Information Technology & Management Mission

Educate and inform students to prepare them to assume technical and managerial leadership in the information technology field.

About the Department of Information Technology & Management

Courses from our department are available at Illinois Tech’s Chicago Mies Campus live or via videoconferencing, at remote locations via IITV and the Internet, and on rare occasions at our Rice Campus in Wheaton. Courses are offered on a semester basis with the fall semester beginning in late August and the Spring semester beginning in mid-January. Because of the strong hands-on emphasis of these programs, many courses will include a laboratory or laboratory exercises. Lecture courses normally will meet two days a week for 75 minutes each session, or once a week for 150 minutes. Lab courses normally will meet two days a week for 100 minutes each session, or once a week for 200 minutes. We have many adjunct faculty members who work each day in the discipline they are teaching, so many course offerings are in the evening or on Saturday morning when they are available to teach. To meet the needs of full-time students, we offer as many daytime classes as possible, and in most cases these courses will be available online for part-time students. Lecture-only evening courses normally run 6:25pm to 9:05pm one day each week. Evening courses with laboratories will normally run from 3:35pm to 9:05pm one day each week.

Course Philosophy

Information Technology & Management courses are a careful blend of theory and practical application.

- **Applications:** A core goal of the Department of Information Technology & Management is to teach you practical, hands-on, applied knowledge that can lead to immediate employment in the information technology field. To this end, ITM courses will teach the latest applications and tools used in the field, maximizing your opportunities to make hands-on use of these application and tools. In many instances courses will be tracked to existing industry certification requirements, giving immediate employment credibility to course content. Course tracking will be to vendor-neutral certifications to the greatest extent possible but this does not preclude the teaching of vendor-specific material when appropriate.

- **Theory:** While the stress of courses in the Department of Information Technology & Management is principally practical, given the scope and rapidity of change within the information technology industry a solid grounding in theory is necessary to equip you to cope with the emergence of new technologies and to advance in your career in the field. A good grounding in theory is necessary to meet the goals of a university education, equipping you with critical thinking skills and the ability to see beyond “plug-and-chug” solutions all too commonly found in information technology training courses. This allows you to reason out solutions to problems rather than relying on canned solutions and blind adherence to procedure.

Program Objectives & Outcomes

**Bachelor of Information Technology & Management Objectives**

The Bachelor of Information Technology and Management degree produces graduates who are able to:

- **Problem solve and create innovative answers to provide technology solutions for the problems of business, industry, government, non-profit organizations, and individuals.**

- **Perform requirements analysis, design and administration of computer and network-based systems conforming to policy and best practices, and monitor and support continuing development of relevant policy and best practices as appropriate.**

- **Apply current technical and mathematical concepts and practices in the core information technologies and recognize the need to engage in continuing professional development.**
Bachelor of Science in Applied Cybersecurity and Information Technology Objectives

The Bachelor of Science in Applied Cybersecurity and Information Technology degree produces graduates who are able to:

- Problem solve, create, and effectively communicate innovative answers to provide technology solutions for the problems of business, industry, government, non-profit organizations, and individuals.
- Perform requirements analysis, design and administration of computer and network-based systems conforming to policy and best practices, and monitor and support continuing development of relevant policy and best practices as appropriate.
- Design and implement an enterprise security program using both policy and technology to implement technical, operational, and managerial controls, which will technically secure enterprise information assets and resources to deter, detect, and prevent the success of attacks and intrusions.
- Investigate information security incidents and violation of law using computer resources in a manner such that all evidence is admissible in a court of law.
- Apply current technical and mathematical concepts and practices in the core information technologies and recognize the need to engage in continuing professional development.

Bachelor of Information Technology & Management Student Outcomes

Bachelor of Information Technology and Management graduates should be able to:

(a) Analyze a problem and identify and define the computing requirements appropriate to its solution.
(b) Design, implement, and evaluate a computer-based solution to meet a given set of computing requirements.
(c) Communicate effectively with a range of audiences about technical information.
(d) Make informed judgments in computing practice based on legal and ethical principles.
(e) Function effectively on teams to establish goals, plan tasks, meet deadlines, manage risk, and produce deliverables.
(f) Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
(g) Assist in the creation of an effective project plan.

Bachelor of Science in Applied Cybersecurity and Information Technology Student Outcomes

Bachelor of Science in Applied Cybersecurity and Information Technology graduates should be able to:

(a) Analyze a problem and identify and define the computing requirements appropriate to its solution.
(b) Design, implement, and evaluate a computer-based solution to meet a given set of computing requirements.
(c) Communicate effectively with a range of audiences about technical information.
(d) Make informed judgments in computing practice based on legal and ethical principles.
(e) Function effectively on teams to establish goals, plan tasks, meet deadlines, manage risk, and produce deliverables.
(f) Identify and analyze user needs and take them into account in the selection, integration, evaluation, and administration of computer-based systems.
(g) Apply security principles and practices to the environment, hardware, software, and human aspects of a system.
(h) Analyze and evaluate systems with respect to maintaining operations in the presence of risks and threats.

Undergraduate and Graduate Bulletins

Specific requirements for completion of your degree are in the applicable university bulletin. In most cases the bulletin in force in the year you entered the program governs your curriculum. Illinois Tech bulletins are published annually online only at http://bulletin.iit.edu/. The ITM Undergraduate Bulletin is at http://bulletin.iit.edu/undergraduate/colleges/applied-technology/information-technology-management-school-applied-technology/.

Graduate Course Differentiation

When courses are offered with both undergraduate and graduate students enrolled in common lecture and/or lab meetings, expectations, outcomes, assignments, and grading standards will be differentiated within the courses to reflect the higher level of achievement expected of graduate students. In accordance with expectations of our university accrediting agency, there must be a clear differentiation between undergraduate and graduate work in these cross-listed courses as described below.

- **Course Numbering:** Some courses are offered with both undergraduate and graduate sections sharing the same classroom instruction and instructor; this is reflected by the fact that the course will have both a 4XX and a corresponding 5XX section numbers. As an example, ITMO 440 has a corresponding ITMO 540 course offering. Graduate students may not enroll in any 4XX course except as a prerequisite.
- **Syllabus:** Undergraduate and graduate sections shall each have their own syllabus even when taught in the same lectures. These will reflect differences in course outcomes, learning objectives, and assignments.
- **Assignments:** Identical assignments for graduate and undergraduate students in a cross-listed course may be assigned, and may be graded to different standards for graduate students reflecting higher expectations. Undergraduate students enrolled in the undergraduate sections of cross-listed courses are not expected or required to bear a graduate-level assignment workload.
Faculty Office Hours

Faculty members will be available to you outside of class.

- **Full-Time Faculty**: Full-time faculty members and adjunct faculty members who are full-time Illinois Tech employees will establish and publish/post reasonable office hours. Office hours and location must be given on any course web sites or Blackboard and office hours should be posted prominently on the faculty members’ office door. The location and times of office hours should match the location (Rice Campus or Mies Campus) and times (that evening) of the course. Faculty members should be present in their office for all posted office hours. When teaching a course that includes part-time students, faculty members should accommodate them by having some office hours on evenings and/or weekends. Additionally, faculty members must be available via email or other electronic means.

- **Adjunct Faculty**: Adjunct faculty members should maintain one to two hours of physical presence office hours if possible, and must be available via email or other electronic means. They may keep virtual office hours via a chat application or instant messaging, but must ensure all students understand clearly how to contact them if this is their office hour method. Adjunct faculty members who are Illinois Tech staff members may elect to hold office hours in the office assigned to them for their staff position.

Communications

The Department of Information Technology and Management has several paths to communicate with students.

- **Illinois Tech Email**: Your official hawk.iit.edu email address is the primary method of communication between the ITM Department and you. It is important that you check your email often, and any requests from you to advisers or faculty members should come from your university email address. If we receive email from you from another address, you can expect that any response will go to your iit.edu email address, or that faculty members may not respond.

- **ITM Weekly Newsletter**: Any announcements, news and calendar events from the ITM Department will be published in our weekly newsletter which will be sent to your iit.edu email every Friday during the fall and spring semesters, and occasionally during the summer term.

- **ITM Loopback Blog**: Important announcements, news and calendar events from the ITM Department as well as IT industry news will appear on the ITM blog, [http://blogs.iit.edu/itm_loopback/](http://blogs.iit.edu/itm_loopback/). Student bloggers are welcome as well; if you would like to blog on Loopback, please contact Ray Trygstad, trygstad@iit.edu or 630.447.9009.

- **The ITM Facebook Group**: [https://www.facebook.com/ITMatIIT/](https://www.facebook.com/ITMatIIT/).

Academic Honesty

As you study in our program, you will be required to submit research papers, programs, labs, quizzes and examinations. These works are very important because they are the metric—the measurement—of our ability to impart knowledge and information to you; and of your ability learn, recall and apply this knowledge and information. If you do not submit work that is your own work, we have no way to measure the success of our efforts to educate you. If you are not being academically honest—if you are cheating, you are not allowing us to adequately measure our success—or your success. Our single largest problem in the Information Technology and Management program is with research papers. Many students in our program have come from other nations where secondary school and undergraduate programs never required completion of research papers, but the ability to research a topic and present the results of that research in a research paper is absolutely required in graduate education in the United States. If this is not a skill you already possess, you must learn it to be a success in our program.

We have had reports of students boasting to employers during Curricular Practical Training that they “got through” our program by cheating. To us, this seems to be just stupid: why would you boast about being dishonest? Frankly we are very upset by this as it is completely unfair to the students who study and work hard in our program, and we are taking every step to be sure that *no one* who cheats repeatedly in our program will receive a degree from Illinois Tech.

- **Plagiarism**: The code of conduct governing writing by students at Illinois Tech requires original writing, prohibits plagiarism and provides severe sanctions for plagiarism. Original writing consists of thinking through ideas and expressing them in your own way. Plagiarism is submitting written material that contains words that are directly quoted without placing the quotation in quotation marks or that is a paraphrase that is set off from your text and is not accompanied by a citation of the source. It can also be a statement of a fact that is not regarded as “common knowledge” without citation of the source. Every single sentence or clause that you directly quote and every fact that is not common knowledge that you cite must have a properly formatted citation in the text AND a related entry in your bibliography. The presence of one sentence or substantial phrase in your submitted work that is a direct quote and does not have the source properly cited and included in your bibliography is automatically plagiarism. Submitting the words of others as your own work is cheating and will not be tolerated in our program.

- **Writing Assistance**: Often students will find material online and cut and paste this material directly into work they submit with no citation. The main reason we find that students do this is a lack of confidence in their ability to express their thoughts well in written material. We would far prefer to see a student’s own ideas—no matter how poorly expressed—than seeing someone else’s ideas written well! If you are at Illinois Tech’s Mies Campus, there is a Writing Center, [http://www.iit.edu/csl/hum/resources/writing_center.shtml](http://www.iit.edu/csl/hum/resources/writing_center.shtml), and the staff there will go over your paper with you line by line to help you with your grammar and use of language. They are there to help you learn to write better by explaining each correction to you as they are made. In addition, research librarians in Galvin Library are there to assist you in ensuring that your citations and bibliography are correctly formatted; it is their job to assist you and you should not hesitate to ask them.

- **Time Pressure and Research**: Another reason students will plagiarize is that they are pressed for time and need to assemble a research paper in a very short period of time. The solution to this problem is very, very simple but represents a level of self-discipline many students have difficulty with: students need to start their research and writing with enough time to do a thorough and complete job in their own words.
standards of the university, the faculty member involved should take the following steps:

When an Information Technology and Management student is found to be in violation of the academic honesty requirements, the student will be assigned a grade of zero for the assignment, quiz or exam on which the violation has occurred until the situation has been discussed with the students involved.

Faculty members will normally consider unseparated or unreferenced text that others have written to be plagiarism. Mosaic plagiarism is sometimes caused by careless note taking. However, it looks dishonest and is judged as such. The use of quotation marks around the original wording and citation avoids the problem of plagiarism. Often a better approach is to use full paraphrasing or to quote directly—with appropriate citations.

### Quoting and Referencing Material

- **Quoting and Referencing Material:** Ultimately we expect that any course work that you submit will contain your own words and not the words of others. You must be scrupulous about separating and referencing the words of others. Faculty members will normally consider unseparated or unreferenced text that others have written to be plagiarism.

- **Citations:** Plagiarism can be avoided by providing citations for the sources of any material, including ideas, phrases, or sentences that you have used in your paper. A number of different systems are available for providing citations. The key to all of them is that the writer must clearly identify for the reader the sources of all material (including ideas) that have come from somewhere else. If you wish to use the words of others, in most cases you may if you do two things:
  - Separate the words of others from those of your own. For one or two lines, place the words in quotation marks or for longer passages quote or indent the words using different font styles.
  - Properly reference the words. See the reference information provided in the Paper Format document for your course, or in the “Writing Research Papers” section of this handbook on page 17 below.

- **String Quotation Problem:** Sometimes a student will write a paper consisting of a string of quotations. It is usually much better for a student to provide his or her own analysis and write the paper in his or her own words. Many professors will reject a paper consisting primarily of material quoted from other sources because they do not view such a paper as the student’s own work. Due to this, many instructors may limit the amount of material that you may quote directly in an assignment. If no guidance is present, as a general rule properly attributed quoted material should not exceed 33% of the content of your paper.

- **Collaboration/Copying:** Some students in our program have found themselves pressured by classmates to give them answers to problems and assignments for courses they have already completed. This is also clearly cheating—it is dishonest and is unacceptable; students who give out this information are equally guilty of academic dishonesty as are those who ask for this information. If you are asked to do this the only acceptable answer is to just say NO. It benefits neither you nor the students who are copying your answers.

- **Sharing of Completed Course Work Online:** You cannot share answers to problems, coding assignments, other course assignments, quizzes, or examinations on any web site. If we are made aware of gradable/graded material from departmental courses being posted on sites such as coursehero.com, we will work with the site to determine the identity of the submitter and will treat the offense with the same gravity as a second Academic Honesty Violation.

- **Acknowledgment:** In addition to the above brief discussion, each student must read and ensure you understand both the Code of Academic Honesty in the The Illinois Institute of Technology Student Handbook at [http://www.iit.edu/student_affairs/handbook/information_and_regulations/code_of_academic_honesty.shtml](http://www.iit.edu/student_affairs/handbook/information_and_regulations/code_of_academic_honesty.shtml) and the Information Technology and Management Policy on Academic Honesty Violations below. You must understand that if you commit academic dishonesty—if you cheat—there will be consequences. You will be punished. At a minimum you will be assigned a grade of zero for the assignment; if it is a second offense you will be given a failing grade for the class and lose our approval for participation in Curricular Practical Training (CPT) and/or Co-op/Internship programs. On a third offense, we will recommend that you be expelled from the university.

### INFORMATION TECHNOLOGY AND MANAGEMENT POLICY ON ACADEMIC HONESTY VIOLATIONS

#### Sanctions for Information Technology and Management students

When an Information Technology and Management student is found to be in violation of the academic honesty standards of the university, the faculty member involved should take the following steps:

1. **Identical or Substantively Identical Work:** If duplicate work is encountered when grading an item, assign a grade of zero for the assignment, quiz or exam on which the violation has occurred until the situation has been discussed with the students involved.
   a. Discuss the situation with all students involved.
   b. If one student admits to having copied the work, or if there is clear evidence who is guilty, assign the guilty student a grade of zero and grant full credit to student who did the work.
   c. If no one admits to the offense or a reasonable determination of guilt cannot be made, assign each student involved a grade of zero.
2. **Plagiarism:** If a submitted item contains unattributed material that is not a student’s own work, assign a grade of zero for the assignment, quiz or exam on which the violation has occurred.

3. **Sharing of Completed Work Online:** This will automatically be treated with the same sanctions as a second Academic Honesty Violation.

4. In any case, submit an Academic Honesty Violation Report to the ITM Program Manager, Amber Chatellier, PH 223, oachatell@iit.edu, 312.567.5277.

5. If notified by the ITM Associate Chair that the violation is a second offense, expel the student from the course and assign a punitive failing grade.

When the ITM Program Manager is notified of a student violation of the academic honesty standards of the university, the Program Manager will take the following steps:

1. Determine if the violation is a first, second or third offense by consulting the student’s ITM Department file and notify the ITM Associate Chair for undergraduate students.

2. If the violation is a first offense, the ITM Associate Chair will notify the Dean of the School of Applied Technology and the Vice Provost for Academic Affairs, and place a notation of the violation in the student’s ITM Department file.

3. If the violation is a second offense or is sharing of completed course work online, the ITM Associate Chair will notify the Dean of the School of Applied Technology and the Vice Provost for Academic Affairs; notify the faculty member who should expel the student from the course and assign a punitive failing grade; notify the Career Management Center and the International Office that the Department of Information Technology and Management’s approval for the student’s participation in Curricular Practical Training (CPT) and/or Co-op/Internship programs has been withdrawn for the current and next semesters; and place a notation of the violation in the student’s ITM Department file.

4. If the violation is a third offense, the ITM Associate Chair will perform the same steps as for a second offense and notify the Dean of the School of Applied Technology that this is a third offense. The Dean will then recommend to the Vice Provost for Academic Affairs that the student be expelled from the university.

**Program and Course Prerequisites**

Prerequisites for courses and degree programs may be fulfilled through prior college course work, industry certifications or experience, or credit by examination.

- **Waiver of Prerequisites Based on Certification or Experience:** Program or course prerequisites may be waived based on industry certifications or significant experience. This waiver can be granted for courses by advisers, course instructors of the course the prerequisite is required for, or the ITM Associate Chair, Ray Trygstad. See below for credit by examination information.

**Credit by Examination**

Credit by examination may be granted for any course as per current university policy as found in the Undergraduate Bulletin at [http://bulletin.iit.edu/undergraduate/academic-policies-procedures/credit-by-examination/](http://bulletin.iit.edu/undergraduate/academic-policies-procedures/credit-by-examination/). Undergraduates—especially transfer students—should take note that any credit granted by examination must be completed prior to beginning the last 45 hours of coursework for your degree.

- **Credit by Examination and Industry Certifications:** Industry certifications may be used as the examination for credit by examination, but this credit will not normally be granted after the end of the first semester of studies in a degree. Many industry certifications may fulfill course requirements; while we recognize their value and applaud students who hold them, we cannot at this time grant graduate course credit for Cisco certifications. If you have industry certifications that you believe may fulfill course requirements, contact the ITM Associate Chair, Ray Trygstad (trygstad@iit.edu) or 630.447.9009, for evaluation of your certification.

- **Administration of Examinations for Credit by Examination:** A student desiring to complete a course through credit by examination will complete the Credit by Examination form by logging into MyIIT to access the form at [http://my.iit.edu/iit/Registrar/tools_guide/pdf/credit_by_proficiency_exam_form.pdf](http://my.iit.edu/iit/Registrar/tools_guide/pdf/credit_by_proficiency_exam_form.pdf), make their payment, and bring the form to the instructor for the applicable course. The instructor may administer the midterm (if applicable) and final examinations from the most recent offering of the class, or may administer an oral examination, to verify that the student possesses an adequate level of knowledge to complete the course. Upon completion of the examination, the instructor will assign a grade on the form; if the student does NOT possess the necessary level of knowledge a failing grade will be assigned. After assigning the grade and signing the form the instructor must return the form in person to Amber Chatellier or Angela Jarka at the Mies Campus. Once a student hands the instructor the form, the student may not possess or handle the form again.

- **Credit for Proficiency for Continuing Education Unit (CEU) awarded coursework:** Credit by Proficiency may be granted for coursework in the IT or INT courses of the Information Technology and International Certificate Programs as outlined in Grading of CEU Students below, requiring a grade of “C” or better for undergraduate credit in undergraduate level courses and “B” or better for graduate credit in graduate level courses based on the final letter grade given for the CEU coursework. If a particular section of a course is offered at both undergraduate and graduate levels, students must complete the graduate level coursework to receive graduate credit. Meeting with your program manager of the Office of Professional Development (OPD) at the beginning of each semester will help ensure proper level selection in coursework. The Credit by Proficiency process also begins with the student meeting with the appropriate program manager of OPD.

Successful completion of courses in IT or INT may always be considered as credential for admission even if no academic credit may be awarded. There is no Credit by Proficiency awarded for English Language courses.
**English Proficiency**

Good written and spoken English skills are essential for students completing our degrees. If you find you are seriously deficient in either area, please seek help, as we have a lot of resources available to assist you. If we allow you to complete our degree with unacceptable language skills, we are doing both the you and the department a disservice. We have a great infrastructure right in our own college to assist non-native speaking students with their English skills through Professional Development's ESL programs, but we have to know you are having difficulty to help you. Native English speakers with seriously deficient skills are much harder to assist and we need to identify your issues very early on if we are going to help you.

- Students who have low scores on the Test of English as a Foreign Language (TOEFL), those who are not required to complete the TOEFL but do not have English as their first language, or who have very weak scores on the GRE Verbal may be required to complete an English assessment examination. Based on the outcome of the assessment, students may be required to enroll in and successfully complete one or more Proficiency of English as a Second Language (PESL) courses.
- Assistance is available for written and oral assignments at the Illinois Tech Writing Center, located in Siegel Hall, Rooms 232–233. Tutors are available during the fall and spring semesters to assist all Illinois Tech students, free of charge. The Writing Center provides individual, 30–minute meetings for students. They can assist you with any stage in the writing process, from brainstorming and outlining to final touches and reference sheets, as well as issues such as grammar, punctuation, and spelling. Faculty members who see that you are having difficulty may refer you using their referral form at [https://humansciences.iit.edu/sites/humanscience/files/elements/humanities/pdfs/iit_writing_center.pdf](https://humansciences.iit.edu/sites/humanscience/files/elements/humanities/pdfs/iit_writing_center.pdf). For more information, please see [https://humansciences.iit.edu/humanities/writing-center](https://humansciences.iit.edu/humanities/writing-center).

**Syllabus**

Instructors must provide a detailed syllabus for students delineating the objectives of the course which should also detail specific learning objectives for each lesson. The content and objectives must substantially match those found in the official course outline or departmental syllabus if one has been provided by the ITM Department. A detailed syllabus with clearly stated learning objectives is a necessity for the ongoing success and academic validity of our program.

- **Syllabus Content:** You can expect a course syllabus will cover expected outcomes and learning objectives for the course; topics covered in the class; homework assignments; projects; exams; grading policies; and a clear policy on handling late assignments/projects and academic irregularities.
  - The syllabus is a contract between your instructor and you, and must be treated as such. If your instructor changes the topics in your course, or your assignments, or any other significant facet of the course, they should issue a revised syllabus reflecting these changes. You are expected to know and understand what is in the syllabus.
  - The syllabus must include a grading discussion which must address two things: a breakdown of how letter grades relate to percentage grades or points, and how much weight is carried by each category of graded material. It is required that both of these be in writing and be included in the syllabus. This protects both you and your instructor from ambiguity.
  - All grading in the ITM Department, to the maximum extent possible, must be evidence-based grading. This means wherever possible, you instructor should provide you with a rubric clearly spelling out what aspects of an assignment will be graded and what standards will be applied to each graded area to determine if the work is excellent, good, adequate, poor or unsatisfactory.

**Grading**

Suggested (not required) grading standards for undergraduate and undergraduate-level CEU students:

- **A** Outstanding work reflecting substantial effort.................................................................90-100%
- **B** Excellent work reflecting good effort.............................................................................80-89.99%
- **C** Adequate work meeting minimum expected requirements...........................................70-79.99%
- **D** Substandard work not meeting reasonable expectations..................................................60-69.99%
- **E** Unsatisfactory work (Fail)..............................................................................................0-59.99%

There is no grade of **F** for undergraduate-level coursework for CEU students. This grading standard also applies to English Language courses.

- **Assignments:** Assignment in this context includes all work submitted by students to fulfill course requirements except for exams, and typically includes lab reports, research papers, projects, programs, homework and quizzes. Every course must include a minimum of one graded assignment with grades returned to students before the final day to withdraw from the course. Multiple assignments for a course must be reasonably spread over the course of a semester and each must have a due date and a final late acceptance date; these may be the same date. In-class reviews of assignments may not be held until after the final late acceptance date. No course may have all course assignments due at the end of the semester. In order to better facilitate the use of rubrics and other tools for assessment, all assignment submissions should be via Blackboard. Submissions may be a link to a code repository such as Github, or to a web location, but should still be submitted via Blackboard for record purposes.

- **Examinations:** Every course must have a final examination. Examinations may be in class or take-home; in-class examinations may be open- or closed-book. For courses where it is appropriate, the final examination may be a final project or research paper presentation. However, all instructors must give one closed-book, closed-note exam.
Submission of Grades: Your instructors will submit grades for all courses online; the exact day and time for grade submission will vary as per the Illinois Tech Academic Calendar. Your grade will normally appear on your unofficial transcript by the end of the term; consult the academic calendar for the exact date. A grade of “W” will appear for the course on your transcript. This grade does not apply to your grade after the final grade calculations for the term have been made. This is to prevent extra credit from being administered online. It is the policy of both the university (implicit) and the department (explicit) that in-class final examinations may not be administered before the scheduled time and date. If you are in an online section, you should schedule exam proctoring with IIT Online, but do not expect the exam to be administered before the scheduled time and date.

Grading of Continuing Education Unit (CEU) students: The actual grades submitted online for CEU students will be either a P for “passing” or an F for “failing” or NA for “non-attend.” Actual letter grades for all CEU students will be submitted at the Office of Professional Development (OPD) to keep on record to be used for credit by proficiency (see information on Credit by Proficiency above). CEU students must complete all course assignments and examinations to receive a letter grade. If a letter grade of “C” or better for undergraduates or “B” or better for graduate students is not received, the course may not be transferred into a degree program at Illinois Institute of Technology through Credit by Proficiency. CEU students who attend at least 80% of classes, participate actively in the classroom, and who submit a course evaluation, will be assigned a grade of “P” if all course requirements are completed and a minimum letter grade of “D” is earned.

Attendance: Class attendance is expected of all students enrolled in live (i.e. not online) sections of a class. At the instructor’s discretion, students in live sections who do not attend class may be penalized in a class participation component of the course grade; this should be explained explicitly in the course syllabus. Faculty members are required to take attendance in all 100- and 200-level courses and may always elect to take attendance in any course. CEU students are required to attend course sessions unless specifically notified by the Office of Professional Development that online attendance is sufficient; at least 80% of classes must be attended live.

Extensions for Completion of Courses: Students may be assigned a grade of “I” (incomplete) if the student requests it, all requirements for assignment of an “I” are met, in the instructor’s opinion there is a valid reason for an extension of time to complete their coursework, and the Department grants approval. A grade of “I” will be assigned only in case of illness or for unusual or unforeseeable circumstances that that prevent the student from completing the course requirements by the end of the term. You must apply to the instructor in writing for a grade of incomplete, using the request form at http://www.itm.iit.edu/incomplete/. You may not seek an incomplete before the last day to withdraw from the course and must request a grade of incomplete prior to final examination week. If the instructor approves it, your request will be forwarded to the Registrar’s Office for final approval. You must meet the university Academic and Department Regulations requirement that students have “substantial equity” in the course and the written agreement between the you and the instructor must detail the remaining requirements to complete the course. Grades of “I” will automatically lapse to “E” on the published deadline of the subsequent term. Please bear in mind that the only acceptable reasons for an “I” are either illness or unusual/unforeseeable circumstances. The fact that you may have fallen behind in course work when neither of these situations exists is NOT adequate cause to award an incomplete. In these cases you can expect to be awarded the grade you have earned in the class. In the case of CEU students, no letter grade will be submitted until the course is completed. Instructors must grant CEU students extensions for course completion when directed by the Office of Professional Development, and may grant extensions for other reasons as well with permission of the Office of Professional Development. If CEU students have completed the requirements for a “P” grade they should be assigned that grade even if the letter grade is otherwise an “I”.

Withdrawal from a Course: If you determine that you will be unable to complete a course with a passing grade, it is advisable to withdraw from the course rather than have the failing grade appear on your transcript, and your instructor may advise you to do so. The deadline for withdrawal is normally six weeks prior to the end of the term; consult the academic calendar (https://web.iit.edu/registrar/academic-calender) for the current term for the exact date. A grade of “W” will appear for the course on your transcript. This grade does not apply toward your GPA and no credit is awarded for the course. If you are a part time student, payment is still required for the course. If you are a full-time student and you drop below twelve credit hours for the term by withdrawing, you will be on academic probation the following term due to failure to make adequate academic progress; generally this is still preferable to receiving a failing grade in a course. If you have been ill or have other mitigating circumstances that have prevented you from submitting your work in the final few weeks of the course, please discuss this with the instructor before you withdraw; if you present a good case, at the instructor’s discretion you may be granted an extension to complete the course (see above).

Not Attending: If you stop attending class, at the mid-term you may be assigned a grade of “NA” (not attending). If you receive a grade of “NA,” you should discuss the situation with your instructor to determine if you can successfully complete the course with a passing grade. If you cannot, you should withdraw from the course (see above). If you continue to fail to attend, at the end of the term you will be assigned a failing grade of “E.”

Extra Credit: If a faculty member desires to allow you to earn extra credit in a course, the extra credit must be applied to your grade after the final grade calculations for the term have been made. This is to prevent extra credit points from “skewing the curve” or otherwise penalizing students who elected not to do the extra credit assignment(s). Policies for awarding of extra credit should be explicitly stated in the course syllabus. If there is no policy for extra credit included in the course syllabus you cannot expect an instructor to grant extra credit.
Retention of Graded Examinations: Faculty members may elect to retain your examinations after they have been submitted and graded, or they may return them to you, but in all cases they must allow you an opportunity to review your graded examination upon request. If faculty members elect to retain graded examinations, they must then retain them for three years following the completion of the course. See the discussion on Student Intellectual Property below for a discussion of other retention of coursework.

Appeal of Final Grades: Grades you have earned based on your work in a course are final. If the minimum score to earn a grade of A in a course is 90% and you have earned a score of 89.97%, your grade is a B. If you are unhappy with the grade you have earned at the end of the term, pleading with the instructor will probably be a waste of both your time and the instructor’s time. You cannot do additional work after a grade has been submitted to change your grade.

If you want to appeal a letter grade assigned in a course, you should first confer directly with your course instructor. If you and the instructor cannot come to an agreement, you should contact the Associate Chair of the Department. If necessary, you can appeal to the Dean of the School of Applied Technology. Appeal of a final course grade should be initiated within two weeks of the end of the term.

Classroom Conduct
You must conduct yourself in a professional manner showing courtesy to the instructor & your fellow students.

- Professional conduct includes participation in group activities and discussions. Making an active, positive contribution may help a class participation grade and will improve not only your experience, but also the experience of the entire group.
- Unless required to accommodate a student disability, please turn off cell phone ringers and other distracting electronic devices and leave them off while class is in session. If the instructor requests that you not use notebook PCs, tablets, or smartphones while in class, you need to respect that request and comply. Failure to comply may be reflected in your class participation grade.
- You may use voice or video recording devices in lectures as long as their use does not disrupt class proceedings.
- If you are late to class, please enter the classroom and take a seat as quietly as possible.
- You should not engage in conversations while an instructor, lecturer, or fellow student is speaking.
- If a class exceeds seventy-five minutes, there will generally be a break in the middle of each meeting of the class; please return from the break promptly and be in your seat at the appointed time.
- Please use restraint and good judgment when bringing food and drink items into the classroom.

Course Evaluations
Your evaluations of our courses are considered to be a critical component in the continuous improvement of our program offerings. Course evaluation results are reviewed by senior academic administration as well as the departmental staff as just one component of the normal administrative review of instructor performance. The evaluation data and comments will also be available for review by each instructor (after grades have been submitted) to help improve the course. Evaluations are completely anonymous and confidential; evaluation results and comments are available to the instructor only without identifying information.

- Submission of ITM course evaluations: Course evaluations are made available under your Academics tab in the MyIIT portal. Evaluations are conducted the last two weeks prior to the exam week of each academic semester, and you won’t be able to access evaluations after Sunday night prior to exams. Constructive feedback from you is very important to us, both positive and negative, and your submission will be completely anonymous and confidential. Please complete your evaluations to help us improve our program; they really are important to us.
- Submission of CEU student course evaluations: CEU students will not be awarded Continuing Education Units (CEUs) without submitting a properly completed course evaluation. Evaluations will be completed during the last two weeks of the course prior to any final examination. The Office of Professional Development will provide you with specific instructions as to how to complete and submit your evaluations. If you have questions about course evaluations for CEU students, please contact the Office of Professional Development at 312.567.5282.

Course Assessments
In order to ensure that you, our students, are attaining the outcomes that we have established for our degrees and for each course that we offer towards your degree, we have established a formal assessment process. Assessments may be conducted by evaluating assignments in the course to measure attainment of outcomes using a rubric, by surveys of the students in the course, and by surveys of the faculty member teaching the course. Between three and seven courses are assessed each term. Assessments create a baseline that we can measure against for evidence of improvement, and allow us to identify flaws, shortcomings, and issues with courses to support a process of continuous improvement. Assessments and the process of continuous improvement they facilitate are an important facet of ITM program accreditation by the Computing Accreditation Commission of ABET and university accreditation by the Higher Learning Commission.

Course Assessment Surveys: These surveys are conducted by ITM Department staff during the final weeks of each course being assessed. The surveys ask you to evaluate how well you have achieved each of the course and program outcomes covered in the course. Please take the surveys seriously as they are very important to the ongoing process of improving what we do to ensure we are delivering the best possible education to you our students. Please ensure that you are present in class for the surveys.
Student Intellectual Property

As a general rule, intellectual property created and submitted in fulfillment of assignments in the Information Technology and Management degree remains the intellectual property of the student; if no license is included, the assignments are copyrighted under the Berne Copyright Convention and distribution is subject to international and national copyright law. This means that there may be no redistribution or re-use of the material submitted in fulfillment of assignments without the express consent of the copyright owner—the student. Additional policies for student intellectual property can be found in the university Student Handbook, Chapter III, Policies and Procedures, at https://web.itm.iit.edu/student-affairs/handbook/fine-print/policies-regulations-and-procedures. Because it is necessary to maintain files of student work for normal administrative and pedagogical purposes, such as accreditation requirements, the Department of Information Technology and Management hereby gives notice of its desire to secure a non-exclusive, perpetual, royalty-free license solely to use, at its discretion, student-created work produced in all courses offered by the department, with appropriate attribution, for its own non-commercial and educational purposes, including to promote the programs of the academic unit. Unless the student submits a written notice to the Dean of the School of Applied Technology indicating that he or she does not agree to grant such a license by the last regularly scheduled day of the course, then the student shall be deemed to have granted the foregoing described license. The university owns both questions and answers on tests and examinations, unless otherwise indicated by the course instructor. There are too many possible variations on how intellectual property may be handled for full inclusion here, but in general the following policies will apply.

- **Requests for Assignments of Rights:** As many student projects are ongoing from term to term, faculty members may request an assignment of rights for re-use or redistribution of student work from students, but students are not expected or required to assign any rights, and the refusal to assign rights may not be prejudicial to the student in any way. To ensure any consent granted for re-use or redistribution of any student work is clearly unequivocal, such rights must be granted in writing by the copyright owner. Suggested formats for assignments of rights may be found at http://www.itm.iit.edu/resources/licensing.php.

- **Software Licensing:** While it is not required, students are strongly encouraged to license academic programing assignments under an applicable Open Source license. This is in line with the academic traditions of openness and sharing that have created Linux and the Internet. The preferred license for ITM student use is the MIT License. Alternative licenses could be the GNU General Public License (GPL) or any one of a variety of other Open Source licenses. Suggested formats for software licensing may be found at http://www.itm.iit.edu/resources/licensing.php.

- **Other Intellectual Property Licensing:** Again, while it is not required, students are strongly encouraged to license research papers and other academic coursework under licenses that allow some sharing of the material such as a Creative Commons license. With a Creative Commons license, you keep your copyright but allow people to copy and distribute your work provided they give you credit—and only under specific conditions that you specify. For detail on licensing under Creative Commons, see http://creativecommons.org/license/.

- **Public Domain:** Students may explicitly place any coursework in the public domain by placing a comment in their code or text that reads: *This <software/text/etc.> is placed in the Public Domain by the author, <student name>, <date>*. This indicates intent only and may not be legally binding in any or all jurisdictions. The use of Creative Commons CC0 licensing is normally the best option from a legal perspective.

Degree Specializations

The Bachelor of Information Technology and Management offers seven specializations. These specializations are intended to prepare you for particular roles in the IT working world, but there is no requirement that you complete a specialization for graduation. Instead you can elect to tailor a course of study that meets your specific needs. If you do elect to complete a specialization, you must complete a sequence of courses within the specialization as outlined in the Undergraduate Bulletin at http://bulletin.iit.edu/undergraduate/colleges/applied-technology/information-technology-management-school-applied-technology/bachelor-information-technology-management/#specializationtext. Your adviser will determine if you have completed a specialization and will also authorize any substitution of courses toward the specialization. Completion of a specialization should be indicated by an annotation on your transcript and may be recognized by a document issued by the School of Applied Technology.

Minors

Undergraduate Bachelor of Information Technology and Management students are required to complete a minor, which at Illinois Tech consist of 15 hours or more of study in a single or multidisciplinary subject outside of your major. Students completing a minor may want to consider minors which complement their primary program of study; these include (but are not limited to) Industrial Technology and Management; Communication; Business; Information Architecture; Software Engineering; and Telecommunications. Alternatively, students may which to minor in an area completely dissimilar—such as Philosophy, Music, or Urban Affairs—to make them a more well-rounded and better educated individual. Any course you take to fulfill a minor requirement may not also be used as an elective in the ITM major although some limited overlap with general education requirements may be possible. Please refer to the Undergraduate Bulletin at http://bulletin.iit.edu/undergraduate/undergraduate-education/minors/ for detailed information as well as for the list of available minors. There is no form required to declare a minor; you need only notify Undergraduate Academic Affairs of your minor when you request an audit of academic programs and when you fill out an application for graduation form. If you want to declare a minor not already listed as approved, you must confer with your adviser to determine the necessary steps to gain permission.

- ROTC students may minor in Military Science, Naval Science, or Air Force Aerospace Studies as appropriate.
- Minor requirements are normally waived for students transferring in or changing majors with 30 or more hours of credit.

Co-Terminal Degree Program

Undergraduates in Information Technology and Management degrees can complete a graduate degree simultaneously with their undergraduate degree, while maintaining their undergraduate status (and
undergraduate financial aid!) In most normal circumstances, students can complete both degrees in five years of study, or in three years for transfer students. To be apply for the Co-Terminal Degree Program, students must:

- be a full-time Undergraduate student at Illinois Tech
- have completed at least 3 semesters as a full-time Undergraduate student or have 60 or more credit hours of Undergraduate course-work.
- have a minimum Undergraduate GPA of 3.25. This means that transfer students may not apply until during their second term at Illinois Tech and cannot commence their graduate studies until their third term.

Degree combinations currently available under this program are:

- Bachelor of Information Technology and Management → Master of Information Technology and Management
- Bachelor of Information Technology and Management → Master of Cyber Forensics and Security

Co-terminal degree options for the Bachelor of Science in Applied Cybersecurity and Information Technology degree are being developed; watch the weekly ITM Newsletter for announcements when this process is complete.

A course matrix showing a sample program of study for each option is on pages 22 and 23 of this handbook. Note that three graduate courses are counted towards both the undergraduate and graduate degrees; these courses double-count as ITM undergraduate electives.

To apply for the program, log in to the my.iit.edu portal, select the Academics tab and navigate to the Undergraduate Academic Affairs – Student channel, then select the “IIT Co-Terminal Degree Program Application” hyperlink. For more details please see the Co-Terminal Degree information page at http://web.iit.edu/goa/co-terminal-degrees. For questions specific to the ITM Department, contact the ITM Associate Chair, Ray Trygstad, trygstad@iit.edu or 630.447.9009.

- Co-Terminal Degree Students: Students admitted as a co-terminal graduate student should carefully read the ITM Graduate Student Handbook http://www.itm.iit.edu/data/ITMGraduateStudentHandbook.pdf, and the ITM section of the Graduate Bulletin http://bulletin.iit.edu/graduate/. In addition to their Undergraduate Adviser, co-terminal students will be assigned a Graduate Adviser who will be responsible for oversight of their graduate studies including approval of their specialization and any course substitutions. Co-terminal students must still contact their Undergraduate Adviser each term to complete undergraduate advising and to receive their registration PIN and permits to register for their 500-level courses.

**Advising**

Each student enrolled in our program is assigned an academic adviser. The role of your adviser is to assist you in monitoring progress toward graduation by fulfilling degree requirements; helping you select courses that meet your individual goals and career objectives; ensuring you take an appropriate, balanced load of technical and non-technical courses each semester while meeting all course prerequisites; and dealing with problems such as the need to drop a course, academic probation, and so on. Please see your adviser for academic problems you encounter that you don’t know how to resolve. See the paragraph above for additional details for advising of students enrolled in the co-terminal graduate degree programs. Our Director of Undergraduate Advising and primary undergraduate adviser is Ray Trygstad, trygstad@iit.edu or 630.447.9009. Undergraduate transfer students generally will be advised by Jeremy Hajek, hajek@iit.edu or 630.296.4012.

- **Transfer Course Evaluation:** Your undergraduate adviser will evaluate information technology and related courses for transfer as required or elective ITM courses. You may be requested to provide a course description or a syllabus to verify content of courses to be transferred.
- **Pre-Registration Advising:** In order to register for classes, you must complete pre-registration advising with your adviser. A face-to-face meeting during office hours or through an appointment at other times is preferred, but if absolutely necessary, advising can be done by phone or email. This is your adviser’s opportunity to monitor your academic progress, discuss with you how you are doing, and ensure you are registering for appropriate courses for the upcoming term. The adviser will then issue you your Alternate PIN number which will allow you to register for the term. Your adviser must also enter a permit to allow you to register for courses in any of the following categories:
  - Online (Internet) course sections—you will see a “level restriction” error if you try to register for an online section of a course without a permit
  - Graduate (500-level) courses
  - Any course for which a prerequisite is waived

**Undergraduate Advising Notes**

- **Term Planning:**
  - For planning purposes ITMO 444, ITMS 443, & ITMS 478 are normally offered only in the Fall term, and ITM 485 & ITMO 454 are normally offered only in the Spring term. This is subject to change without notice.
  - **Minors:** All students entering the Bachelor of Information Technology and Management degree as first-year students or with less than 30 hours of credit are required to complete a minor; see the paragraph above for more details.
  - **Overloading:** Undergraduates may register for a maximum of 18 credit hours per semester. To register for more than 18 credit hours, undergraduates must request permission to overload from the Dean of the School of Applied Technology via their Undergraduate Adviser. **Note:** ROTC courses do not count towards the maximum of 18 hours. **Registration Holds:** Advisers cannot remove registration holds, but they can tell you who placed the hold and who to contact to have it lifted.
- **ITM Undergraduate General Education Notes:**
  - CS115 and CS 116 or CS 201 may be substituted for ITM 311 with permission of your adviser.
  - All students entering Information Technology and Management degrees as Freshmen are strongly encouraged to take EG 225 Engineering Graphics and PSYCH 301 Industrial Psychology as part of their Illinois Tech Core Curriculum requirements. While not expected of students who do not enter the curriculum as freshmen, all ITM undergraduates are encouraged to take these courses.
Illinois Tech’s Core Curriculum Requirements summary with ITM notes indicated in sans-serif type:

**✓ Writing and Communications:**
- **English Proficiency:** Pass the IIT English Proficiency Examination or pass a composition course at Illinois Tech. **Note:** Or transfer in an acceptable composition course.
- **Communication (C) Courses:** Complete a minimum of 36 credit hours of courses with a significant written and oral communication component, identified with a (C) in the bulletin, with minimums of 12 hours in major courses and 12 hours in non-major courses. Full-time students should enroll in two (C) courses, and part-time students should enroll in one (C) course each academic year. **Notes:** All ITM undergraduates are required to take 9 hours of ITM (C) courses: ITMD 361, ITMS 448, ITMM 471. BITM undergraduates must additionally take one of the following ITM elective courses to meet this general education requirement: ITMD 460, ITMD 462, ITMM 470, ITMM 485, or ITMS 478.

**✓ Mathematics:** 5 to 20 credit hours
- **Note:** BITM Students are required to complete Discrete Mathematics, MATH 180 or MATH 230, and a statistics course. BUS 221, Statistics for Managerial Decision Making is recommended, but acceptable alternatives include PSYC 203 or MATH 425. For transfer students, mathematics courses equivalent to MATH 180 or MATH 230 Discrete Mathematics and a statistics course satisfy this requirement.

Bachelor of Science students are required to complete MATH 151, Calculus I; MATH 152, Calculus II, MATH 230, Introduction to Discrete Math; MATH 251, Multivariate and Vector Calculus; and MATH 474, Probability and Statistics.

**✓ Computer Science:** 2 credit hours.
- CS 105, 115, 116, 201, ARCH 125, ITM 311 or a computer science course at the 200-level or above. **Note:** ITM undergraduates do NOT need to take a CS course to meet this requirement.

**✓ Humanities and Social or Behavioral Sciences:** 21 credit hours
- **Note:** Humanities or Social Science courses transferred from community colleges are normally at the 100- or 200-level unless they are intermediate or advanced foreign language courses.
- **Humanities:** a minimum of nine credit hours of courses marked with an (H) in the bulletin.
  - **Note:** Subjects include AAH, HIST, HUM, LIT, PHIL and some (but not all) COM.
    - At least one (H) 100- or 200-level course.
    - At least two (H) courses at the 300-level or above. Students may use foreign language courses at the 200-level to fulfill 300-level requirements.
    - Foreign language classes can be taken to fulfill the Humanities requirements as long as they are at the 200-level or above.
  - **Note:** One (H) course MUST be at the 100- or 200-level.
- **Social or Behavioral Sciences:** a minimum of nine credit hours of courses marked with an (S) in the bulletin; subjects include ANTH, ECON, PS, PSYC, and SOC.
  - At least two (S) courses on the 300-level or above for students matriculating Fall 2015 or later; one 300-level (S) course for students who started their degree before fall 2015.
  - Courses from at least two different fields.
  - At least six credits in a single field.
  - **Note:** There is no requirement that any of the (S) courses be at the 100- or 200-level but two courses MUST be from the same field. PSYC 301, Industrial Psychology, is strongly recommended for ITM undergraduates. SSCI courses count as prerequisites for upper-level PS, SOC or SSCI courses.

**✓ Natural Science or Engineering:** 10 credit hours
Courses in engineering, biology, chemistry and physics, or by courses in architecture and psychology marked with an (N). Students completing less than 6 hours of Math must complete 11 hours of (N) courses.
- Two sequential natural science or engineering courses in a single field.
- **Note:** We recommend two sequential courses in Engineering Graphics (EG) for ITM students if possible. EG 225 is strongly recommended.
- At least one natural science or engineering course in a second area.
- **Note:** We recommend PHYS 200 Introduction to Energy, Waves, Materials, and Forces and/or PHYS 120 Astronomy.

**✓ Introduction to the Profession (ITP):** 2 credit hours minimum; 3 credit hours in ITM
- In most departments, students must complete this requirement in their first year. **(Not in ITM.)** Students entering with 30 credit hours or more of transfer credit may have this requirement waived with department approval. **(Not in ITM.)**
- **Note:** The ITP ITP course is offered in the fall semester of students’ second year. The ITP requirement will not be waived for students transferring into or changing majors to ITM.

**✓ Interprofessional Projects (IPRO):** 6 credit hours
- Students will participate in at least two Interprofessional Project experiences
- **Note:** May be waived for part-time students who are employed full-time. See below for details.

◆ **Advisee Responsibilities:** Your responsibilities as an advisee include:
  ✶ **Know and Interface with your Adviser:** Familiarize yourself with your primary and secondary adviser. Meet with your adviser on a regular basis, once a semester at a minimum, to discuss courses and career plans.
  ✶ **Take Control:** As much as possible, take control of your education by learning about, understanding and complying with your program’s and specialization’s requirements. Be familiar with program resources such as
Independent Study

Undergraduates may request independent study with a faculty member for subjects not covered in courses offerings, or research that expands their knowledge and abilities. The faculty member will issue a permit to register for ITM 497, Independent Study, or ITMT 491, Undergraduate Research, for between one and six hours of study as applicable. Full-time faculty may schedule students for ITM 497 or ITMT 491 as the faculty member’s schedule allows. Faculty members receive no additional compensation for independent study or research, so adjunct faculty members are under no obligation to do so and their participation is entirely voluntary.

Proposals and Outcomes: Students must have a permit to register for research or independent study issued by the faculty member. You must prepare and submit a written research prospectus, proposal, or abstract of material to be studied to the faculty member before they issue you a permit to register. The prospectus, proposal, or abstract must include clearly defined objectives and learning outcomes. The faculty member will work with the student as necessary to refine this document to their mutual satisfaction. Outcomes of ITMT 491 or ITM 497 may include a formal project or presentation of research results and should include a paper documenting the project or research.
Interprofessional Projects (IPROs)

Our Interprofessional Projects are core to what makes an IIT undergraduate education unique. An IPRO course is a team-based learning environment in which students from various concentrations and disciplines work together to solve a real-world problem. Although there is an introductory IPRO, IPRO 397, students may elect to take two IPRO 497 project courses. Each IPRO project has a course number of IPRO 497 and they are differentiated by section number. These courses are an Illinois Tech general education requirement, and all undergraduates must complete at least two three-credit-hour IPRO project courses. Students completing an ROTC minor are exempt from one of the two IPRO requirements. See http://ipro.iit.edu/ for full details on IPROs.

- **Waiver of the IPRO Requirement:** Waivers of the IPRO course requirement (not the semester hour requirement) will be considered on a case-by-case basis for part-time students who are employed full-time. The written request for a waiver must be submitted to Undergraduate Academic Affairs. The request must include a resume and documentation of work experience that developed communication and leadership skills, as well as an awareness of economic, marketing, ethical and social issues within the framework of a multidisciplinary team project. This documentation must be verified by the employer. If the request is reasonable, it will be forwarded for approval to the ITM department and the Associate Provost for Academic Affairs. The department will also determine appropriate course substitutions.

Recognition of Academic Achievement

**Dean’s List:** The names of all undergraduate students who have completed at least 12 graded hours in a semester and who have a semester grade point average of 3.50 or better appear on the Dean’s List. Dean’s List certificates may be picked up from the ITM Assistant Department Manager in Perlstein Hall room 223.

**Graduation Honors:** To graduate with honors, eligible undergraduate students must complete a minimum of 60 graded semester hours in residency at Illinois Tech. Honors are awarded in three levels and are recognized with ropes to be worn with the cap and gown at commencement.

- **Summa cum laude (with highest praise):** GPA of 3.900 – 4.000; commencement recognition is a gold rope
- **Magna cum laude (with great praise):** GPA between 3.800 – 3.899; commencement recognition is a silver rope
- **Cum laude (with praise):** GPA between 3.500 – 3.799; commencement recognition is a white rope

**Gamma Nu Eta (ΓΝΗ):** ITM undergraduate students who have completed three semesters of study with a GPA of 3.65 or greater and who are in the top 15% of their class may be elected to the Beta Chapter of the National Information Technology Honor Society, Gamma Nu Eta (ΓΝΗ). Two of the three semesters must have been completed at Illinois Institute of Technology. Membership is based on three primary criteria: academic excellence, community service activities, and leadership in the field of Information Technology. The executive board of the chapter is responsible for electing candidates for induction each semester. In addition, the chapter may induct Professional Members each term, and faculty members may be invited to become a Professional Member. Candidates will be notified of their election with an invitation to pledge at the beginning of each term. Inducted members receive a pin and a certificate. Students who continue their membership and active participation in the chapter are recognized with honor ropes and/or stoles in the Society’s colors to be worn with the cap and gown at commencement. The Beta Chapter is currently inactive and can be activated if student leadership steps up and is willing to run the chapter. For more information on Gamma Nu Eta, see the Beta Chapter website at [http://www.itm.iit.edu/gammanueta/](http://www.itm.iit.edu/gammanueta/).
To avoid such situations the university, in a Memorandum from the President dated September 6, 2012, has defined a healthy classroom-extracurricular balance for students. Participation on a varsity team, though rare, can undermine student morale and blunt the development of important life skills. The responsibilities of faculty and student athletes are often a key element in preparing individuals for later life.

On occasion, a situation arises where an instructor requires a student athlete to choose between coursework and participation on a varsity team. Though rare, such situations can undermine student morale and blunt the development of important life skills. The purpose of our student chapter is to foster, promote, and encourage the study of criminal investigations involving advanced technologies and security by the academic community. It is limited to undergraduate or graduate students who have been nominated must complete an extensive questionnaire online to qualify for the award. Nominations normally open in the early fall and usually close sometime in early October. Students who have been nominated must complete an extensive questionnaire online to qualify for the award. See more details at http://illinoistechfoundation.org/itf-programs/fifty-for-the-future-celebration/.

**Student Research Paper/Project Publication Opportunities:**

**ACM RIIT:** The ITM Department has been a major contributor of papers the Association of Computing Machinery (ACM) Research in Information Technology Conference, and had papers named “Best Paper” in three of the last four years. If you complete research that represents new and original thought, please consider preparing a paper for submission to this conference. It is held in conjunction with the ACM Special Interest Group in I.T. Education (SIGITE) Conference each fall, usually in October. The SIGITE/RIIT Call for Publication will be forwarded to all faculty members each year when it is released.

**CRC Press Information Security Management Handbook:** We also have more student-authored papers than any other institution published as chapters in the CRC Press Information Security Management Handbook. If you believe you have completed work suitable for publication in any of the areas of the CISSP Body of Knowledge, you can submit your paper to Bonnie A. Goins, Adjunct Industry Professor, at bgoins@iit.edu or 630.387.9496.

**White Papers:** Papers of particular industry interest may also be published as a School of Applied Technology White Paper. SAT White Papers featured on the Web site of the Chicago-based Technology Executives Club have consistently been the most downloaded papers on the site, so this represents a significant opportunity for professional exposure for our students. To nominate your paper for publication as an SAT White Paper, please submit it to ITM Associate Chair Ray Trygstad, trygstad@iit.edu or 630.447.9009.

**ITM Student Organizations**

**Gamma Nu Eta (ΓNH):** See “Recognition of Academic Achievement” above.

**Information Technology and Management Organization (ITMO):** The purpose of ITMO is to increase recognition for the ITM Major by making resources available for all ITM students. ITMO members organize, promote, and manage this organization to assist their peers in the ITM Department. ITMO also holds events, fundraisers, socials, and other functions; they also do community work and invite guest speakers. ITMO wants to serve as an umbrella for multiple partnerships, affiliations, and organizations that members will have options to join. This organization is dormant as of Fall 2018, but all will take to reinvigorate it is committed student leadership. If you want to revive this group, please contact Ray Trygstad, trygstad@iit.edu or 630.447.9009.

**The High Technology Crime Investigation Association (HTCIA) Illinois Tech Student Chapter:** HTCIA was formed to provide education and collaboration to local members for the prevention and investigation of high tech crimes. The purpose of our student chapter is to foster, promote, and encourage the study of criminal investigations involving advanced technologies and security by the academic community. It is limited to undergraduate or graduate students in information technology and management, computer science, cybersecurity, law, accounting, auditing, or similar programs of study. For more information, contact Marika Jasinski, mjasinski2@hawk.iit.edu.

**CompTIA Association for Information Technology Professionals (AITP):** Illinois Tech students were launching a chapter of Association for Information Technology Professionals (AITP), but AITP recently merged with CompTIA, the computer industry trade association. We are actively engaged with AITP about plans for student chapters, and we will pass along any information as we learn more. A very positive outcome of the reorganization is that student membership in CompTIA AITP at the national level is now free and among other benefits includes a 50% discount on CompTIA certification exam vouchers. We strongly encourage every ITM student to join now at https://www.aipt.org/join-now/register/student/.

**ACM-W:** The Association for Computing Machinery (ACM) is the oldest and best established professional and academic association in the computing disciplines. ACM-W supports, celebrates, and advocates internationally for the full engagement of women in all aspects of the computing field, providing a wide range of programs and services to ACM members and working in the larger community to advance the contributions of technical women. Illinois Tech has a very active ACM-W chapter; to find out more go to https://www.facebook.com/acmw.iit/. In addition, the Illinois Tech chapter of Women in Cybersecurity is contiguous with and is operated by our ACM-W Chapter.

**Student Athletics Academic Policy**

**Responsibilities of Faculty and Student Athletes:** Faculty members work very well with the Illinois Tech athletics department to facilitate the ability of our student athletes to pursue their academic interests and to satisfy all academic requirements while still competing on a varsity team. Varsity athletics is important to the fabric of university life, important not just to the participating athletes but also to the entire student body. At IIT, participation in athletics is often a key element in preparing individuals for later life.

On occasion, a situation arises where an instructor requires a student athlete to choose between coursework and participation on a varsity team. Though rare, such situations can undermine student morale and blunt the development of a healthy classroom-extracurricular balance for students.

To avoid such situations, in a Memorandum from the President dated September 6, 2012, has defined the responsibilities of varsity student athletes and faculty members with respect to such matters:
The student athlete is responsible for providing the instructor with a schedule of all sanctioned contests during the first week of the semester or as soon thereafter as the dates are set.

Except in extraordinary cases, a varsity student athlete is to be excused without penalty from a class when it directly conflicts with a formal sanctioned contest with another university/college.

If an exam, quiz or other academic test/presentation is scheduled for the class period for which the student athlete is excused, the instructor is generally expected to work with the student to make reasonable arrangements to take the exam or quiz, or make the required presentation, either before or after the missed class. In cases where reasonable arrangements cannot be made, such as joint student presentations (e.g., IPRO presentations), then the student-athlete will be expected to attend the class.

The instructor is responsible for informing the student athlete in a timely manner of any assignment that will be made during the missed class.

The student athlete is responsible for obtaining class notes from the students who attend the class and for completing all assignments due at the missed class or assigned at the missed class.

The athletic director is responsible for communicating this policy to the varsity coaches and student athletes, collecting first-hand information for claims of violation and transmitting those claims to the relevant deans with back-up information.

The student-athletes are accountable for communicating this policy to their faculties, and for ensuring that their faculty members adhere to the policy.

Funding: Scholarships, Internships, Coops, Job Placement, and Student Employment

Scholarships: Undergraduate students should discuss financial aid possibilities with admissions and the financial aid office at Illinois Tech’s Mies Campus. There is currently no ITM departmental scholarship support available for undergraduate students, but there are externally funded scholarships that require application through the department.

Department of Defense Information Assurance Scholarship: The Secretary of Defense for Networks and Information Integration annually announces a Department of Defense (DoD) Information Assurance (IA) Scholarship Program grant and scholarship competition. Recipients are required to serve a period of obligated service in DoD as a civilian employee or a member of one of the armed forces. Recipients receive full tuition, books, and stipends of $22,500 for undergraduate students and $34,000 for graduate students. Applicants must be U.S. citizens or permanent residents and must be enrolled in a program with a cybersecurity focus. Applications for this grant will be actively solicited by the department as soon as the announcement is received from the DoD, and will normally be due in mid-May. While awarded annually, the scholarships are renewable but will require a new application each year.

CyberCorps® Scholarship for Service: This U.S. government program provides scholarships that fully fund the typical costs incurred by full-time students in or entering cybersecurity curricula, including tuition and education and related fees, for up to three years. Additionally, recipients receive stipends of $22,500 for undergraduate students and $34,000 for graduate students. The scholarships are funded through grants awarded by the National Science Foundation, and require one year of Federal service for each year of scholarship received. Applicants must be U.S. citizens or permanent residents. Our application to award these scholarships is pending, and we will make an announcement if we are awarded this grant.

Internships, Coops, and Job Placement: Illinois Tech Career Services (http://web.iit.edu/career-services/) is the organization within the university that supports and facilitates student internships, cooperative education (coops) and job placement efforts. They also conduct university-wide Job Fairs once each semester as well as regular seminars covering topics such as résumé preparation. Please see their Web site for full details and descriptions of how to use their services. In addition, the ITM Department has frequent opportunities to assist students seeking internships, co-ops, or employment. Internships and career resources for ITM students are managed and coordinated by Steven Szmurlo, our Internship and Career Resource Manager, PH 221, szsmurlo@iit.edu, 312.567.5281.

Direct Offers to ITM Students: Occasionally the ITM Department will receive direct solicitations for internships, coops and employment. These may be posted on the Jobs board at the Rice Campus and will normally be sent to all ITM students via email. In the case of internships and coops, even if a direct solicitation is received, all arrangements for the internship or coop must be made via Career Services.

Employer Showcase sessions: Prospective employers in all areas of information technology will present opportunities offered by their companies in lunchtime sessions throughout the year. They usually buy lunch—not often pizza—and after their presentation will have an opportunity to questions. Past events have included a diverse set of employers including Google, Red Sky Technologies, and University of Chicago Medicine. Watch the ITM Weekly Newsletter for announcements of these Employer Showcase sessions.

Other Opportunities for Employment: The opportunity to present at workshops, conferences and student colloquia sponsored by the School of Applied Technology has proven to be fertile ground for employment for many ITM students. At any of these events, there may be (and usually are!) prospective employers evaluating students as they present results of their research and projects. Students have received direct job offers as a result of the quality of their participation in these events; in some cases offers have been made immediately following the conclusion of the student’s presentation. Direct job offers are also solicited from faculty and staff members of ITM and are either emailed to students directly, or are featured in the ITM Weekly Newsletter. Occasionally, employers ask faculty members to select students to apply for jobs, and those requests are forwarded to faculty members exclusively who will contact students they are recommending individually.

LinkedIn: LinkedIn.com is the leading professional networking social media site for the information technology profession. The ITM Department urges every student embarking on a search for internships or employment to complete and maintain a full profile on LinkedIn. Students in the department have been offered interview opportunities by firms where they had not applied based on the strength of their profile, and this is the first place IT professionals look for information on fellow professionals. Your profile should include a professional portrait photograph, and Career Services will do free student headshots at least once each semester so there’s no reason not to have one. (One of the companies who has invited students to interview based on their LinkedIn profiles is Google!)
ITM Department Student Employment: The following student employment positions in the School of Applied Technology (SAT) and the ITM Department are available to ITM undergraduate students:

- **Technical Staff Member:** Students in these positions perform information technology tasks in the School of Applied Technology for Mies Campus technology support, Rice Campus technology support, and SAT infrastructure support, and are paid hourly up to 20 hours/week. Most student employment for ITM undergraduates is in these positions. Contact the SAT Director of Information Technology Louis McHugh, IIT Tower room 14C3-2, lmchugh@iit.edu for information on applying for these positions.

- **Administrative Staff Member:** Students in these positions perform administrative tasks in the ITM Department office in Perlstein Hall at the Mies Campus and are paid hourly up to 20 hours/week. Contact the ITM Program Manager, Amber Chatellier, PH 223, achatell@iit.edu, 312.567.5277 for information on applying for these positions.

- **ITM Course Laboratory Staff Member:** This is a quarter time (10 hours/week) or half time (20 hours/week) position, reporting to a faculty member to support curriculum-specific laboratories. As most of these duties are normally performed by Graduate Teaching Assistants, course laboratory staff members are normally hired only when specifically requested to fill a position by a faculty member. Consequently there is no formal application process for this position. Processing and hiring for these positions is managed by the ITM Program Manager, Amber Chatellier, PH 223, achatell@iit.edu, 312.567.5277.

**Campus-Wide Identification (CWID) and Unified-ID (UID)**

Each student is assigned an 9-digit Campus-Wide Identification Number or CWID, frequently referred to as your Student ID Number or A#; each IIT Faculty and Staff member is assigned a CWID as well. Undergraduate students received this number in their acceptance letter from Admissions. You will also be assigned a Unified-ID (UID), which is used to log into MyIIT and is your email username. It is generally the first letter of your first name followed by the first seven letters of your surname. If there are other students with the same letter combination, your UID may have a number appended to the end as well. If a student’s entire name is less than eight letters, then their UID will be less than eight letters. When emailing advisers or faculty always include your CWID (A#).

**MyIIT**

MyIIT (http://my.iit.edu/) gives you access to online services for Illinois Tech students, including email, class registration, online course access via Blackboard, University announcements, IIT Today, and student news and events. The initial password for MyIIT is your birth month and year in MMYY format followed by the last four digits of your CWID number. For example, if you were born on July 4th, and your CWID is A2035678, your initial MyIIT password would be 07045678. You can look up both your Unified-ID and your email address by looking yourself up in the IIT People Search at http://www.iit.edu/people/search/. For more information on MyIIT, see the “Training and Support” tab at http://my.iit.edu/. (By the way, the software that runs MyIIT is called Banner. During the Fall 2018 semester, we will transition from Banner v8 to Banner v9, which may produce significant changes in the MyIIT portal. Consequently, the description of Online Student Services below may become obsolete.)

**Online Student Services**

Almost every function of Illinois Tech student services is available online through MyIIT; most are found under the Academics tab, which accommodates these channels:

- **Academic Profile:** The place to view your basic academic profile, primary adviser and use quick links to view your unofficial transcript and holds.
- **Registration Tools:** Provides quick links to look up your class schedule and add or drop classes.
- **Banner Self-Service:** Allows you to navigate through all areas of Banner Self Service including student records, financial aid and personal information forms where you can update addresses and other info.
- **Student Grades:** Use this quick link to view your grades.
- **Enrollment Verification:** You can access and print official certificates of enrollment to provide to a health insurer, auto insurer, or other company that requests proof of your enrollment.

Undergraduates must receive an Alternate PIN number from their adviser to register (see the Advising section above). If you’re having difficulty registering, please contact the Illinois Tech Registrar’s office at registrar@iit.edu from your hawk.iit.edu email account.

**Electronic Mail**

The primary method for university-to-student communication is through your IIT email. An email account is automatically set up for you when you are admitted. Your email username is the same as your UID, and this email username, when followed by @hawk.iit.edu, makes up your email address at Illinois Tech. Email service is IIT Gmail provided through Google Apps for Education, available through Web access at MyIIT or by using a client program such as Outlook, Thunderbird, or Windows Mail. Your email password for client programs is the same as your MyIIT login. It is very important that you either check your IIT student email regularly or forward your student email account to your primary email address. To learn how to forward IIT email and change your IIT email contact address, please see the IIT Student Accounts FAQ at http://my.iit.edu/iit/ots/how_to/faq1.shtml. (You must already be logged into MyIIT to use this link.) When emailing advisers or faculty always include your CWID (A#).

**Blackboard and Online Courses**

All faculty and students are provided with accounts on IIT Blackboard. Illinois Tech’s online learning support system. Online resources for all Illinois Tech courses are normally available through Blackboard, and online course lecture content is always on Blackboard. Faculty members will use Blackboard for delivery of their syllabus, assignment details and assignment submissions even if the course is not delivered online. Login by clicking the Blackboard icon at the top of the screen in MyIIT. Once you access the system, you should see a welcome page that lists your courses for the current semester. Click on the appropriate link to access course materials. To learn more about using Blackboard, please see the Blackboard Student Manual which is located under “My Courses” on the initial
ITM Online Course Policies
Most non-laboratory courses in our programs are offered on the Internet via IIT Online. Online course lectures can be accessed via Blackboard. Online course content is available to all students registered for the course, including those students in the live classroom sections of the course.

- **Online Course Policies for International Students on F1 Visas:**
  - Only one online course may be taken per semester. This is a government requirement & cannot be waived.
  - In their first semester in the program, F1 Visa students cannot enroll in online sections of any course. This is intended to engage the student in the learning process so that they are not distracted from their studies.

- **Online Course Policies for Students Enrolled in Live Sections:**
  - For students in live sections, actual classroom attendance is expected and online content may not serve as a substitute for live classroom attendance. Students in live sections who do not attend class may be penalized in the class participation component of their course grade.
  - If a course has an online component, live students who miss a class session due to illness or other authorized absence are expected to view the lecture they have missed online.

- **Online Course Policies for All Students:**
  - Online students are responsible for all assignments announced in class. Failure to watch the lecture is never an acceptable excuse for failure to submit assignments on the due date.
  - Some students fail to keep up with the on-line lectures and only skim over the material. As a result they miss critical information and fail to hand in assignments on time because they are not prepared when the assignment is due. Often they try to review all the lectures at the last moment to prepare themselves for an assignment, with bad results. Live students sometime use the Blackboard facilities as a substitute for attending class regularly; thus depriving themselves of the best option available to them, which is the live class. As a result, instructors may require that no more than the last three lectures be available at any point in the semester, which will force students to stay on schedule with lectures and course assignments. If this is the class policy, instructors may have all lectures made available online two weeks prior to the final exam for review purposes.
  - Undergraduate students may take online courses only with permission of their adviser. This permission will be based on the adviser’s judgment as to the capability of the student to succeed in an online course. The adviser must enter a permit in the system to enable undergraduate enrollment in an online course section. Permission to enroll in an online course will not normally be granted during a student’s first semester in the program. It is not possible to complete the undergraduate degree through distance learning; live course attendance is required.

Computers and Computer Labs
Computer accounts and laboratories are essential to our academic programs. Computer labs for use by ITM/IT students are provided by the Rice Campus, the School of Applied Technology and by Illinois Tech’s Office of Technology Services (OTS). Portal and email accounts are provided for students and faculty by OTS located on our Mies Campus. **The ITM Department does not issue any computers to students.**

- **Rice Campus Computer Labs:** The labs are managed by the Johannesen Computer Center, Rice Campus room 208, and include Rice Campus rooms 207, 208, 210, 240, 244, 247, 249, 250, 255 and 256. Room 240 is a multi-use laboratory, room 250 is a network, security & forensics lab which is normally physically isolated from the rest of the campus network, room 255 is a specialized digital real-time communications lab, and room 256 is a wireless data communications lab. Rice Campus also provides an 802.11g/n wireless network for student and faculty use. Problems or issues with Rice Campus computing facilities should be reported via an email trouble ticket to appliedtech@iit.edu.

- **Mies Campus Computer Labs:** The School of Applied Technology provides computer labs at 3424 South State Street on the second floor of the South Tower, and on the ninth and fourteenth floors of the IIT Tower. Problems or issues with ITM-managed computing facilities at Mies Campus should be reported via an email trouble ticket to appliedtech@iit.edu. The Mies Campus Office of Technology Services also provides an 802.11g/n wireless network for student and faculty use.

- **Information Technology (IT) / Information Technology & Management (ITM) Servers and Server Accounts:** Additional server accounts may be provided for ITM/IT students and faculty and dedicated servers may be provided to support specific courses; details of these accounts and servers are available from Louis McHugh (IIT Tower room 14C3-2 or lmchugh@iit.edu). Problems or issues with ITM servers should be reported via an email trouble ticket to appliedtech@iit.edu.

  - **Project Support:** Computers may be requested by faculty members to support student projects; such requests should be made as soon as the need is recognized. Servers will be virtual servers unless there is a compelling reason why that will not work. Virtual servers in standard configurations may be provided on a next-day basis; custom configurations are normally provided in two days but may take up to a week to provision. It may take up to a week to provide physical computers and providing these computers is completely dependent on the availability of resources.

- **Student Computer Ownership and Use:** Students entering any ITM degree after Fall 2016 are required to possess a notebook computer with both wired and wireless network access for use in our programs; details of the minimum and desired configurations may be found in the latest Information Technology & Management Student Notebook Computer Specification on page 22 of this handbook.
Software Available for ITM/IT Students

- **Microsoft Software**: The School of Applied Technology is a subscriber to Microsoft Imagine Premium software under terms of the licensing agreement which permits academic use of these files by faculty and students as per the Subscription Agreement found at [https://imagine.microsoft.com/en-us/institutions/guidelines](https://imagine.microsoft.com/en-us/institutions/guidelines). The files include all current Microsoft operating systems, servers, and application development tools, and include applications such as Windows 7, Windows 8.1, Windows 10, and Visual Studio. Our subscription does not include any Microsoft Office tools except Visio, Project, Outlook, One Note and Access (for Office, see below). You can download Microsoft software from your ITM Software account; these accounts are normally established at the beginning of the third week of the Fall and Spring semesters, and the second week for the Summer semester. You will receive an email from the Program Coordinator discussing the program and a separate email from Kivuto Solutions with your login information including your password. Product keys for this software are provided at the time of download so we suggest that you save a copy of this page. For more information about our accounts see [http://www.itm.iit.edu/software/](http://www.itm.iit.edu/software/) and to access our webstore see [http://www.itm.iit.edu/software/webstore.html](http://www.itm.iit.edu/software/webstore.html). Microsoft DreamSpark Premium membership benefits information is at [https://www.dreamspark.com/institution/subscription.aspx](https://www.dreamspark.com/institution/subscription.aspx).


- **VMware**: Software available to students and faculty through the VMWare Academic Program can be downloaded through your ITM Software account managed by Kivuto Solutions. This account will give you access to VMware products—for free—as well as a token allowing you to enroll in VMware eLearning Courses online. You are entitled to one free copy of each product, with licenses good for 1 year. Unlike the Microsoft Imagine account, we CANNOT authorize additional downloads (i.e. more than one license) of these products, but according to the site you can redownload the software as necessary. More importantly, license keys are issued to you on the Web page at the time of download, and we cannot get you additional or replacement keys, so we suggest that you save a copy of any keys issued to you on the site.

- **IBM**: As an IBM Academic Affiliate, IBM developer and analytics software is available to students and faculty.

- **Oracle**: The ITM Department is an Oracle Academy which makes Oracle software available to faculty and students. Contact the Oracle Academy manager for access to software: SAT Director of I.T. Louis McHugh, IIT Tower room 14C3-2 or lmchugh@iit.edu.

- **Autodesk**: Free software for students from Autodesk including Autocad and Maya is available at [http://www.autodesk.com/education/free-software/featured](http://www.autodesk.com/education/free-software/featured).

- **Other Free Widows Software**: We used to maintain a download page with links to recommended software, but this year instead we recommend that you use [https://ninete.com/](https://ninete.com/). Ninite will create an installer for all the software you have selected, which when run will install the correct version for your OS with no toolbars or other crapware. To update the software, just run the installer again. The School of Applied Technology uses Ninite Pro to configure our computer lab systems.

- **IIT Licensed Software**: Commercial software licensed for Illinois Tech use is available under the Training and Support tab in MyIIT and includes applications such as Mathematica and Virus Scan anti-virus products from McAfee.

Writing Research Papers

The ability to write cogently, concisely and clearly in an acceptable academic format and to present the results of your research orally are skills you must develop to become a success in our program. At the same time, you will be learning skills essential to success in your working life after graduation, as the ability to communicate clearly in written and spoken English is one of the most important elements to success in business. You will regularly be expected to submit research papers and project reports as you progress through our program. Here’s some key advice to help you succeed.

- **Format of Research Papers**: Unless your professor gives you different instructions, you should prepare ITM research papers in the formats prescribed by the *Publication Manual of the American Psychological Association*, (commonly referred to as APA), which are very common styles in use for scholarly publications and academic papers. Among other things, this means that you should submit your paper typed in 10, 11, or 12-point type (no larger than 12-point), double-spaced, with 1 inch margins on one side of 8½ inch by 11 inch paper. Quotations, figure captions and the list of references should all be double-spaced. Devote separate pages to each figure, each table and the list of references, and number all pages after the first. Attach a cover sheet showing the title, your name, your IIT ID number, and the professor’s name. If submitting electronically, please submit as a PDF file or in Rich Text Format. Most word processors can save as RTF. Your professor may prescribe specific required or acceptable electronic formats.

  - **Title**: Make your title short and specific. Ideally, titles should be 5 or 6 words long, never more than 10.
  - **Length**: Make papers as concise as possible; 10 to 15 pages should be reasonable for an undergraduate ITM research paper. Note that your professor may prescribe a different length expectation and in some cases they may be quite a bit shorter. Please count only pages containing body text; figures, tables, the abstract, references and bibliography do not toward the page total.
**Writing Papers:** The following outline suggests an effective way of organizing a paper (it’s just a suggestion):

1. **Describe the problem;**
2. **Discuss previous work in the field and any necessary background information**
3. **Explain what you did, how you did it, and what obstacles you encountered;**
4. **State your solution or conclusion;**
5. **List the resulting benefits, both quantitative and qualitative; and**
6. **If applicable, provide an appendix giving the particulars of any models used or data collected during the research.**

In writing your paper, explain your work so readers outside the field can understand it. If you must use a specialized term, abbreviation, or acronym, make sure you define it; write out an acronym or abbreviation the first time it appears and enclose it in parentheses immediately afterwards.

**Here is a possible step-by-step breakdown:**
- Choose an area of interest to you to start your topic selection
- Search for publications—both in print and online—related to your topic
- Narrow your topic to refine your search results
- Formulate a thesis statement to guide your research
  - A good thesis statement is critical; it’s the answer to the question that your paper explores and clearly delineates the argument that will be presented in your paper (see the humorous but accurate explanation to the right)
- Scan books to see if they are relevant
  - Use the Table of Contents & index to quickly locate useful information
- The table of contents for many books is now available online at the publisher or on amazon.com
- If you find a book you need at Barnes & Nobles or on amazon.com, go to our library and odds are that if they don’t have it that they can get it on interlibrary loan.
- Make notes on, or photocopy, interesting passages as you encounter them
- Make notes as you read to capture thoughts, questions, and ideas
- Refine your research question and do further information gathering
- Compose and write down your working thesis
- Review and reflect on work done in the field already; discuss any necessary background information
- Construct your argument, with the main points organized in an outline.
Accessing IIT Rice Campus

Courses in our programs are offered at two physical locations:

The Illinois Tech Mies Campus along State Street between 31st and 35th Streets in Chicago, Illinois
The Daniel F. and Ada L. Rice Campus at 201 East Loop Road in Wheaton, Illinois

Mies Campus to Rice Campus Public Transportation: Mies Campus students can take a train from the Ogilvie Transportation Center (commonly known as Northwestern Station) on the Metra Union Pacific West Line to Wheaton or College Avenue, and from Wheaton or College Avenue back to Chicago. To get to the Ogilvie Transportation Center, take the CTA Green Line train to Clinton and walk two blocks south. Metra round-trip train fare to Wheaton/College Avenue is $13.50. The Pace Bus system, which provides bus transportation for suburban Chicago, operates Pace Bus Route #714 from the Metra Stations at Wheaton and College Avenue to the Rice Campus. Your Student Ventra Card is accepted on Pace Buses, and Pace Bus #714 to the Rice Campus runs...
Monday through Friday, 6:30am to 6pm. Pace Bus fare in cash is $2.25. A shared Lyft or Uber ride from the Rice Campus to either Wheaton Metra station after evening classes should be $8-10 per person. We strongly suggest you use the public transportation option in Google Maps to map out any travel by public transportation in the Chicago metropolitan area. Please note that bus and train schedules are subject to change without notice, and that IIT has no control and very little influence over Chicago Transit Authority, Metra or Pace transportation services.

**Personal Hygiene**

Students in programs at Illinois Tech come from all over the world and as everyone knows, social and cultural differences mean that we do things in many different ways. In much of the world, clean fresh water is something that is in very short supply and consequently standards of personal hygiene can very greatly. And quite frankly, many domestic American students, once free of the critical eyes and noses of Mom and Dad, often lapse into unhygienic practices. In the interests of student harmony—and so we don’t have to single anyone out to discuss the adverse effect of poor personal hygiene on people trying to sit next to you in class—here are normal expectations for personal hygiene in the United States, where clean fresh water is plentiful and is included with your dorm room fees or apartment rent.

- **Bathing:** Adults normally bathe or shower every day, washing with soap. Additional showering or bathing may be necessary after sports or other vigorous activities.
- **Deodorant:** Most adults in the U.S. use some form of underarm deodorant.
- **Perfumes and Colognes:** In many societies where it is not practical to bathe daily, unpleasant body odors are often masked with heavy applications of perfume or cologne. This should not be necessary with daily bathing, and may be not only offensive to others but may actually produce allergic reactions. This is not to say that they should not be used, but they should be used very lightly or sparingly at most.
- **Teeth and Breath:** Teeth should be brushed at least twice a day; many Americans brush after every meal. If you brush your teeth well (dentists recommend brushing for at least two minutes with toothpaste) this will handle most problems with bad breath, but some people will use a mouthwash as well.
- **Laundry:** Americans normally launder all undergarments and shirts, blouses, dresses or other upper body garments that come in direct contact with underarms after every wearing; in other words, these clothing items are normally worn for a day and then put into the laundry. Lower body garments (trousers, slacks, shorts, skirts, etc.) can be worn more than one day but certainly should be laundered anytime they are visibly soiled or there is a noticeable odor. Outer garments (coats, sweaters, etc.) are laundered or drycleaned anytime they are visibly soiled or there is a noticeable odor. This does not mean you must wash your laundry every day, but you certainly should do it whenever you have no clean upper body clothing items or undergarments.

**Other Important Student Resources**

- **ITM Loopback (ITM Department blog):** [http://blogs.iit.edu/itm_loopback/](http://blogs.iit.edu/itm_loopback/)
- **ITM Student Resource Page:** [http://appliedtech.iit.edu/information-technology-and-management/current-students/resources/information-technology-and](http://appliedtech.iit.edu/information-technology-and-management/current-students/resources/information-technology-and)
  (Includes links to the ITM Undergraduate and Graduate Student Handbooks)
- **ITM Resource Page:** [https://appliedtech.iit.edu/information-technology-and-management/current-students/resources/](https://appliedtech.iit.edu/information-technology-and-management/current-students/resources/)
- **IIT Student Handbook:** [http://www.iit.edu/student_affairs/handbook/](http://www.iit.edu/student_affairs/handbook/)
- **IIT Graduate Bulletin:** [http://bulletin.iit.edu/graduate/](http://bulletin.iit.edu/graduate/)
- **IIT Undergraduate Bulletin:** [http://bulletin.iit.edu/undergraduate/](http://bulletin.iit.edu/undergraduate/)
- **Link to software provided under Microsoft Imagine Premium and the VMware Academic Program:** [http://www.itm.iit.edu/software/webstore.html](http://www.itm.iit.edu/software/webstore.html)
While we do not currently require students who enrolled in the Information Technology & Management (ITM) degree program prior to Fall 2016 to own a notebook computer, it will certainly enhance your student experience to have one. Students entering the department in Fall 2016 and later are required to own a notebook computer.

Standards below reflect specifications for notebook computers for use by ITM students; each category is broken down into recommended, minimum and, where applicable, optional specifications. Your system may run any operating system but must be able to run Microsoft Windows 8.1 Professional as the primary operating system or as a secondary (dual-boot) operating system or as a virtual machine using virtualization software. These are specifications you must meet if you are purchasing a notebook computer for use in our program. If you have questions about these specifications, please contact Ray Trygstad, trygstad@iit.edu or 630.447.9009.

### INFORMATION TECHNOLOGY & MANAGEMENT NoteBook PC Specifications

<table>
<thead>
<tr>
<th>ITEM</th>
<th>RECOMMENDED</th>
<th>MINIMUM</th>
<th>OPTIONAL/OPTIMAL</th>
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<tbody>
<tr>
<td>Processor (CPU)</td>
<td>Intel Core i7</td>
<td>7th Gen Intel Core i5</td>
<td>Intel Core i7 HQ or MQ AMD A10</td>
</tr>
<tr>
<td></td>
<td>AMD A8</td>
<td>AMD A4</td>
<td></td>
</tr>
<tr>
<td>RAM Memory</td>
<td>8GB or greater</td>
<td>8GB</td>
<td>16GB RAM optimal to run Windows 7/10 &amp; virtualization</td>
</tr>
<tr>
<td>Operating System</td>
<td>Microsoft Windows 10 Education</td>
<td>Microsoft Windows 8.1 Professional</td>
<td>Linux or Solaris</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Macintosh OS/X</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Windows Server 2008/2012</td>
</tr>
<tr>
<td>Hard Drive</td>
<td>1TB</td>
<td>500GB</td>
<td>SSD – 512GB or 1TB 7200 RPM hard drive(s)</td>
</tr>
<tr>
<td>Optical drive (May be external)</td>
<td>24-48x CD-RW/DVD-R</td>
<td>24x CD-RW/DVD-R</td>
<td>Blu-Ray / Blu-Ray-R External drive for Surface or Air</td>
</tr>
<tr>
<td>Floppy drive</td>
<td>Neither required or expected</td>
<td>3.5 inch 1.44MB</td>
<td></td>
</tr>
<tr>
<td>Graphics card Display resolution</td>
<td>1GB or greater, 24-bit color</td>
<td>256MB 24-bit color</td>
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</tr>
<tr>
<td></td>
<td>1600x1200 UXGA or greater</td>
<td>1280x1024 XGA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24x CD-RW/DVD-R</td>
<td>1440x900 WXGA+</td>
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</tr>
<tr>
<td>Wireless Network</td>
<td>IEEE 802.11ac w/WPA2</td>
<td>IEEE 802.11g/n</td>
<td>4G Wireless</td>
</tr>
<tr>
<td>Network Port</td>
<td>1000Base-T ethernet</td>
<td>1000Base-T ethernet (USB Adaptor is OK)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Virtually all notebook PCs sold today include a gigabit (1000Base-T) ethernet port as standard items.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peripheral Ports</td>
<td>2 USB-3 / 1 USB-2 or USB-C HDMI video connector or Display Port video connector</td>
<td>1 USB-2 RGB video connector</td>
<td>IEEE 1394 (FireWire) 3 USB-3 / USB-3.1 eSATA</td>
</tr>
<tr>
<td>Office Software</td>
<td>LibreOffice</td>
<td>LibreOffice</td>
<td>Microsoft Office 2007 or newer</td>
</tr>
<tr>
<td></td>
<td>A trial subscription to Microsoft Office 365 which includes five full installations of Microsoft Office for Windows or OSX may be available to Illinois Tech students with an iit.edu email address at <a href="https://products.office.com/en-us/student/office-in-education">https://products.office.com/en-us/student/office-in-education</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optional on Mac/Linux</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-Virus Software</td>
<td>including all current updates</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illinois Tech provides a licensed version of McAfee VirusScan for use by for all students, faculty &amp; staff; Microsoft Security Essentials—which is free from Microsoft—is also recommended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>You may not operate any version of Microsoft Windows on Illinois Tech networks without installed anti-virus software.</td>
<td></td>
<td></td>
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</table>

Convertible or “2-in-1” systems such as the Microsoft Surface, Dell Inspiron or Dell Latitude, Lenovo Thinkpad Yoga or Lenovo Yoga, Acer Aspire, or Toshiba Satellite Radius that comply with these specifications are acceptable. Students should have a flash/thumb drive for lab use; 64GB minimum is recommended. See page 16 above for software available at no cost to ITM students.

Links to special pricing on Dell and Apple computer hardware is available to Illinois Tech students at https://ats.iit.edu/pc-mac/student-pcs-macs.
## Bachelor of Information Technology & Management Curriculum

(Cha-Terminal with Master of Information Technology & Management)

### Semester 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Undergrad Credits</th>
<th>Grad Credits</th>
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</thead>
<tbody>
<tr>
<td>ITM 301</td>
<td>Contemporary Op Sys / Hardware I</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ITMD 421</td>
<td>Data Modeling and Applications</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Natural Science or Engineering Elective</td>
<td>4</td>
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<tr>
<td>Humanities 200-level Elective</td>
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### Semester 2

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<td>Introduction to Software Development</td>
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<td>ITMO 440</td>
<td>Intro to Data Networks &amp; the Internet</td>
<td>3</td>
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<td>MATH 230</td>
<td>Discrete Mathematics</td>
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<td>Social Sciences Elective</td>
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<tr>
<td>Natural Science or Engineering Elective</td>
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<td>Introduction to IT as a Profession</td>
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<td>ITM 312</td>
<td>Introduction to Systems Software Prog</td>
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<tr>
<td>ITMD 361</td>
<td>Fundamentals of Web Development</td>
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<td>0</td>
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<tr>
<td>Natural Science or Engineering Elective</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Social Science Elective (300+)</td>
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<td>Intermediate Software Development</td>
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<td>ITMO 456</td>
<td>Intro to Open Source Operat Systems</td>
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<td>ITMD 362</td>
<td>Human/Comp Interact &amp; Web Design</td>
<td>3</td>
<td>0</td>
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<td>Statistics Elective (MATH 425, BUS 221, PSYC 203)</td>
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<td></td>
</tr>
<tr>
<td>Free Elective</td>
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<td>Project Management for Info Tech</td>
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<td>0</td>
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<tr>
<td>Minor Elective</td>
<td>3</td>
<td>0</td>
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</tr>
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<td>Humanities Elective (300+)</td>
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<td></td>
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<tr>
<td>Free Elective</td>
<td>3</td>
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<tr>
<td>IPRO Elective I</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Social Science Elective (300+)</td>
<td>3</td>
<td>0</td>
<td></td>
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<tr>
<td>Minor Elective</td>
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<td>0</td>
<td></td>
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<tr>
<td>Minor Elective</td>
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<td>Free Elective</td>
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<td>Cyber Security Technologies**</td>
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<td>ITM 5XX Elective</td>
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<tr>
<td>ITM 5XX Elective</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Humanities Elective (300+)</td>
<td>3</td>
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<td></td>
</tr>
<tr>
<td>Minor Elective</td>
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<td>System Integration</td>
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<td>IPRO Elective II</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>ITM 5XX Elective</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Minor Elective</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Humanities or Social Sciences Electives</td>
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<td>0</td>
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### Semester 9

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<td>3</td>
<td></td>
</tr>
<tr>
<td>ITM 5XX Elective</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ITM 5XX Elective</td>
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### Semester 10

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<td></td>
</tr>
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<td>ITM 5XX Elective</td>
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<td></td>
</tr>
<tr>
<td>ITM 5XX Elective</td>
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</table>

**Total Undergraduate Credit Hours**: 127

**Total Graduate Credit Hours**: 30

* Students should be aware that students not completing 30 hours of study in their first year will still be classified as a first year student in the first semester of their second year of study, which may adversely impact some financial aid. Students with issues or questions about this should discuss it with a Financial Aid Counselor.

** Co-terminal students completing the Computer and Information Security graduate specialization will substitute ITMS 548 for ITMS 448.
# Bachelor of Information Technology & Management Curriculum

(Co-Terminal with Master of Cyber Forensics and Security)

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Undergrad Credits</th>
<th>Grad Credits</th>
<th>Semester 2</th>
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<th>Grad Credits</th>
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<tbody>
<tr>
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<td>3</td>
<td>0</td>
<td>ITM 311 Introduction to Software Development</td>
<td>3</td>
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<tr>
<td>ITMD 421 Data Modeling and Applications</td>
<td>3</td>
<td>0</td>
<td>ITMO 440 Intro to Data Networks &amp; the Internet</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Natural Science or Engineering Elective</td>
<td>4</td>
<td>0</td>
<td>MATH 230 Discrete Mathematics</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Humanities 200-level Elective</td>
<td>3</td>
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<td>Social Sciences Elective</td>
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<tr>
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<td>ITM 362 Human/Comp Interact &amp; Web Design</td>
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<td>ITM 312 Introduction to Systems Software Prog</td>
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<td>ITM 411 Intermediate Software Development</td>
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<td>ITMD 361 Fundamentals of Web Development</td>
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<td>ITMO 456 Intro to Open Source Operat Systems</td>
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<td>Statistics Elective (MATH 425, BUS 221, PSYC 203)</td>
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<th>Semester 6</th>
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<td>IPRO Elective I</td>
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</table>
| Minor Elective | 3 | 0 | Social Sciences Elective (300+) | 3 | 0 (300+)
| Humanities Elective (300+) | 3 | 0 | Minor Elective | 3 | 0 |
| Free Elective | 3 | 0 | Free Elective | 3 | 0 |
| **Total Hours** | **18** | **3** | **Total Hours** | **18** | **3** |

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<td><strong>9</strong></td>
<td><strong>Total Hours</strong></td>
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**Total Undergraduate Credit Hours**: 127
**Total Graduate Credit Hours**: 30

* Students should be aware that students not completing 30 hours of study in their first year will still be classified as a first year student in the first semester of their second year of study, which may adversely impact some financial aid. Students with issues or questions about this should discuss it with a Financial Aid Counselor.

** Co-terminal students enrolled in the Master of Cyber Forensics and Security will substitute ITMS 548 for ITMS 448.

IIT Undergraduate Bulletin 2018-2019 ITM Departmental Supplement
Information Technology & Management (ITM) Faculty & Staff Directory

The first location given is the primary office location. The number given is the office room number. Location addresses are:

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Phone numbers not starting with the prefixes above are mobile, personal or multi-location numbers. Adjunct faculty may provide additional information to their students & their phone numbers may be available upon request from the ITM Program Manager, Amber Chatellier.

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### Information Technology & Management (ITM) Faculty & Staff Directory (continued)

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**Key to awards:**
- ★ = Educational Excellence Award (School of Applied Technology)
- ✮ = Jeffrey Kimont Memorial Teaching Award (ITM Department Adjunct Faculty)
- = Excellence in Teaching Award (School of Applied Technology)

### Office of Professional Development Staff Directory

The first location given is the primary office location. The number given is the office room number. Location addresses are:

- **Rice:** Daniel F. and Ada L. Rice Campus, 201 East Loop Road, Wheaton, Illinois 60187
- **Main:** IIT Mies Campus, 10 West 33rd Street, Chicago, Illinois 60616

<table>
<thead>
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