

# BACHELOR OF INFORMATION TECHNOLOGY AND MANAGEMENT: TRANSFER PROGRAM

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## Transfer Admission Requirements

Admitted transfer students are expected to have satisfied the following Illinois Institute of Technology Core Curriculum requirements prior to admission. If not, the student must complete them while working on the ITM degree. The degree requires a minimum of 127 credit hours including transfer and coursework completed at Illinois Tech. A maximum of 68 applicable credit hours of transfer credit is permitted from a two-year college.

### Basic Writing Proficiency Requirement

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

### Computer Science

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

### Humanities and Social Sciences

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

### Free or Technical Electives

28 credit hours of approved courses. Students should contact the Office of Undergraduate Academic Affairs for additional information.

### Mathematics

Five to six credit hours: one course in discrete mathematics, and one course in statistics.

### Natural Science or Engineering

10-11 credit hours of natural science or engineering courses. Relevant science courses include physics, chemistry, astronomy, biology, or engineering graphics. Two sequential courses must be from the same field and one must be from another field. In some cases, certain technology courses might be applied to this requirement. See Illinois Tech Core Curriculum section.

## Program Requirements

Transfer students are expected to take 75 credit hours at Illinois Institute of Technology and transfer 52 credit hours to complete the bachelor's degree for a total of 127 credit hours. This includes 19 information technology courses for a total of 57 credit hours in the major. An additional 18 credit hours outside the major must be taken at Illinois Institute of Technology in order to satisfy the remaining Core Curriculum requirements. These include four 300/400-level humanities and social or behavioral science electives and two IPRO courses. Two social or behavioral science electives must be from the same field and one must be from a different field; lower level social or behavioral science electives count towards this requirement. The computer science general education requirement may be satisfied by completion of ITM 311. Students who wish to complete their undergraduate studies in less than five semesters of full-time study at Illinois Institute of Technology are strongly urged to include at least nine credit hours of courses transferable as required or elective ITM courses among their free or technical electives.

All students must complete a minimum of 36 credit hours of courses with a significant written and oral communication component, identified with a (C) in the catalog; 12 credit hours of (C)-coded courses must be taken in the major.

ITM students are required to complete a minor and are strongly encouraged to consider minors which complement their primary program of study; these include (but are not limited to) business, industrial technology, professional and technical communications, circuits and systems, computer architecture, and ROTC. Courses taken to fulfill a minor requirement may not also be used as electives in the major. The minor requirement may be waived for students entering as transfer students or who change their major to information technology and management after completion of 30 credit hours of studies at the university.

A maximum of nine credit hours of ITM graduate courses taken as an undergraduate may be applied to the Master of Information Technology and Management degree, and any graduate courses taken to fulfill undergraduate degree requirements may not also be applied to a graduate degree unless the student is enrolled in a co-terminal or accelerated master's degree program.

## Required Courses

Code	Title	Credit Hours
<b>Courses Transferred</b>		<b>(49)</b>
or taken at Illinois Tech		49
	Mathematics Requirements: Discrete Mathematics and Statistics	6
Natural Science and Engineering Requirements:		
	See Illinois Tech Core Curriculum, section D	10
Lower-Level Humanities and Social Sciences Requirements:		
	See Illinois Tech Core Curriculum, section B and C	9
	Free or Technical Electives: 24 credit hours of approved courses.	24
<b>Humanities Electives</b>		<b>(6)</b>
300/400-level courses		6
<b>Social Science Electives</b>		<b>(6)</b>
300/400 level courses		6
PSYC 301 is recommended		
<b>Interprofessional Projects</b>		<b>(6)</b>
See Illinois Tech Core Curriculum, section E		6
<b>ITM Requirements</b>		<b>(42)</b>
ITM 301	Introduction to Contemporary Operating Systems and Hardware I	3
ITM 303	Introduction to Contemporary Operating Systems and Hardware II	3
ITM 311	Introduction to Software Development	3
ITM 313	Introduction to Open Source Application Development	3
or ITM 312	Introduction to Systems Software Programming	
ITMD 321	Data Modeling and Applications	3
ITMD 361	Fundamentals of Web Development	3
ITMD 362	Human-Computer Interaction and Web Design	3
ITMD 411	Intermediate Software Development	3
ITMM 471	Project Management for Information Technology and Management	3
ITMO 340	Introduction to Data Networks and the Internet	3
ITMO 356	Introduction to Open Source Operating Systems	3
ITMS 448	Cyber Security Technologies	3
ITMT 330	Introduction to Information Systems and the IT Profession	3
ITMT 430	System Integration	3
<b>ITM Electives</b>		<b>(18)</b>
Select 18 credit hours from ITM, ITMD, ITMM, ITMO, ITMS, ITMT, and TECH		18
<b>Total Credit Hours</b>		<b>127</b>

## Bachelor of Information Technology and Management: Transfer Curriculum

Semester 1	Credit Hours	Semester 2	Year 1 Credit Hours
ITM 301	3	ITM 303	3
ITM 311	3	ITM 313 or 312	3
ITMD 361	3	ITMD 362	3
ITMO 356	3	ITMM 471	3
Humanities Elective (300+)	3	ITMO 340	3
<b>15</b>		<b>15</b>	

Semester 1		Semester 2		Year 2
	Credit Hours			Credit Hours
ITMD 321	3	ITMT 430		3
ITMD 411	3	ITM Elective		3
ITMT 330	3	ITM Elective		3
ITMS 448	3	ITM Elective		3
ITM Elective	3	I PRO Elective I		3
Social Sciences Elective (300+)	3			
	<b>18</b>			<b>15</b>

Semester 1		Year 3
	Credit Hours	
Social Sciences Elective (300+)	3	
Humanities Elective (300+)	3	
I PRO Elective II	3	
ITM Elective	3	
ITM Elective	3	
	<b>15</b>	

**Total Credit Hours: 78**

## Information Technology Curriculum Specializations

The ITM electives may be chosen from one or more of the following course specializations. ITM required courses may not be counted toward completion of elective requirements for specializations. With the permission of the adviser, other undergraduate or graduate courses in the same area may be substituted for courses in a specialization.

### Data Management

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

Code	Title	Credit Hours
ITMD 422	Advanced Database Management	3
ITMS 428	Database Security	3
Select two courses from the following:		6
ITMO 444	Cloud Computing Technologies	3
or any ITMD elective(s)		
<b>Total Credit Hours</b>		<b>12</b>

### IT Entrepreneurship and Management

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

Code	Title	Credit Hours
ITMM 470	Fundamentals of Management for Technology Professionals	3
ITMM 481	Information Technology Entrepreneurship	3
ITMM 482	Business Innovation	3
Select one course from ITMM or the following:		3
any BUS electives at the 200-level or above		3
or any INTM electives selected with adviser's approval		3
<b>Total Credit Hours</b>		<b>12</b>

### Networking and Communications

Focuses on network applications and management.

Code	Title	Credit Hours
ITMO 441	Network Administration and Operations	3
ITMO 446	Telecommunications Over Data Networks	3
Select one course from the following:		3
ITMO 433	Enterprise Server Administration	3
ITMO 453	Open Source Server Administration	3
Select one course from ITMO, ITMT, or the following:		3
ITMD 441	Web Application Foundations	3
ITMS 443	Vulnerability Analysis and Control	3
ITMS 478	Cyber Security Management	3
<b>Total Credit Hours</b>		<b>12</b>

## Software Development

Focuses on programming and the development of sophisticated applications.

Code	Title	Credit Hours
ITMD 415	Advanced Software Development	3
ITMD 441	Web Application Foundations	3
Select two courses from the following:		6
ITMD 412	Advanced Structured and Systems Programming	3
ITMD 413	Open Source Programming	3
ITMD 419	Topics in Software Development	3
ITMD 453	Enterprise Intelligent Device Applications	3
ITMD 454	Mass-Market Intelligent Device Applications	3
ITMD 455	Open-Source Intelligent Device Applications	3
or any ITMD elective		3
<b>Total Credit Hours</b>		<b>12</b>

## System Administration

Focuses on the administration and the management of servers.

Code	Title	Credit Hours
ITMO 441	Network Administration and Operations	3
Select two courses from the following:		6
ITMO 433	Enterprise Server Administration	3
ITMO 450	Enterprise End-User System Administration	3
ITMO 453	Open Source Server Administration	3
Select one course from the following:		3
ITMO 417	Shell Scripting for System Administration	3
ITMO 444	Cloud Computing Technologies	3
ITMO 454	Operating System Virtualization	3
ITMS 458	Operating System Security	3
<b>Total Credit Hours</b>		<b>12</b>

## Systems Security

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

Code	Title	Credit Hours
ITMS 478	Cyber Security Management	3
Select one course from the following:		3
ITMO 433	Enterprise Server Administration	3
ITMO 441	Network Administration and Operations	3
ITMO 450	Enterprise End-User System Administration	3
ITMO 453	Open Source Server Administration	3

Select two ITMS electives

6

**Total Credit Hours****12****Web Design and Application Development**

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

<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
ITMO 441	Network Administration and Operations	3
ITMD 441	Web Application Foundations	3
Select two courses from the following;		6
ITMD 442	Full-Stack Web Development	3
ITMD 443	Front-End Web Development	3
ITMD 444	Back-End Development	3
ITMD 446	Web Microservices and APIs	3
ITMD 447	Web Systems Integration	3
ITMD 449	Topics in Web Development	1-3
ITMD 453	Enterprise Intelligent Device Applications	3
ITMD 454	Mass-Market Intelligent Device Applications	3
ITMD 455	Open-Source Intelligent Device Applications	3
ITMD 466	Service-Oriented Architecture	3
ITMO 444	Cloud Computing Technologies	3
<b>Total Credit Hours</b>		<b>12</b>