students must comply with additional regulations when requesting a Leave of Absence. See **www.iit.edu/∼internat** for additional details.

The leave of Absence policy is explained in more detail in the IIT Student Handbook.

Return from Leave

Students wishing to Return from Leave should contact the Office of Undergraduate Academic Affairs (**ugaa@iit.edu**) to begin the process. Students who have been away from IIT for more than 2 years will be processed for Readmission by the Office of Undergraduate Admission. The request for Return from Leave and all supporting documents must be submitted prior to the deadline specified on the IIT Calendar (see page 3).

Students must submit official transcripts from all colleges and universities attended since last enrolled at IIT. In some cases, additional interviews may be required to process a Return from Leave or Readmission.

International students must contact the International Center in addition to submitting a request to return from leave. See **www.iit.edu/∼internat**.

Registration

Registration and Class Attendance

Students are required to be registered for all classes in which they participate, attend and/or submit coursework for evaluation. No credit will be granted for any course for which the student did not properly register before the last day to add a class for the semester. Students are required to be registered to make use of university facilities. Students who are in an exchange, study abroad or cooperative education program also must be registered for their particular programs.

All students are expected to attend classes regularly. Excessive absences may be grounds for a failing grade. Nonattendance does not constitute an official withdrawal. When illness or emergency requires a student to miss more than two days of class, the student must notify the course instructor. It is also recommended that the student contact the Dean of Students and the Director of Undergraduate Advising.

Registration Appointments

Undergraduate students are allowed to register for an upcoming term based on their student classification. Appointment dates to begin registration are assigned on a priority basis to fifth-year undergraduates on the first day of registration, fifth- and fourth- year undergraduates on the second day of registration, and so on. Open registration begins once first-year students are allowed to register on the fifth day of the registration period

Registration Holds and Controls

Students with unpaid balances, disciplinary sanctions, unmet immunization requirements, or other such conditions to warrant a registration hold are prevented from enrolling in classes until the condition is resolved and the hold is removed.

Registration controls including prerequisites, corequisites, maximum hours, level, and program restrictions may also exist to limit or prevent registration in specific circumstances. Students should consult their advisor, resolve all holds and take note of any registration restrictions that pertain to their student status and course selection, prior to their appointed registration date for an upcoming term.

For more information, go to **www.iit.edu/registrar/registration_tools**.

Residence Requirements

All undergraduate degree-seeking students must observe the following residence requirements:

- Once enrolled at IIT, a student is not permitted to enroll at another institution without obtaining permission. A student must submit an academic petition to the Office of Undergraduate Academic Affairs for approval prior to registration at another institution.
- A course failed at IIT must be repeated at IIT. No transfer credit will be awarded for any course equivalent to a course failed at IIT.
- The final 45 semester hours of work must be completed in residence at IIT. Any proficiency examinations or enrollment at another institution must be completed before this period.
- A student must complete a minimum of 45 semester hours at IIT in order to be eligible for a bachelor's degree from IIT.

Second Bachelor's Degree

A student whose first degree is granted by IIT must complete a minimum of 15 additional credit hours at IIT. A student whose first degree was awarded by another institution must complete a minimum of 45 additional credit hours at IIT. All other graduation requirements apply for the second degree. The GPA required for "summa cum laude", "magna cum laude", and "cum laude" for the second degree includes all IIT coursework.

Student Academic Petitions

A student may request a review of decisions concerning academic status or regulations by submitting an academic petition to the Office of Undergraduate Academic Affairs. Students who wish to take a course at another institution during the summer must submit an academic petition to the Office of Undergraduate Academic Affairs prior to the registration at another institution to guarantee transfer of credit according to guidelines on page 12.

Student Classification

The following table describes classifications for undergraduate students currently in effect at Illinois Institute of Technology. Classification is based on total earned hours in a student's undergraduate career.

Classification	*Earned Hours*
First-Year Undergraduate (U1)	0 - 29.9
Second-Year Undergraduate (U2)	30 - 59.9
Third-Year Undergraduate (U3)	60 - 89.9
Fourth-Year Undergraduate (U4)	90 - 130.9
Fifth-Year Undergraduate (U5+)	131+

Transcripts

Official Transcripts are requested through the Office of the Registrar and are only released with the expressed consent and authorization of the student, in compliance with (FERPA) the Family Educational Rights and Privacy Act of 1974. The secured document is certified as of the printing date and is not valid if altered in any way or opened by someone other than the intended recipient. Official Transcripts are released only after the student has fulfilled all financial obligations to the university. Official Transcripts issued directly to the student making the request are stamped "ISSUED TO STUDENT". A fee is charged for each transcript issued.

Withdrawal from the University

Undergraduate degree-seeking students who withdraw from all of their courses are in effect withdrawing from the university. Non-attendance does not imply withdrawal. All requests for withdrawal begin with the Office of Undergraduate Academic Affairs which will provide assistance with the successful resolution of all outstanding obligations to the university.

International Students must comply with additional regulations when withdrawing from the university. See **www.iit.edu/∼internat**.

Any undergraduate student who is not in attendance for a semester must apply for reinstatement in the Office of Undergraduate Academic Affairs.

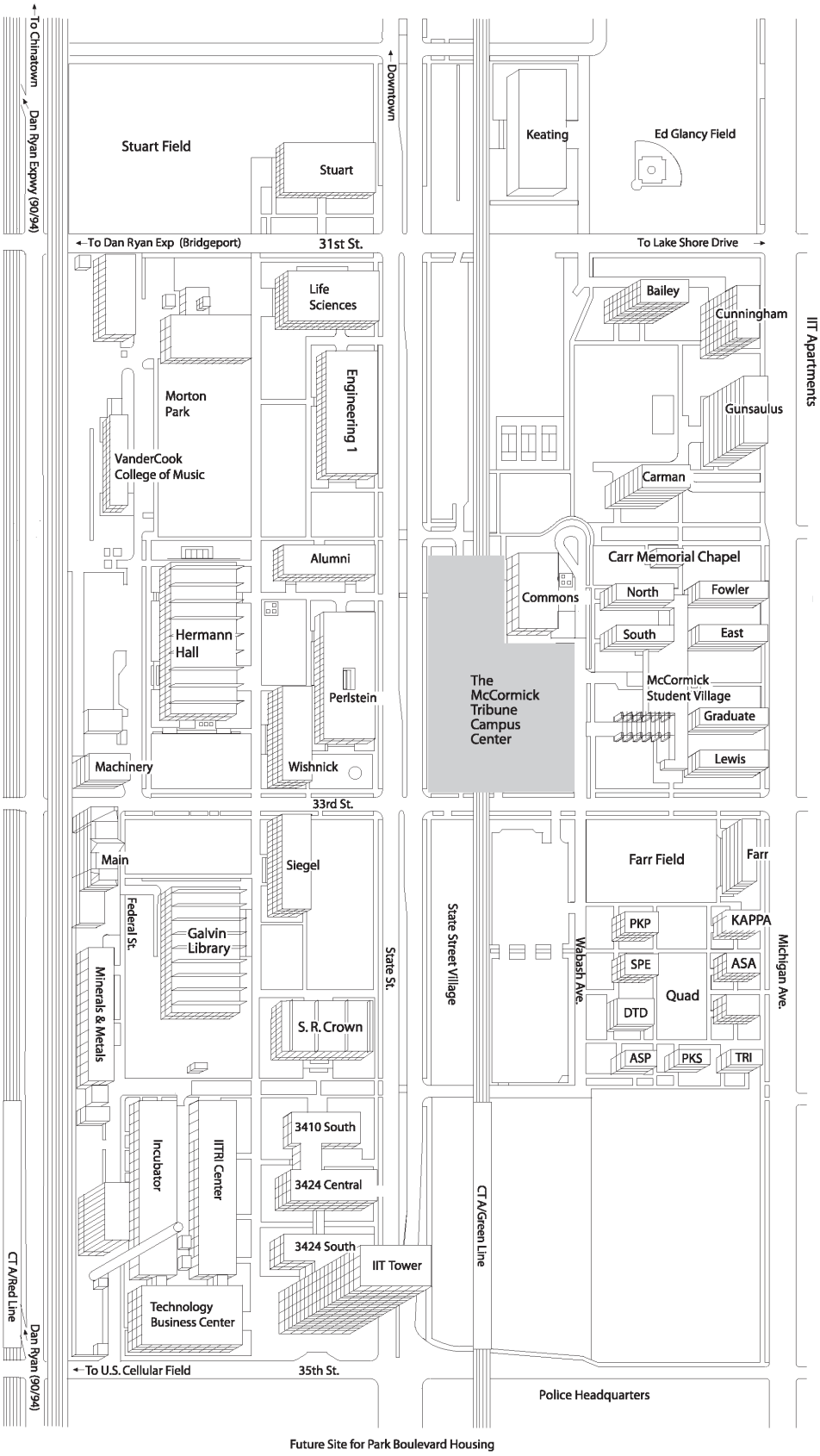
Reinstatement and Readmission

Students who have withdrawn and now wish to return to IIT should contact the Office of Undergraduate Academic Affairs (**ugaa@iit.edu**) to begin the process. Students who have been away from IIT for more than 2 years will be processed for Readmission by the Office of Undergraduate Admission. The request for Reinstatement or Readmission must be submitted prior to the deadline specified on the IIT Calendar (see page 3).

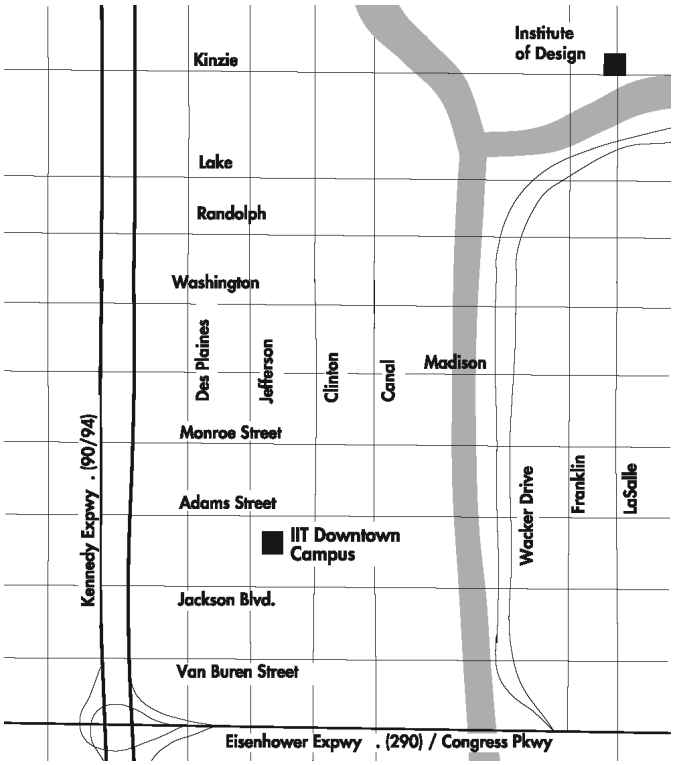
Students must submit official transcripts from all colleges and universities attended since last enrolled at IIT. In some cases, additional interviews may be required for Reinstatement/Readmission.

International students must contact the International Center in addition to submitting an application for Reinstatement/Readmission. See **www.iit.edu/∼internat** for more information.

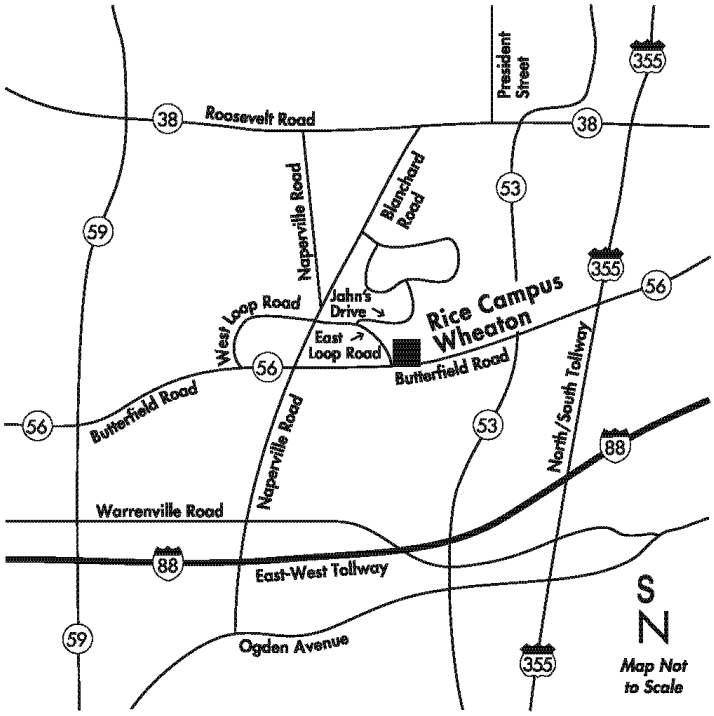
Main Campus


To Chinatown
Dan Ryan Expwy (90/94)
Downtown
Stuart Field
Stuart
Keating
Ed Glancy Field
To Dan Ryan Exp (Bridgeport)
31st St.
To Lake Shore Drive
Life Sciences
Engineering 1
Morton Park
VanderCook College of Music
Bailey
Cunningham
Gunsaulus
Carman
IIT Apartments
Alumni
Carr Memorial Chapel
Commons
North
Fowler
South
East
Hermann Hall
Perlstein
The McCormick Tribune Campus Center
McCormick Student Village
Graduate
Lewis
Machinery
Wishnick
33rd St.
Main
Siegel
Farr Field
Farr
Federal St.
Galvin Library
State St.
State Street Village
Wabash Ave.
PKP
KAPPA
SPE
ASA
Quad
DTD
Michigan Ave.
Minerals & Metals
S. R. Crown
ASP
PKS
TRI
3410 South
Incubator
IITRI Center
3424 Central
CTA/Green Line
3424 South
IIT Tower
Technology Business Center
CTA/Red Line
Dan Ryan (90/94)
To U.S. Cellular Field
35th St.
Police Headquarters
Future Site for Park Boulevard Housing

Downtown Campus and Institute of Design



Rice Campus



Getting to the Main Campus

Airports

IIT and Chicago are served by O'Hare International Airport and Midway Airport. Public and private transportation is available from the airports to downtown Chicago and IIT campuses.

Train

Commuter railroads to Union and Northwestern train stations (both off Canal Street), then public transportation, taxi or IIT shuttle bus from the Downtown Campus at 565 W. Adams Street to Main Campus.

Bus

To Greyhound terminal, then taxi or public transportation to IIT.

Public Transportation

1. CTA Red Line (Howard-Dan Ryan) to 35th Street Station.

2. CTA Green Line (Lake-Englewood-Jackson Park) to 35-Bronzeville-IIT station.

3. CTA bus lines with stops on State Street (#29) or Michigan Avenue (#35).

Automobile

From North: Dan Ryan Expressway east to 31st Street exit, continue south to 33rd Street, turn left (east) to just past State Street. Visitor parking is on the right (south-east corner).

From South: Dan Ryan Expressway west to 35th Street exit, continue north to 33rd Street, turn right (east) to just past State Street. Visitor parking is on the right (southeast corner).

From Lake Shore Drive: Exit at 31st Street, go inland (west) to State Street, turn left (south) to 33rd Street, turn left and visitor parking is on the right (southeast corner).

Parking

Some visitor parking is available in lots at the southeast corner of 33rd and State streets and the northeast corner of 31st and State streets. By special arrangement, events parking is usually available in the fraternity lot at 33rd and Wabash and, for evening events, in the lot west of Hermann Union Building. A few hourly spaces are available just south of the Commons Building and west of Hermann Union Building. Please call the Public Safety Department at 312.808.6300 if you need assistance in finding parking.