

UNO COLLEGE OF INFORMATION SCIENCE & TECHNOLOGY



UNIVERSITY OF
Nebraska
Omaha



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UNDERGRADUATE ADVISING

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PKI Building

The College of Information Science and Technology (IS&T) is housed in the Peter Kiewit Institute (PKI), located approximately one mile south of the UNO Dodge Street campus, separated by a city park and golf course. The facility provides laboratory, office, research, and classroom space, as well as computer facilities for both the College of Engineering and the College of IS&T. The computer networks and labs in this building consist of the latest fiber optic design. The PKI building opened its doors to students in August 1999; the IT Innovation degree was established in June 2009.

www.ist.unomaha.edu

THE COLLEGE OF INFORMATION SCIENCE AND TECHNOLOGY

OBJECTIVE

The principal goal of the College of Information Science & Technology (IS&T) is to produce the next generation of information specialists. The College is committed to providing comprehensive, current, and quality education to students as illustrated by its motto: ***“No student will go unchallenged or unassisted.”*** Students graduating from our programs are technically prepared to enter the information industry, apply technology in organizational environments, embrace life-long learning, and contribute to their communities. IS&T is utilizing some of the following methods to achieve its objectives:

- Forming partnerships with the business community
- Assisting students in finding internships
- Offering challenging courses, including seminars and special topics courses
- Faculty and executive-in-residence program
- Providing the latest in curriculum, programs and computer technology
- Identifying future requirements in business and information technology, and preparing students to meet those needs
- Aiding students with career planning and job searching

DEGREES

Bachelor of Science in IT Innovation (BITI)

The Information Technology Innovation (ITIN) program involves the study of entrepreneurship as it relates to IT and an individual field of interest. Courses in this degree program are listed in the catalog as IT Innovation (ITIN).

INTERNSHIP PROGRAM

The College of IS&T has a unique opportunity to match students and businesses together through its internship program, which is structured for junior and senior students who desire a work environment where they can apply the knowledge they acquire in the classroom to a work situation. Arrangements are made for the experience to be full or part time, and academic credit can also be determined depending on the opportunities involved in the work assignment. Through internships, businesses have the opportunity to assess an individual's performance level, problem solving skills, and ability to work in a group, and students are prepared for the best jobs because they are challenged to learn the skills needed to become the leaders of tomorrow.

CAREER FIELDS

Why major in IT Innovation?

- To have flexibility in designing your own curriculum
- To be able to take more courses that are aligned with your career goals
- To be prepared to be an entrepreneur (an ambitious leader who combines his/her ideas with labor and capital to create and market new goods or services)
- To be prepared to be an intrapreneur (using entrepreneurial skills as an employee within an established organization)
- To have a degree that appeals to a wide variety of potential employers

The IT Innovation Degree has three simple but distinguishing features:

1. You pick 33 credit hours from anywhere on campus that line up with your career goals.
2. You participate in seminars, workshops, and conferences on entrepreneurship.
3. You take a solid core of IT courses, plus a two-semester senior capstone course where:
 - You have an idea for a new IT product or service.
 - You document your idea's technical and market feasibility.
 - You carry your idea through to prototype stage.

This guide provides basic information about the IT Innovation Degree. All potential IT Innovation majors are encouraged to see an academic advisor to determine a suggested program schedule. To obtain a BITI degree, a student must fulfill certain University, College and Departmental requirements.

UNIVERSITY REQUIREMENTS FOR THE BITI DEGREE

GENERAL REQUIREMENTS

1. A minimum of 120 credit hours is required for the degree.
2. Students may follow the UNO catalog requirements in effect at the time of their first enrollment, provided continuous enrollment is maintained (fall, spring, fall, spring...).
3. **Thirty of the last 36 hours must be University of Nebraska at Omaha courses.**
4. Registering for courses without having taken the stated prerequisites could result in administrative withdrawal.
5. Courses such as English 1050, 1090, and 1100 and orientation courses in other colleges or divisions may not be counted as part of the minimum 120 credit hours in the degree program. University Seminar 1010 may be applied as an elective if taken in the first 30 hours of the degree program.
6. No more than four semester hours of physical education may count toward the degree.
7. No more than a maximum of 12 semester credit hours of approved courses may be taken in any one department outside of the College of IS&T with the exception of foreign languages. A maximum of 16 semester credit hours in any one foreign language may be applied to the degree. More than one foreign language is allowed.
8. A repeated course may count only once for graduation. (Exceptions are internships, independent studies, physical education activity courses, and special topic courses).
9. Students must see a College of IS&T advisor regarding the specific requirements for their major. Advising appointments can be scheduled online at <http://mavtrack.unomaha.edu> or by contacting the College of IS&T Academic Advising Office at 402/554-3819.
10. **Students must obtain a grade of "C-" or better in each class for the purpose of meeting general education, Departmental, and College requirements. A minimum cumulative GPA of 2.5 is required by the College of Information Science and Technology.**
11. Students must complete an online Application for Degree form through Mavlink on or before the deadline during the semester in which they plan to graduate. An Application for Degree fee is payable at the time the application is submitted. Students should visit the UNO Bookstore as soon as possible after submitting the degree application to order a cap and gown and graduation announcements. Deadlines to order graduation items vary depending on the ceremony in which the student plans to participate. Please contact the UNO Bookstore at 402/554-2336 with any questions.

UNIVERSITY GENERAL EDUCATION REQUIREMENTS FOR THE BITI DEGREE Fundamental Academic Skills, Distribution, and Diversity Requirements

Fundamental Academic Skills - 15 hours (Grade of C- or better required)

See an IS&T advisor regarding placement requirements in English and Math courses.

English and Writing

9 Credit Hours

- ENGL 1150* English Composition I (or equivalent) 3 credit hrs
- ENGL 1160* English Composition II (or equivalent) 3 credit hrs
- CIST 3000 Advanced Comp for IS&T 3 credit hrs

* For students testing into ENGL 1150, the nine-hour requirement is satisfied by completing ENGL 1150 or 1154; ENG 1160 or 1164 and CIST 3000. For students testing into ENGL 1160, the nine-hour requirement is satisfied by completing ENGL 1160, CIST 3000 and applying for retroactive credits for ENG 1150. For students testing proficient on the English Placement Examination, the nine-hour requirement is satisfied by completing CIST 3000 and applying for retroactive credits for ENG 1150 and ENG 1160.

Public Speaking

- CMST 1110 Public Speaking Fundamentals OR 3 Credit Hours
CMST 2120 Argumentation and Debate

Mathematics

3 Credit Hours

- MATH 1310 Intermediate Algebra (may test out)

University Distribution Requirements – 25 hours (Grade of C- or better is required)

See UNO's general education website for a list of approved courses <http://gened.unomaha.edu/approvedcourses.php>

Natural & Physical Sciences (7 hours from at least two disciplines)

Understanding the nature of scientific inquiry and the operation of the natural, physical, and technological world is essential for making personal and public policy decisions. Students must complete 8 credit hours of course work representing at least two different disciplines in this category with at least one laboratory course.

Successful students shall be able to do the following:

- demonstrate a broad understanding of the fundamental laws and principles of science and interrelationships among science and technology disciplines
- demonstrate a broad understanding of various natural phenomena that surround and influence our lives
- describe how scientists approach and solve problems including an understanding of the basic components and limitations of the scientific method
- solve problems and draw conclusions based on scientific information and models, using critical thinking and qualitative and quantitative analysis of data and concepts in particular to distinguish reality from speculation.

Humanities/Fine Arts (9* hours from at least two disciplines)

Understanding the meaning, value, and history of human existence is an essential skill for living in contemporary society. One must have an understanding and appreciation of the various forms of humanistic/artistic expression and the role these artifacts play across various cultures. Students must complete 9 credit hours of coursework representing at least two different disciplines in this category.

Successful students shall be able to do the following:

- analyze representative texts, artifacts, and/or essential elements of the relevant discipline
- recognize and articulate the diversity of human experience across a range of historical periods and global societies
- describe and evaluate ways in which humanistic/artistic expression throughout the ages expresses the culture and values of time and place

- demonstrate an understanding of the value and role of literature, history, language, philosophy and/or the arts as they impact academic career or community life.

* CIST 3110 IT Ethics applies to both College of IS&T Core and Humanities requirements

Social Sciences (9* hours from at least two disciplines)

The goal of the social sciences is to help students understand the social dynamics that make up the world, particularly the relationships between individuals, groups, societies and social institutions. Students must complete 9 credit hours of coursework representing at least two different disciplines in this category.

Successful students shall be able to do the following:

- understand the diversity of human motivations and institutional forces that influence social behavior
- develop analytical and critical thinking skills as applied to the study of the social sciences
- recognize multiple methods and modes of inquiry used in the social sciences and their appropriate application
- communicate ideas and explain concepts and analyses using the language of the social sciences.

* CIST 2100 applies to both College of IS&T Core and Social Sciences requirements

University Diversity requirements - 6 hours (Grade of C- or better is required)

See UNO's general education website for a list of approved courses <http://gened.unomaha.edu/approvedcourses.php>

Global Diversity (3* hours)

Courses in this category focus on significant cultural, economic, geographical, historical, political, and/or sociological aspects of one or more countries or nations (including indigenous nations) other than or in comparison to the United States. Students must complete 3 credit hours of coursework.

Successful students shall be able to do the following:

- recognize the environmental and historical circumstances that produce different social and cultural systems
- demonstrate specific knowledge of the cultural, historical, social, economic, and/or political aspects of one or more countries other than the United States
- explain the interrelations among global economic, political, environmental and social systems
- explain ways in which identity is developed and how it is transmitted within and by members of the group or groups.

* IASC 1100 applies towards College of IS&T Core and Global Diversity requirements

United States Diversity (3 hours)

This requirement develops students' awareness and appreciation of the history, society, and/or culture of one or more underrepresented groups in the United States. Students must complete 3 credit hours of coursework.

Successful students shall be able to do the following:

- demonstrate knowledge of the role and contributions of one or more underrepresented groups in the development of the United States
- recognize and articulate differences, expectations, and/or challenges experienced by one or more underrepresented groups
- demonstrate specific knowledge of the cultural, historical, social, economic, and/or political factors that shape the interaction of a diverse group or groups within society
- explain ways in which identity is developed and how it is transmitted within and by members of the group or groups.

IT INNOVATION Major Requirements

GENERAL REQUIREMENTS

A minimum of 89 credit hours must be taken including:

- 45 hours of IT courses
- 33 Area of Emphasis hours (Approval of Undergraduate Program Committee required prior to course enrollment)
- 6 hours of Mathematics courses
- 5 hours of elective/prerequisite courses

IT COURSES (45 hours)

IASC	1100*	Introduction to Information Assurance
ITIN	1110	Introduction to IT Innovation
CIST	1400	Introduction to Computer Programming
CIST	1404*	Introduction to Computer Programming Lab
CSCI	1620	Introduction to Computer Science II
CSCI	2240	Introduction to C Programming
CIST	2100*	Organizations, Applications, and Technology
ITIN	2220	Applied IT Innovation
CIST	2500	Introduction to Applied Statistics for IS&T
CIST	3110*	IT Ethics
ITIN	3330	Mobile Software Design and Development
ISQA	3310	Managing the Database Environment
ITIN	4440	Agile Development Methods
ITIN	4880	Systems Simulation and Modeling
ITIN	4980	Information Technology Innovation Capstone Project Part I
ITIN	4990	Information Technology Innovation Capstone Project Part II

**IASC 1100 fulfills both a College of IS&T Core requirement and the University's Global Diversity requirement; CIST 1404 is optional; CIST 2100 fulfills a College of IS&T Core requirement and a Social Sciences requirement; CIST 3110 IT Ethics fulfills both a College of IS&T Core requirement and a Humanities requirement.*

AREA OF EMPHASIS (33 hours)

Approval of ITIN Undergraduate Program Committee (UPC) required prior to enrollment in classes.

MATHEMATICS COURSES (6 hours)

MATH	1930	Calculus for the Managerial, Life and Social Sciences OR
MATH	1950	Calculus I
MATH	2030	Discrete Mathematics

BACHELOR OF SCIENCE IN IT INNOVATION (BITI)

SUGGESTED COURSE SEQUENCE

FRESHMAN YEAR				SOPHOMORE YEAR			
Fall Semester		Spring Semester		Fall Semester		Spring Semester	
ENGL 1150	3	ENGL 1160	3	CSCI 2240	3	ITIN 2220	3
ITIN 1110	3	CSCI 1620	3	CMST 1110	3	Social Science	3
CIST 1400	3	MATH 2030	3	CIST 2500	3	CIST 3110	3
MATH 1930/50	3/5	CIST 2100	3	IASC 1100/Div	3	ISQA 3310	3
Elective	2	Humanities	3	Nat/Phys Sci	4	Nat/Phys Sci	3
TOTAL	14/16	TOTAL	15	TOTAL	16	TOTAL	15

JUNIOR YEAR				SENIOR YEAR			
Fall Semester		Spring Semester		Fall Semester		Spring Semester	
CIST 3000	3	ITIN 4440	3	ITIN 4980	3	ITIN 4990	3
Humanities	3	Area of Emphasis	3	Area of Emphasis	3	Area of Emphasis	3
Area of Emphasis	3	Area of Emphasis	3	Area of Emphasis	3	Area of Emphasis	3
Soc Sci/Div	3	Area of Emphasis	3	Area of Emphasis	3	Area of Emphasis	3
ITIN 3330	3	Area of Emphasis	3	ITIN 4880	3	Elective	3
TOTAL	15	TOTAL	15	TOTAL	15	TOTAL	15

SECOND BS DEGREE IN IT INNOVATION

General Requirements

Students who have satisfied the requirements for a first baccalaureate degree other than IT Innovation at the University of Nebraska at Omaha must complete a minimum of 30 additional semester hours at the University for a second baccalaureate degree.

IT Innovation Requirements (84 hours)

To obtain IT Innovation as a second Bachelor's degree, students must complete academic requirements for the degree which include:

- 45 hours of IT courses
- 33 Area of Emphasis hours (Approval of Undergraduate Program Committee required prior to course enrollment)
- 6 hours of Mathematics courses

Students must consult an academic advisor prior to starting this program. Some transfer coursework may apply; however, 30 of the last 36 hours must be University of Nebraska at Omaha courses.

MINOR IN IT INNOVATION

General Requirements

A minor in IT Innovation may be earned by completing 21 hours, consisting of the following*:

IT CORE COURSES (12 hours)

ITIN	1110	Introduction to IT Innovation
ITIN	2220	Applied IT Innovation
CIST	1400	Introduction to Computer Programming
CIST	3110	IT Ethics

ELECTIVES (9 hours to include 6 hours of 3xxx level courses or above)

This list is not exhaustive; other courses must be approved by the ITIN UPC.

ITIN	2150	Audio for Multimedia
ITIN	3100	Music Informatics
ITIN	3330	Mobile Software Design and Development
ITIN	4090	Principles of Collaboration
ITIN	4440	Agile Development Methods
ART	3140	Computer Generated Imagery
ART	3150	Video Art
ART	3160	Game Design as Art
ART	3170	Digital Game Design
ART	4180	Advanced Digital Game Design
CSCI	2850	Programming on the Internet
CSCI	4260	User Interface Design and Development
ISQA	3310	Managing the Database Environment
ISQA	3400/	Business Data Communications OR
CSCI	3550	Communication Networks
ISQA	3520	Graphical User Interface Design
MGMT	3710	Entrepreneurial Foundations
MGMT	3720	Entrepreneurial Planning
MUS	3170	Introduction to Music Technology
MUS	3180	Digital Synthesis
MUS	4200	Audio Recording Techniques I
MUS	4210	Audio Recording Techniques II

* Students are accountable for all pre-requisites of courses list

NAME:

STUDENT ID#:

LAST UPDATED:

MINOR in IT INNOVATION

This matriculation form corresponds with UNO Catalog 2015-2016.
Last update: March 2015

Course #	Course Name	Grade	Cr	Notes
CORE COURSES (12 HRS)				
ITIN 1110	Intro to ITIN			
ITIN 2220	Applied IT Innovation			
CIST 1400	Intro to Comp Prgrm			
CIST 1404*	Intro to Comp Prgrm Lab			
CIST 3110	IT Ethics			
* Optional				
ELECTIVE COURSES (9 HRS)				
ITIN 2150	Audio for Multimedia			
ITIN 3100	Music Informatics			
ITIN 3330	Mobile Software Des/Dev			
ITIN 4090	Princ of Collaboration			
ITIN 4440	Agile Development Methods			
ART 3140	Comp Generated Imagery			
ART 3150	Video Art			
ART 3160	Game Design as Art			
ART 3170	Digital Game Design			
ART 4180	Adv Digital Game Design			
CSCI 2850	Prgrm on the Internet			
CSCI 4260	User Interface Des/Dev			
ISQA 3310	Mng the DB Environment			
ISQA 3400	Business Data Comm OR			
CSCI 3550	Communication Networks			
ISQA 3520	GUI Design			
MGMT 3710	Entrepreneurial Foundations			
MGMT 3720	Entrepreneurial Planning			
MUS 3170	Intro to Music Technology			
MUS 4200	Audio Record Techniques I			
MUS 4210	Audio Record Techniques II			
Remaining:	21	Compl:	0	