INFORMATION TECHNOLOGY, B.S. (ALTOONA)

Begin Campus: Any Penn State Campus

End Campus: Altoona

Program Description

This degree is a new broad based technical and theoretical degree that will prepare students to implement and use information technology to realize a variety of goals within and between all types of organizations and businesses (e.g., reliability, accessibility, efficiency, cost reduction, and revenue enhancement). The emphasis is on providing the student with the theoretical frameworks needed to use information technology to solve problems while also providing a set of applied, real-world experiences. Students will acquire a broad set of skills across many areas of information technology, including programming and systems development, networking, databases, project management, and information security. Students will consider how the implementation of information technology in organizations affects social change and the delivery of information to the consumer. Upper-level course selections allow for specific advanced options including but not limited to application development, networking, cybersecurity, and business. Project-oriented, team-based projects that include significant writing and presentation components will be integrated throughout the curriculum.

Application Development Option

Available at the following campuses: Abington, Altoona, Beaver, Berks, Brandywine, Lehigh Valley, Schuylkill, Scranton, York

This option prepares students for the design and development of complex object-oriented programming and technical skills to succeed in a fast-paced development and operations environment.

Business Applications Option

Available at the following campuses: Abington, Altoona, Beaver, Berks, Brandywine, DuBois, Greater Allegheny, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, York

This option prepares students to pursue careers in Information technology solving business organizational problems with an emphasis on the systems processes and business operations integration.

Custom Information Technology Option

Available at the following campuses: Altoona, Berks, Brandywine, Greater Allegheny, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, Wilkes-Barre, York

This option provides the opportunity for students to pursue an approved information technology interdisciplinary or exploratory program of study.

Cybersecurity Option

Available at the following campuses: Altoona, Beaver, Berks, Brandywine, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, York

This option will provide students with the knowledge and cyber defense skills needed to critically assess and respond to modern information security threats. They will be prepared to protect information infrastructure and data from attacks and unauthorized access.

Networking Option

Available at the following campuses: Abington, DuBois, Mont Alto

This option prepares students to pursue careers in the design, development, and support of complex networks and networking infrastructure.

Security and Risk Analysis Option

Available at the following campuses: Altoona, Berks, Brandywine, Lehigh Valley, Schuylkill

This option prepares students to address the current and emerging security and risk challenges that face individuals, organizations and our nation, over a variety of domains including national/homeland security, emergency and disaster management, law and crime, and enterprise risk management.

What is Information Technology?

Information Technology offers both broad organizational problem-solving skills and in-depth knowledge in current in-demand technical skills. Using technology to leverage organizational resources and address organizational challenges are at the forefront of the B.S. degree in Information Technology. The program includes required and optional courses in cybersecurity, databases, computer programming, project management, security and risk analysis, networking, web design and development, application development, and systems analysis. This broad base of skills is ideally suited for entry-level positions in all the above content areas.

You Might Like This Program If...

- · You enjoy technology and working with others to build solutions.
- You want to create high-tech solutions to organizational and societal challenges.
- · You are interested in application development and programming.
- You are interested in improving computer systems and enhancing their safety for individuals and corporations.
- You want to leverage current and emerging technologies to improve business processes.

Entrance to Major

To be eligible for entrance to the B.S. in Information Technology major, students must:

- achieve a minimum cumulative grade point average of 2.00
- complete the following entrance-to-major courses with grades of C or better
 - · IST 110 or CYBER 100 or CYBER 100S
 - · IST 140 or CMPSC 121 or CMPSC 131
 - IST 210
 - IST 220

Degree Requirements

For the Bachelor of Science degree in Information Technology, a minimum of 120 credits is required:

Requirement	Credits
General Education	45
Electives	7-9
Requirements for the Major	87-89

21 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 9 credits of GWS courses; 6 credits of GQ courses; and 6 credits of GS courses.

Requirements for the Major

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Common	Requirements	for the	: Major	(All O	ptions)
Code	Title				

Code	litle Ci	redits		
Prescribed Cours	es			
Prescribed Courses: Require a grade of C or better				
ETI 461	Database Management and Administration	3		
IST 210	Organization of Data	3		
IST 220	Networking and Telecommunications	3		
IST 230	Language, Logic, and Discrete Mathematics	3		
IST 242	Intermediate & Object-Oriented Application Development	3		
IST 256	Programming for the Web	3		
IST 260W	Introduction to Systems Analysis and Design	3		
IST 302	IT Project Management	3		
IST 331	Foundations of Human-Centered Design	3		
IST 440W	Information Sciences and Technology Integration and Problem Solving	3		
IST 495	Internship			
SRA 111	Introduction to Security and Risk Analysis	;		
SRA 221	Overview of Information Security	;		
Additional Course	es			
Select one of the	following:	;		
ECON 102	Introductory Microeconomic Analysis and Policy			
ECON 104	Introductory Macroeconomic Analysis and Policy			
PLSC 1	American Politics: Principles, Processes and Powers			
PLSC 14	International Relations			
PSYCH 100	Introductory Psychology			
SOC 5	Social Problems			
Additional Courses	s: Require a grade of C or better			
ENGL 15	Rhetoric and Composition	;		
or ENGL 30H	Honors Rhetoric and Composition			
ENGL 202C	Effective Writing: Technical Writing	;		
or ENGL 202D	Effective Writing: Business Writing			
MATH 110	Techniques of Calculus I	4		
or MATH 140	Calculus With Analytic Geometry I			
Select one of the	following:	;		
CAS 100A	Effective Speech			
CAS 100B	Effective Speech			
CAS 100C	Effective Speech			

Select one of the	following:	3
CMPSC 121	Introduction to Programming Techniques	
CMPSC 131	Programming and Computation I: Fundamentals	
IST 140	Introduction to Application Development	
Select one of the	following:	3
CYBER 100	Computer Systems Literacy	
CYBER 100S	Computer Systems Literacy	
IST 110	Information, People and Technology	
Select one of the	following:	4
DS 200	Introduction to Data Sciences	
STAT 200	Elementary Statistics	
SCM 200	Introduction to Statistics for Business	
Select one of the	following: ¹	3-4
ACCTG 211	Financial and Managerial Accounting for Decision Making	
BA 100	Introduction to Business	
ECON 102	Introductory Microeconomic Analysis and Policy 2	
ECON 104	Introductory Macroeconomic Analysis and Policy	2
MGMT 301	Basic Management Concepts	
MKTG 301	Principles of Marketing ²	
Select one of the	following: ¹	3
CYBER 262	Cyber-Defense Studio	
IST 226	Networking Essentials	
IST 451	Network Security	
IST 454	Computer and Cyber Forensics	
Requirements for	the Option	
Select an option	1	8-19

These courses may not double count with other additional or option requirements.

Requirements for the Option

College approved list.

Credits

Application Development Option (18 credits)

Available at the following campuses: Abington, Altoona, Beaver, Berks, Brandywine, Lehigh Valley, Schuylkill, Scranton, York

	,, g g ,,			
Code	Title	Credits		
Additional Cou	irses			
Additional Cour	rses: Require a grade of C or better			
Select 12 cred following:	its, with at least 3 credits at the 400 level, from the	12		
IST 261	Application Development Design Studio I			
IST 311	Object-Oriented Design and Software Application	ons		
IST 361	Application Development Design Studio II			
IST 411	Distributed-Object Computing			
IST 412	The Engineering of Complex Software Systems			
IST 413	Usability Engineering			
Supporting Co	urses and Related Areas			
Supporting Cou	ırses and Related Areas: Require a grade of C or better			
Select 6 credit	s at the 300 or 400 level in Advanced IT courses fro	m 6		

² Course does not require a grade of C or better.

Business Applications Option (19 credits)

Available at the following campuses: Abington, Altoona, Beaver, Berks, Brandywine, DuBois, Greater Allegheny, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, York

Code	Title	Credits
Prescribed Cours	es	

ACCTG 211	Financial and Managerial Accounting for Decision	4
	Making	
Additional Course		

Additional Courses

Additional Courses: Require a grade of C or better

Prescribed Courses: Require a grade of C or better

Select on	e of the followir	ıg: ¹ 3
FIN 30	1 Corpoi	ation Finance
MGMT	301 Basic	Management Concepts
MKTG	301 Princip	oles of Marketing
SCM 3	01 Supply	Chain Management

Supporting Courses and Related Areas

Supporting Courses and Related Areas: Require a grade of C or better
Select 6 credits from ACCTG, BA, BLAW, EBF, ECON, ENTR, FIN, FINSV,
HPA, IB, LER, MIS, MGMT, MKTG, RM, SCM, or STAT, including 3
credits at the 400-level.

Select 3 credits at the 300 or 400 level in Advanced IT Business courses from College-approved list.

Select 3 credits at the 300 or 400 level in Advanced IT courses from College-approved list.

Custom Information Technology Option (18 credits)

Available at the following campuses: Altoona, Berks, Brandywine, Greater Allegheny, Hazleton, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, Wilkes-Barre, York

Code	Title	Credits
Supporting	Courses and Related Areas	

Supporting Courses and Related Areas: Require a grade of C or better

Select 12 credits, with at least 3 credits at the 400 level, in

12 consultation with an adviser that follow a coherent theme in information technology.

Select 6 credits at the 300 or 400 level in Advanced IT courses from College-approved list.

Cybersecurity Option (18 credits)

following:

Available at the following campuses: Altoona, Beaver, Berks, Brandywine, Lehigh Valley, Mont Alto, New Kensington, Schuylkill, Scranton, York

Code	Title	Credits
Additional Course	es	
Additional Courses	s: Require a grade of C or better	
Select 12 credits,	with at least 3 credits at the 400 level, from the	12

3	
CYBER 262	Cyber-Defense Studio
IST 451	Network Security
IST 454	Computer and Cyber Forensics
IST 456	Information Security Management
SRA 472	Integration of Privacy and Security

Any 300 or 400 Level CYBER Course

Supporting Courses and Related Areas

Supporting Courses and Related Areas: Require a grade of C or better
Select 6 credits at the 300 or 400 level in Advanced IT courses from
College-approved list.

Networking Option (18 credits)

Available at the following campuses: Abington, DuBois, Mont Alto

С	ode	Title	Credits
Α	dditional Course	es	
A	dditional Courses	s: Require a grade of C or better	
	elect 12 credits, ollowing:	with at least 3 credits at the 400 level, from the	12
	CYBER 262	Cyber-Defense Studio	
	IST 225	PC Hardware Basics	
	IST 226	Networking Essentials	
	IST 227	Network Administration	
	IST 228	Advanced Network Administration	
	IST 451	Network Security	
	IST 454	Computer and Cyber Forensics	
_			

Supporting Courses and Related Areas

3

3

6

Supporting Courses and Related Areas: Require a grade of C or better

Select 6 credits at the 300 or 400 level in Advanced IT courses from

College-approved list.

Security and Risk Analysis Option (18 credits)

Available at the following campuses: Altoona, Berks, Brandywine, Lehigh Valley, Schuylkill

Code	Title	Credits
Additional (Courses	

Additional Courses: Require a grade of C or better
Select 12 credits, with at least 3 credits at the 400 level, from the following:

following:	
IST 432	Legal and Regulatory Environment of Information Science and Technology
IST 452	Legal and Regulatory Environment of Privacy and Security
IST 456	Information Security Management
SRA 211	Threat of Terrorism and Crime
SRA 231	Decision Theory and Analysis
SRA 311	Risk Analysis in a Security Context
SRA 365	Statistics for Security and Risk Analysis

Supporting Courses and Related Areas

Supporting Courses and Related Areas: Require a grade of C or better
Select 6 credits at the 300 or 400 level in Advanced IT courses from
College-approved list.

General Education

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements

Option courses may not double count with other requirements.

of a program. For additional information, see the General Education Requirements (https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

Foundations (grade of C or better is required and Inter-Domain courses do not meet this requirement.)

· Quantification (GQ): 6 credits

· Writing and Speaking (GWS): 9 credits

Breadth in the Knowledge Domains (Inter-Domain courses do not meet this requirement.)

· Arts (GA): 3 credits

· Health and Wellness (GHW): 3 credits

· Humanities (GH): 3 credits

· Social and Behavioral Sciences (GS): 3 credits

· Natural Sciences (GN): 3 credits

Integrative Studies

· Inter-Domain Courses (Inter-Domain): 6 credits

Exploration

- · GN, may be completed with Inter-Domain courses: 3 credits
- GA, GH, GN, GS, Inter-Domain courses. This may include 3 credits
 of World Language course work beyond the 12th credit level or the
 requirements for the student's degree program, whichever is higher: 6
 credits

University Degree Requirements

First Year Engagement

All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

Cultures Requirement

6 credits are required and may satisfy other requirements

United States Cultures: 3 creditsInternational Cultures: 3 credits

Writing Across the Curriculum

3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits

A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

Quality of Work

Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

Limitations on Source and Time for Credit Acquisition

The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80)). For more information, check the Suggested Academic Plan for your intended program.

Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

Altoona

David Barnes

Teaching Professor, Information Sciences and Technology Penn Building, 212C Altoona, PA 16601 814-949-5275 drb21@psu.edu

Abington

June Lane

IT Program Chair, Lecturer 1600 Woodland Road Abington, PA 19001 215-881-7509 jul62@psu.edu

Beaver

Richard Lomotey

Assistant Professor, Information Sciences and Technology 100 University Dr. Monaca, PA 15061 724-773-3814 rkl5137@psu.edu

Berks

Tricia Clark

Assistant Teaching Professor and Program Chair Gaige 211 Reading, PA 19610 610-396-6349 BKInfoTech@psu.edu

Brandywine

Nannette D'Imperio

Lecturer in Computer Science 25 Yearsley Mill Road Media, PA 19063 610-892-1343 nxd13@psu.edu

DuBois

Jason Long

Assistant Teaching Professor 1 College Place DuBois, PA 16823 814-372-3000 jel115@psu.edu

Greater Allegheny

Lawrence M. Dupak

Program Coordinator of Information Technology and Lecturer of Information Sciences and Technology
Frable Building, 201D
4000 University Drive
McKeesport, PA 15132
412-675-9482
Imd347@psu.edu

Hazleton

Barbara Brazon

Assistant Teaching Professor of Information Sciences and Technology Kostos 117 Hazleton, PA 18202 570-450-3089 bxb30@psu.edu

Lehigh Valley

Kermit Burley

Coordinator of Information Technology 2809 Saucon Valley Road Center Valley, PA 18034 610-285-5071 kmb6846@psu.edu

Mont Alto

Elizabeth Denlea

Lecturer and Program Coordinator of IT 006 Bookstore 1 Campus Drive Mont Alto, PA 17237 717-749-6048 ebd5343@psu.edu

New Kensington

Hal Smith

Associate Professor, Information Sciences and Technology 036 Theater & IST Building 3550 Seventh Street Road New Kensington, PA 15068 724-334-6089 hhs10@psu.edu

Schuylkill

Brian Gardner

Lecturer, Information Sciences and Technology 200 University Dr Schuylkill Haven, PA 17972 570-385-6076 bkg113@psu.edu

Scranton

Debra Smarkusky

Associate Professor and Program Co-Coordinator, IST 114B Dawson 120 Ridge View Drive Dunmore, PA 18512 570-963-2593 dls102@psu.edu

Wilkes-Barre

Wei-Fan Chen

Associate Professor and Program Coordinator, IST 44 University Drive Dallas, PA 18612 570-675-9142 weifan@psu.edu

York

Bill Cantor

Assistant Teaching Professor in Information Sciences and Technology 1031 Edgecomb Ave.

York, PA 17403 717-771-4143 wpc2@psu.edu

Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2024-25 academic year. To access previous years' suggested academic plans, please visit the archive (https://bulletins.psu.edu/undergraduate/archive/) to view the appropriate Undergraduate Bulletin edition.

Advanced IT Selection - All Options

As noted in each Suggested Academic Plan below, all options of the Information Technology, B.S. major require students to select 300 or 400 level Advanced IT courses from a College-approved list. Students in the Business Application option must select 3 credits of these Advanced IT courses. Students in all other options must select 6 credits of these Advanced IT courses. The list of Advanced IT courses that all students may choose from includes the following:

Code	Title	Credits
IST 402	Emerging Issues and Technologies	3
IST 413	Usability Engineering	3
IST 425	New Venture Creation	3
IST 431	The Information Environment	3
IST 446	An Introduction to Building Computer/Video Games	3
IST 454	Computer and Cyber Forensics	3

IST 456	Information Security Management	3
MIS 390	Foundations of Information Systems	3
MIS 404	Introduction to ERP and Business Processes	3
IST 301	Information and Organizations	3
IST 420	Fundamentals of Systems and Enterprise Integration	3
IST 421	Advanced Enterprise Integration: Technologies and Applications	3
IST 432	Legal and Regulatory Environment of Information Science and Technology	3
IST 452	Legal and Regulatory Environment of Privacy and Security	3

Information Technology, B.S. at Altoona Campus

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

First Year			
Fall	Credits Spring	Credits	
ENGL 15 or 30H (GWS) [‡]	3 CAS 100 (GWS) [‡]	3	
IST 110 or CYBER 100*#	3 MATH 110 or 140 (GQ) [‡]	4	
IST 140*# or CMPSC 121 (GQ) ^{#‡} or CMPSC 131 ^{*#}	3 IST 220 ^{*#}	3	
SRA 111 (GS)*†	3 IST 242*	3	
First-Year Seminar (IST 111S)	1 General Education Course (GN or GA or GH)	3	
General Education Course (GN or GA or GH) or Elective	3		
	16	1.0	

	16	16
Second Year		
Fall	Credits Spring	Credits
Business Selection*	3 IST 210 ^{*#}	3
SRA 221*	3 IST 230 [*]	3
STAT 200 [‡] (GQ) or SCM 200 [‡] (GQ) or DS 200 [*]	4 IST 256 [*]	3
ECON 102/ ECON 104 or PSYCH 100/ SOC 5 or PLSC 1/PLSC 14 (GS) [†]	3 ENGL 202C or 202D (GWS) [‡]	3

Third Year Fall	Elective or General Education Course (GN/GA/ GH)	3 General Education Course (GN or GA or GH)	3	
Fall Credits Spring Credits Summer Credits IST 302* 3 IST 260W* 3 IST 495* 1 IST 331* 3 Option 2* 3 Option 1* 3 Networking Selection* 3 General 3 Advanced IT Selection 1* 3 Education Course (GN or GA or GH) 5 Education Course (GN or GA or GH) Fourth Year 5 Is 1 Fourth Year 5 Is 1 Fall Credits Spring Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education 0 Business IT 0 Course (GHW) Selection 2* 3 Elective 3 General 3 Education Course (GN or GA or GH) 3		16	15	
IST 302* 3 IST 260W* 3 IST 495* 1	Third Year			
IST 331* 3 Option 2* 3	Fall	Credits Spring	Credits Summer	Credits
Option 1* 3 Networking Selection* 3 General 3 Advanced IT Selection 1* 3 Education Course (GN or GA or GH) 3 General Selection 1* 3 General Education Course (GN or GA or GH) 5 Course (GN or GA or GH) 5 Tourth Year Fall Credits Spring Credits Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General General General Selection 2* 3 General Selection 2* Elective Selection 2* 3 General Selection Course (GN or GA or GH)	IST 302*	3 IST 260W*	3 IST 495 [*]	1
Selection* General 3 Advanced IT 3 Education Selection 1* Course (GN or GA or GH) General 3 General 3 Education Course (GN or GA or GH) 15 15 15 1 Fourth Year Fall Credits Spring Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)	IST 331*	3 Option 2*	3	
Education Selection 1* Course (GN or GA or GH) General 3 General 3 Education Course (GN or GA or GH) 15 15 15 Fourth Year Fall Credits Spring Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)	Option 1*		3	
Education Course (GN or GA or GH) 15 15 15 Fourth Year Fall Credits Spring Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General Education Course (GHW) Selection 2* Elective 3 General Education Course (GN or GA or GH)	Education Course (GN or		3	
Fourth Year Fall Credits Spring Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)	Education Course (GN or	Education Course (GN or	3	
Fall Credits Spring Credits ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)		15	15	1
ETI 461* 3 IST 440W* 3 Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General Education Course (GN or GA or GH)	Fourth Year			
Option 3* 3 Option 4* 3 General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)	Fall	Credits Spring	Credits	
General 3 Advanced IT 3 Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)	ETI 461*	3 IST 440W*	3	
Education or Business IT Course (GHW) Selection 2* Elective 3 General 3 Education Course (GN or GA or GH)	Option 3*	3 Option 4 [*]	3	
Education Course (GN or GA or GH)	Education	or Business IT	3	
Elective 2	Elective	Education Course (GN or GA or GH)	3	
		Elective	2	

Total Credits 120

- * Course requires a grade of C or better for the major
- ‡ Course requires a grade of C or better for General Education

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Course is an Entrance to Major requirement

12

† Course satisfies General Education and degree requirement

University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

Advising Notes:

- · Business Selection Courses (cannot double count with other Additional or Option requirements):
 - ACCTG 211
 - BA 100
 - ECON 102
 - FCON 104
 - MGMT 301
 - MKTG 301
- · Networking Selection Courses (cannot double count with other Additional or Option requirements):
 - CYBER 262
 - IST 226
 - IST 451
 - IST 454
- · Option Courses:
 - · Application Development:
 - · Select 12 credits, with at least 3 credits at the 400 level from: IST 261, IST 311, IST 361, IST 411, IST 412, IST 413
 - · Business Applications:
 - ACCTG 211
 - · Select 3 credits from: FIN 301, MGMT 301, MKTG 301, SCM 301
 - · Select 6 credits, with at least 3 credits at the 400 level from: ACCTG, BA, BLAW, EBF, ECON, ENTR, FIN, FINSV, HPA, IB, LER, MIS, MGMT, MKTG, RM, SCM, or STAT
 - Cybersecurity:
 - · Select 12 credits, with at least 3 credits at the 400 level from: CYBER 262, IST 451, IST 454, IST 456, SRA 472, or any 300 or 400 level CYBER course
 - · Security and Risk Analysis:
 - · Select 12 credits, with at least 3 credits at the 400 level from: SRA 211, SRA 231, SRA 311, SRA 365, IST 432, IST 452, IST 456
 - · Custom:
 - · Select 12 credits, with at least three (3) credits at the 400 level, in consultation with an adviser that follow a coherent theme in information technology
- · Advanced IT Courses (All Options)
 - IST 402
 - IST 413
 - IST 425
 - IST 431
 - IST 446
 - IST 454 • IST 456

 - · MIS 301
 - MIS 390
 - · MIS 404
 - SCM 340
 - IST 432
 - IST 456
- · Advanced IT Business Applications Option Courses
 - IST 425
 - IST 456

- · MIS 301
- · MIS 345
- MIS 390
- MIS 404
- MIS 431
- SCM 340

Career Paths

With a B.S. degree in Information Technology (IT), students will develop an understanding of core information technologies and prepare for the practical application of IT. The combination of a strong technical foundation, well-developed communication and collaborative skills, business core competencies, and specialization in an area of choice produces graduates who are well-qualified to enter the IT workforce in a position that meets their interests and abilities as well as the needs of employers in industries including consulting, business, government, defense, entertainment, and medicine.

Additional information about IT careers can be found at:

- · Computer and Information Technology Occupations: Occupational Outlook Handbook:: U.S. Bureau of Labor Statistics (bls.gov) (https:// www.bls.gov/ooh/computer-and-information-technology/home.htm)
- IS Job Index AIS Temple University Information Systems Job Index (https://isjobindex.com/)

Opportunities for Graduate Studies

A baccalaureate degree in Information Technology prepares students to pursue master's degrees in programs such as information systems or information technology and obtain admission to MBA programs and law schools, among other post-graduate opportunities.

Penn State offers graduate programs related to information technology:

- · Master of Science in Information Systems at Penn State Harrisburg (https://harrisburg.psu.edu/business-administration/informationsystems-ms/)
- · Graduate Education Opportunities at College of Information Sciences and Technology (https://ist.psu.edu/prospective/graduate/)

Contact

Altoona

DIVISION OF BUSINESS, ENGINEERING, AND INFORMATION SCIENCES & **TECHNOLOGY**

Penn Building, 212C Altoona, PA 16601 814-949-5275

drb21@psu.edu

https://altoona.psu.edu/academics/bachelors-degrees/informationtechnology (https://altoona.psu.edu/academics/bachelors-degrees/ information-technology/)

Abington

DIVISION OF SCIENCE AND ENGINEERING 1600 Woodland Road Abington, PA 19001 jul62@psu.edu

https://www.abington.psu.edu/academics/majors-at-abington/information-technology (https://www.abington.psu.edu/academics/majors-at-abington/information-technology/)

Beaver

100 University Dr. Monaca, PA 15061 724-773-3814 rkl5137@psu.edu

https://beaver.psu.edu/academics/majors/it (https://beaver.psu.edu/academics/majors/it/)

Berks

EBC DIVISION Gaige Building Reading, PA 19610 610-396-6349 tkc3@psu.edu

https://berks.psu.edu/academics/baccalaureate-degrees/information-technology (https://berks.psu.edu/academics/baccalaureate-degrees/information-technology/)

Brandywine

25 Yearsley Mill Road Media, PA 19063 610-892-1343 nxd13@psu.edu

https://www.brandywine.psu.edu/academics/bachelors-degrees/information-technology (https://www.brandywine.psu.edu/academics/bachelors-degrees/information-technology/)

DuBois

1 College Place DuBois, PA 16823 814-372-3000 jel115@psu.edu

https://dubois.psu.edu/academics/degrees/IT/bachelor (https://dubois.psu.edu/academics/degrees/IT/bachelor/)

Greater Allegheny

Frable Building, 201D 4000 University Drive McKeesport, PA 15132 412-675-9482 Imd347@psu.edu

https://greaterallegheny.psu.edu/academics/degree-programs/information-technology (https://greaterallegheny.psu.edu/academics/degree-programs/information-technology/)

Hazleton

204 Butler Hazleton, PA 18202 570-450-3194 HNAdvising@psu.edu

https://hazleton.psu.edu/information-technology (https://hazleton.psu.edu/information-technology/)

Lehigh Valley

2809 Saucon Valley Road Center Valley, PA 18034 610-285-5071 kmb6846@psu.edu

https://lehighvalley.psu.edu/academics/degrees/information-sciencesand-technology (https://lehighvalley.psu.edu/academics/degrees/ information-sciences-and-technology/)

Mont Alto

006 Bookstore 1 Campus Drive Mont Alto, PA 17237 717-749-6048 ebd5343@psu.edu

https://montalto.psu.edu/academics/bachelors/information-technology (https://montalto.psu.edu/academics/bachelors/information-technology/)

New Kensington

036 Theater & IST Building 3550 Seventh Street Road New Kensington, PA 15068 724-334-6089 hhs10@psu.edu

https://newkensington.psu.edu/4-year-information-technology (https://newkensington.psu.edu/4-year-information-technology/)

Schuylkill

200 University Drive Schuylkill Haven, PA 17972 570-385-6076 bkq113@psu.edu

https://schuylkill.psu.edu/academics/bacc-degrees/information-technology (https://schuylkill.psu.edu/academics/bacc-degrees/information-technology/)

Scranton

114B Dawson 120 Ridge View Drive Dunmore, PA 18512 570-963-2593 dls102@psu.edu

https://scranton.psu.edu/academics/degrees/bachelors/informationsciences-technology-degree (https://scranton.psu.edu/academics/ degrees/bachelors/information-sciences-technology-degree/)

Wilkes-Barre

44 University Drive Dallas, PA 18612 570-675-9142 weifan@psu.edu

https://wilkesbarre.psu.edu/academics/it (https://wilkesbarre.psu.edu/academics/it/)

York

1031 Edgecomb Ave. York, PA 17403 717-771-4143 wpc2@psu.edu

https://www.york.psu.edu/academics/baccalaureate/information-technology (https://www.york.psu.edu/academics/baccalaureate/information-technology/)