

# INFORMATION SCIENCES AND TECHNOLOGY, A.S. (BERKS)

**Begin Campus:** Berks

**End Campus:** Berks

## Program Description

This associate degree major is structured to prepare graduates for immediate and continuing employment opportunities in the broad disciplines of information science and technology. This includes positions such as application programmers, associate systems designers, network managers, web designers and administrators, or information systems support specialists. Specifically, the major is designed to ensure a thorough knowledge of information systems and includes extensive practice using contemporary technologies in the creation, organization, storage, analysis, evaluation, communication, and transmission of information. The major fosters communications, interpersonal, and group interaction skills through appropriate collaborative and active learning projects and experiences. Technical material covers the structure of database systems, web and multimedia systems, and considerations in the design of information systems. Team projects in most courses, a required internship, and a second-year capstone experience provide additional, focused venues for involving students in the cutting-edge issues and technologies in the field.

The Associate of Science in IST degree will be offered at multiple campuses within the Penn State system of colleges and campuses. Note that not all options will be available at all locations.

## Application Development Option

**Available at the following campuses:** Berks, Greater Allegheny, Hazleton, Mont Alto, Scranton, World Campus, York

The Application Development option prepares students for entry level position in applications development and/or web development. It also prepares students for IST related baccalaureate degrees such as HCDD, IT, ETI, and CYBER. Students take courses such as web development and advanced java programming as well as usability.

## Custom Option

**Available at the following campuses:** Berks, DuBois, Greater Allegheny, Hazleton, Mont Alto, Scranton, Wilkes-Barre, World Campus, York

The Custom option enables students to work closely with an adviser to develop a plan of study that meets the dual objectives of allowing a flexible academic program and a specific theme related to technology. Some examples of themes are web development, psychology, and usability.

## Cybersecurity Option

**Available at the following campuses:** Berks, Greater Allegheny, Mont Alto, World Campus, York

The Cybersecurity option prepares students for an entry level position in the cyber security field. It also prepares students for IST related baccalaureate degrees such as Cybersecurity Analytics and Operations and SRA. Students take introductory courses in CYBER and SRA as well as advanced hand-on courses in these areas.

## Generalized Business Option

**Available at the following campuses:** Berks, DuBois, Greater Allegheny, Mont Alto, Scranton, World Campus, York

The Generalized Business option enables students to specialize in the general business areas of accounting, marketing, and management, and is closely aligned with the requirements of the ETI major.

## Networking Option

**Available at the following campuses:** DuBois, Mont Alto, World Campus

The Networking option prepares graduates for positions as entry-level computer network administrators. Students take courses in personal computer hardware, networking essentials, and network administration.

## What is Information Sciences and Technology?

Information Sciences and Technology is a discipline that explores how we can strengthen the power of information and technology, and use it to increase human potential. This includes focusing on creating innovative systems and technological solutions that benefit businesses, organizations, and individuals, and understanding the role of technology in how we live our lives.

## Entrance to Major

Students must have a minimum 2.0 GPA to change to this Associate degree after admission to the University.

## Degree Requirements

**For the Associate in Science degree in Information Sciences and Technology, a minimum of 60 credits is required:**

| Requirement                | Credits |
|----------------------------|---------|
| General Education          | 21      |
| Electives                  | 0-5     |
| Requirements for the Major | 43-47   |

**6-9 of the 21 credits for General Education are included in the Requirements for the Major. For all options, this includes: 3 credits of GQ courses; 3 credits of GWS courses; 0-3 credits of GS courses. (3 credits of GQ courses in Additional Courses includes MATH 21, MATH 22, MATH 110, SCM 200 or STAT 200) and 3 credits of GWS courses including ENGL 15 or CAS 100 which are Prescribed Courses. Students may also overlap 3 credits of GS if they select SRA 111 in Additional Courses for the Major or if they select ECON 102/ECON 104 in the Generalized Business Option Additional 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 Options)

| Code  | Title            | Credits |
|---|------------------|---------|
| <b>Prescribed Courses</b>                                 |                  |         |
| <i>Prescribed Courses: Require a grade of C or better</i> |                  |         |
| CAS 100   | Effective Speech | 3       |

|          |   |   |
|----------|---|---|
| ENGL 15  | Rhetoric and Composition                    | 3 |
| IST 140  | Introduction to Application Development     | 3 |
| IST 210  | Organization of Data                        | 3 |
| IST 220  | Networking and Telecommunications           | 3 |
| IST 260W | Introduction to Systems Analysis and Design | 3 |

**Additional Courses**

|              |                                      |   |
|--------------|--------------------------------------|---|
| ENGL 202C    | Effective Writing: Technical Writing | 3 |
| or ENGL 202D | Effective Writing: Business Writing  |   |

*Additional Courses: Require a grade of C or better*

|            |  |   |
|------------|--|---|
| IST 250    | Introduction to Web Design and Development | 3 |
| or IST 256 | Programming for the Web                    |   |

Select 3 credits from the following: <sup>1</sup> 3

|            |                           |  |
|------------|---------------------------|--|
| CYBER 100  | Computer Systems Literacy |  |
| CYBER 100S | Computer Systems Literacy |  |

|          |  |  |
|----------|--|--|
| HCDD 113 | Foundations of Human-Centered Design and Development |  |
|----------|--|--|

|           |  |  |
|-----------|--|--|
| HCDD 113S | Foundations of Human-Centered Design and Development FYS |  |
|-----------|--|--|

|         |  |  |
|---------|--|--|
| IST 110 | Information, People and Technology         |  |
| SRA 111 | Introduction to Security and Risk Analysis |  |

Select 1 credit from the following: 1

|          |                          |  |
|----------|--------------------------|--|
| IST 295A | Distributed Team Project |  |
| IST 295B | IST Internship           |  |
| IST 495  | Internship               |  |

Select 3-4 credits from the following: 3-4

|         |  |  |
|---------|--|--|
| MATH 21 | College Algebra with Analytic Geometry with Applications I |  |
|---------|--|--|

|         |  |  |
|---------|--|--|
| MATH 22 | College Algebra With Analytic Geometry and Applications II |  |
|---------|--|--|

|         |   |  |
|---------|---|--|
| MATH 26 | Plane Trigonometry and Applications of Trigonometry |  |
|---------|---|--|

|          |                          |  |
|----------|--------------------------|--|
| MATH 110 | Techniques of Calculus I |  |
|----------|--------------------------|--|

|          |                                   |  |
|----------|-----------------------------------|--|
| MATH 140 | Calculus With Analytic Geometry I |  |
|----------|-----------------------------------|--|

|         |   |  |
|---------|---|--|
| SCM 200 | Introduction to Statistics for Business |  |
|---------|---|--|

|          |                       |  |
|----------|-----------------------|--|
| STAT 200 | Elementary Statistics |  |
|----------|-----------------------|--|

**Supporting Courses and Related Areas**

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

Any first-year seminar course. Students who complete CYBER 100S or HCDD 113S as additional courses do not have to schedule an additional first-year seminar. 0-1

**Requirements for the Option**

*Requirements for the Option: Require a grade of C or better*

Select an option 12-14

<sup>1</sup> Students planning to complete the Cybersecurity option must select CYBER 100/CYBER 100S. Courses may not double count with option requirements.

**Requirements for the Option**  
**Application Development Option (12 credits)**

*Available at the following campuses: Berks, Greater Allegheny, Hazleton, Mont Alto, Scranton, World Campus, York*

| Code | Title | Credits |
|------|-------|---------|
|------|-------|---------|

**Additional Courses**

*Additional Courses: Require a grade of C or better*

Select 12 credits from the following: 12

|         |  |  |
|---------|--|--|
| IST 242 | Intermediate & Object-Oriented Application Development |  |
|---------|--|--|

|         |                                      |  |
|---------|--------------------------------------|--|
| IST 256 | Programming for the Web <sup>1</sup> |  |
|---------|--------------------------------------|--|

|         |   |  |
|---------|---|--|
| IST 261 | Application Development Design Studio I |  |
|---------|---|--|

|         |  |  |
|---------|--|--|
| IST 311 | Object-Oriented Design and Software Applications |  |
|---------|--|--|

|          |  |  |
|----------|--|--|
| HCDD 264 | Design Practice in Human-Centered Design and Development |  |
|----------|--|--|

|            |                                      |  |
|------------|--------------------------------------|--|
| or IST 331 | Foundations of Human-Centered Design |  |
|------------|--------------------------------------|--|

<sup>1</sup> IST 256 may count in the major requirements or the option, but may not double count toward both requirements.

**Custom Option (12 credits)**

*Available at the following campuses: Berks, DuBois, Greater Allegheny, Hazleton, Mont Alto, Scranton, Wilkes-Barre, World Campus, York*

| Code | Title | Credits |
|------|-------|---------|
|------|-------|---------|

**Supporting Courses and Related Areas**

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

Select 12 credits in consultation with an adviser. All courses are C- required. Examples of specific themes include: Web Development, Psychology, Usability. 12

**Cybersecurity Option (12 credits)**

*Available at the following campuses: Berks, Greater Allegheny, Mont Alto, World Campus, York*

| Code | Title | Credits |
|------|-------|---------|
|------|-------|---------|

**Additional Courses**

*Additional Courses: Require a grade of C or better*

Select 12 credits from the following: <sup>1</sup> 12

|           |                      |  |
|-----------|----------------------|--|
| CYBER 262 | Cyber-Defense Studio |  |
|-----------|----------------------|--|

|         |  |  |
|---------|--|--|
| IST 242 | Intermediate & Object-Oriented Application Development |  |
|---------|--|--|

|         |  |  |
|---------|--|--|
| SRA 111 | Introduction to Security and Risk Analysis |  |
|---------|--|--|

|         |                               |  |
|---------|-------------------------------|--|
| SRA 211 | Threat of Terrorism and Crime |  |
|---------|-------------------------------|--|

|         |                                  |  |
|---------|----------------------------------|--|
| SRA 221 | Overview of Information Security |  |
|---------|----------------------------------|--|

<sup>1</sup> Courses may not double count with the major requirements.

**Generalized Business Option (12-14 credits)**

*Available at the following campuses: Berks, DuBois, Greater Allegheny, Mont Alto, Scranton, World Campus, York*

| Code | Title | Credits |
|------|-------|---------|
|------|-------|---------|

**Additional Courses**

*Additional Courses: Require a grade of C or better*

Select 12-14 credits from the following: 12-14

|           |   |  |
|-----------|---|--|
| ACCTG 211 | Financial and Managerial Accounting for Decision Making |  |
|-----------|---|--|

|             |  |  |
|-------------|--|--|
| BA 243      | Social, Legal, and Ethical Environment of Business |  |
| or BLAW 243 | Legal Environment of Business                      |  |

|                         |  |
|-------------------------|--|
| or BA 241<br>& BA 242   | Legal Environment of Business<br>and Social and Ethical Environment of Business                  |
| BA 301<br>or FIN 301    | Finance<br>Corporation Finance   |
| BA 302<br>or SCM 301    | Supply Chains<br>Supply Chain Management   |
| BA 303<br>or MKTG 301   | Marketing<br>Principles of Marketing   |
| BA 304<br>or MGMT 301   | Management and Organization<br>Basic Management Concepts   |
| ECON 102<br>or ECON 104 | Introductory Microeconomic Analysis and Policy<br>Introductory Macroeconomic Analysis and Policy |

### Networking Option (12 credits)

Available at the following campuses: DuBois, Mont Alto, World Campus

| Code  | Title                           | Credits |
|---|---------------------------------|---------|
| <b>Prescribed Courses</b>                                 |                                 |         |
| <i>Prescribed Courses: Require a grade of C or better</i> |                                 |         |
| IST 225   | PC Hardware Basics              | 3       |
| IST 226   | Networking Essentials           | 3       |
| IST 227   | Network Administration          | 3       |
| IST 228   | Advanced Network Administration | 3       |

### 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 associate degree students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (<https://bulletins.psu.edu/undergraduate/general-education/associate-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):** 3 credits
- **Writing and Speaking (GWS):** 3 credits

### Knowledge Domains

- **Arts (GA):** 3 credits
- **Humanities (GH):** 3 credits
- **Social and Behavioral Sciences (GS):** 3 credits
- **Natural Sciences (GN):** 3 credits

**Note:** Up to six credits of Inter-Domain courses may be used for any Knowledge Domain requirement, but when a course may be used to satisfy more than one requirement, the credits from the course can be counted only once.

### Exploration

- **Any General Education course (including GHW and Inter-Domain):** 3 credits

### University Degree Requirements

#### Cultures Requirement

3 credits of United States (US) or International (IL) cultures coursework are required and may satisfy other requirements

#### 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 60 degree credits must be earned for an associate degree. The requirements for some programs may exceed 60 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

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.

### Program Learning Objectives

- **Knowledge/Application:** Understand and apply the interdisciplinary, theoretical knowledge of the information sciences or security sciences
  - Define and explain the core concepts, principles, processes, and theories within the academic majors of IST and/or SRA
  - Apply the core concepts of the academic majors of IST and/or SRA to real-world problems
- **Problem-Solving:** Understand, apply and adapt various problem solving strategies, using appropriate technology and methods
  - Identify information problems and/or opportunities in terms of the human, informational and technology dimensions
  - Analyze issues surrounding the problem and/or opportunity in terms of the human, informational, and technology dimensions; and determine the requirements appropriate to understanding the situation
  - Design systems, architectures, processes, components, or programs to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world)
  - Deploy up-to-date and appropriate techniques, methodologies, and/or tools necessary for understanding opportunities and constraints and/or the optimal design, implementation and continuance of an information based solution
  - Evaluate the success of systems, architecture, processes, components, or programs intended to meet desired needs of the human context at varying levels of analysis (e.g., individual, group, organization, society, and/or world)

- **Communication (Individual and Team):** Communicate and work effectively (both individually and in teams) with a range of perspectives and audiences through a variety of media
  - Participate effectively on teams in order to accomplish a common goal
  - Communicate effectively with a range of audiences, formally or informally, through writing and the spoken word
  - Seek out, analyze, and incorporate diverse ideas and broader perspectives represented in the diversity of people
  - Make respectful and inclusive choices in interacting with customers, peers, supervisors, and/or subordinates with a diversity of identity characteristics (e.g., age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, gender identify, or veteran status)
- **Professional Responsibilities:** Understand professional responsibilities in terms of the ethical, legal, security and social aspects of any given problem and its solution
  - Demonstrate an understanding of the cognitive, social, legal, ethical, diversity, and security perspectives surrounding a given problem
  - Assess the impact of information, computing and technology on individuals, groups, organizations, society, and the world for the purpose of making informed decisions from a sociological, governmental, legal, and/or security perspective
- **Lifelong Learning:** Commit to the continuous acquisition of relevant knowledge for professional development by self-teaching and/or on-going education and learning
  - Employ information-seeking strategies and self-directed learning in pursuit of current knowledge
  - Enroll in professional development and tutoring opportunities

## 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/>)

## Berks

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## University Park

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## Wilkes-Barre

### Wei-Fan Chen

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## World Campus

### Undergraduate Academic Advising

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## York

### Joseph Kasten

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## Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2023-24 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 (*Note: the archive only contains suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin*).

### Application Development Option: Information Sciences and Technology, A.S. at Berks 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 30T (GWS) <sup>‡</sup>                                 | 3 CAS 100A <sup>*</sup>                                   | 3         |
| IST 110, CYBER 100, or SRA 111 <sup>*</sup>                       | 3 IST 220 <sup>*</sup>                                    | 3         |
| IST 140 <sup>*</sup>  | 3 IST 242 (Option Requirement) <sup>*</sup>               | 3         |
| MATH 21, 22, 26, 110, 140, SCM 200, or STAT 200 (GQ) <sup>‡</sup> | 3-4 with: General Education Course (GN or GA or GH or GS) | 3         |
| General Education Course (GN or GA or GH or GS)                   | 3 General Education Course (GN or GA or GH or GS)         | 3         |
| First-Year Seminar (IST 111S recommended)                         | 1   |           |
|   | <b>16-17</b>  | <b>15</b> |
| Second Year   |   |           |
| Fall  | Credits Spring  | Credits   |
| IST 210 <sup>*</sup>  | 3 ENGL 202C or 202D <sup>*</sup>                          | 3         |
| Option Requirement <sup>*</sup>                                   | 3 IST 260W <sup>*</sup>                                   | 3         |
| Option Requirement <sup>*</sup>                                   | 3 IST 250 or 256 <sup>*</sup>                             | 3         |
| General Education Course (GN or GA or GH or GS)                   | 3 IST 295A, 295B, or 495 <sup>*</sup>                     | 1         |
| General Education (Exploration)                                   | 3 Option Requirement <sup>*</sup>                         | 3         |
|   | Elective  | 1         |
|   | <b>15</b>   | <b>14</b> |

#### Total Credits 60-61

- \* Course requires a grade of C or better for the major
- ‡ Course requires a grade of C or better for General Education
- # Course is an Entrance to Major requirement
- † Course satisfies General Education and degree requirement

<sup>1</sup> The following courses are offered Spring Semester only: ENGL 202C, IST 256, IST 260W.

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) and Knowledge Domains (GHW, GN, GA, GH, GS) requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

#### Advising Notes:

- Application Focus Areas (12 credits from each area):
  - Application Development: IST 242, IST 256, IST 261, IST 311, IST 331
  - Business: ACCTG 211, BA 242/BA 243/BA 301/BA 302/BA 303, BLAW 243, FIN 301, ECON 102/ECON 104, MKTG 301, MGMT 301, SCM 301
  - Cybersecurity: SRA 211, CYBER 262, IST 242, SRA 111, SRA 221
  - Custom: A coherent sequence of courses that provides context for the student in terms of IT content.

#### University Requirements and General Education Notes:

## Custom Option: Information Sciences and Technology, A.S. at Berks 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 30T (GWS) <sup>‡</sup>                                 | 3 CAS 100 <sup>*</sup>                            | 3         |
| IST 110, CYBER 100, or SRA 111 <sup>*</sup>                       | 3 IST 220 <sup>*</sup>                            | 3         |
| IST 140 <sup>*</sup>  | 3 IST 250 or 256 <sup>*</sup>                     | 3         |
| MATH 21, 22, 26, 110, 140, SCM 200, or STAT 200 (GQ) <sup>‡</sup> | 3-4 Option Requirement <sup>*</sup>               | 3         |
| General Education Course (GN or GA or GH or GS)                   | 3 General Education Course (GN or GA or GH or GS) | 3         |
| First-Year Seminar (IST 111S recommended)                         | 1   |           |
|   | <b>16-17</b>                                      | <b>15</b> |

### Second Year

| Fall  | Credits Spring                                    | Credits   |
|---|---|-----------|
| IST 210 <sup>*</sup>                            | 3 ENGL 202C or 202D <sup>*</sup>                  | 3         |
| Option Requirement <sup>*</sup>                 | 3 IST 260W <sup>*</sup>                           | 3         |
| Option Requirement <sup>*</sup>                 | 3 Option Requirement <sup>*</sup>                 | 3         |
| General Education Course (GN or GA or GH or GS) | 3 General Education Course (GN or GA or GH or GS) | 3         |
| General Education (Exploration)                 | 3 IST 295A, 295B, or 495 <sup>*</sup>             | 1         |
|   | Elective  | 1         |
|   | <b>15</b>   | <b>14</b> |

### Total Credits 60-61

\* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

# Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

<sup>1</sup> The following courses are offered Spring Semester only: ENGL 202C, IST 256, IST 260W.

### 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) and Knowledge Domains (GHW, GN, GA, GH, GS) requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

### Advising Notes:

- Application Focus Areas (12 credits from each area):
  - Application Development: IST 242, IST 256, IST 261, IST 311, IST 331
  - Business: ACCTG 211, BA 242/BA 243/BA 301/BA 302/BA 303, BLAW 243, FIN 301, ECON 102/ECON 104, MKTG 301, MGMT 301, SCM 301
  - Cybersecurity: SRA 211, CYBER 262, IST 242, SRA 111, SRA 221
  - Custom: A coherent sequence of courses that provides context for the student in terms of IT content.

## Cybersecurity Option: Information Sciences and Technology, A.S. at Berks 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 30T (GWS) <sup>‡</sup>                                 | 3 CAS 100 <sup>*</sup>                        | 3         |
| IST 110, CYBER 100, or SRA 111 <sup>*</sup>                       | 3 IST 220 <sup>*</sup>                        | 3         |
| IST 140 <sup>*</sup>  | 3 IST 250 or 256 <sup>*</sup>                 | 3         |
| MATH 21, 22, 26, 110, 140, SCM 200, or STAT 200 (GQ) <sup>‡</sup> | 3-4 SRA 111 (Option Requirement) <sup>*</sup> | 3         |
| General Education Course (GN or GA or GH or GS)                   | 3 General Education Course (GN or GA or GH)   | 3         |
| First-Year Seminar (IST 111S recommended)                         | 1   |           |
|   | <b>16-17</b>                                  | <b>15</b> |

### Second Year

| Fall                                      | Credits Spring                        | Credits   |
|---|---------------------------------------|-----------|
| IST 210 <sup>*</sup>                      | 3 ENGL 202C or 202D <sup>*</sup>      | 3         |
| Option Requirement <sup>*</sup>           | 3 IST 260W <sup>*</sup>               | 3         |
| Option Requirement <sup>*</sup>           | 3 Option Requirement <sup>*</sup>     | 3         |
| General Education Course (GN or GA or GH) | 3 Elective                            | 3         |
| General Education (Exploration)           | 3 IST 295A, 295B, or 495 <sup>*</sup> | 1         |
|   | Elective                              | 1         |
|   | <b>15</b>                             | <b>14</b> |

### Total Credits 60-61

\* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

# Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

<sup>1</sup> The following courses are offered Spring Semester only: ENGL 202C, IST 256, IST 260W.

### 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) and Knowledge Domains (GHW, GN, GA, GH, GS) requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

### Advising Notes:

- Application Focus Areas (12 credits from each area):
  - Application Development: IST 242, IST 256, IST 261, IST 311, IST 331
  - Business: ACCTG 211, BA 242/BA 243/BA 301/BA 302/BA 303, BLAW 243, FIN 301, ECON 102/ECON 104, MKTG 301, MGMT 301, SCM 301
  - Cybersecurity: SRA 211, CYBER 262, IST 242, SRA 111, SRA 221
  - Custom: A coherent sequence of courses that provides context for the student in terms of IT content.

## Generalized Business Option: Information Sciences and Technology, A.S. at Berks 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 30T (GWS) <sup>‡</sup>                                 | 3 CAS 100 <sup>*</sup>              | 3         |
| IST 110, CYBER 100, or SRA 111 <sup>*</sup>                       | 3 ECON 102 or 104 (GS) <sup>†</sup> | 3         |
| IST 140 <sup>*</sup>  | 3 IST 220 <sup>*</sup>              | 3         |
| MATH 21, 22, 26, 110, 140, SCM 200, or STAT 200 (GQ) <sup>‡</sup> | 3-4 IST 250 or 256 <sup>*</sup>     | 3         |
| General Education Course (GN or GA or GH or GS)                   | 3 Option Requirement <sup>*</sup>   | 3         |
| First-Year Seminar (IST 111S recommended)                         | 1                                   |           |
|   | <b>16-17</b>                        | <b>15</b> |

### Second Year

| Fall  | Credits Spring                                    | Credits   |
|---|---|-----------|
| IST 210 <sup>*</sup>                            | 3 ENGL 202C or 202D <sup>*</sup>                  | 3         |
| Option Requirement <sup>*</sup>                 | 3 IST 260W <sup>*</sup>                           | 3         |
| Option Requirement <sup>*</sup>                 | 3 Option Requirement <sup>*</sup>                 | 3         |
| General Education Course (GN or GA or GH or GS) | 3 General Education Course (GN or GA or GH or GS) | 3         |
| General Education (Exploration)                 | 3 IST 295A, 295B, or 495 <sup>*</sup>             | 1         |
|   | Elective  | 1         |
|   | <b>15</b>   | <b>14</b> |

**Total Credits 60-61**

\* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

# Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

<sup>1</sup> The following courses are offered Spring Semester only: ENGL 202C, IST 256, IST 260W.

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  - Cybersecurity: SRA 211, CYBER 262, IST 242, SRA 111, SRA 221
  - Custom: A coherent sequence of courses that provides context for the student in terms of IT content.

## Contact

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<https://berks.psu.edu/academics/associate-information-sciences-technology> (<https://berks.psu.edu/academics/associate-information-sciences-technology/>)

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### Hazleton

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<https://hazleton.psu.edu/associate-science-information-sciences-technology> (<https://hazleton.psu.edu/associate-science-information-sciences-technology/>)

### Mont Alto

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<https://montalto.psu.edu/academics/associate/associate-information-sciences-and-technology-degree> (<https://montalto.psu.edu/academics/associate/associate-information-sciences-and-technology-degree/>)

### Scranton

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<https://scranton.psu.edu/academics/degrees/associate/ist> (<https://scranton.psu.edu/academics/degrees/associate/ist/>)

### **University Park**

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### **Wilkes-Barre**

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<https://wilkesbarre.psu.edu/academics/ist/associate-degrees> (<https://wilkesbarre.psu.edu/academics/ist/associate-degrees/>)

### **World Campus**

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411 Eric J. Barron Innovation Hub Building  
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<https://www.worldcampus.psu.edu/degrees-and-certificates/penn-state-online-information-sciences-and-technology-associate-in-science-degree>  
(<https://www.worldcampus.psu.edu/degrees-and-certificates/penn-state-online-information-sciences-and-technology-associate-in-science-degree/>)

### **York**

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<https://www.york.psu.edu/academics/associate/information-sciences-and-technology> (<https://www.york.psu.edu/academics/associate/information-sciences-and-technology/>)