

What is Information Systems and Technology?

Information Systems and Technology (IST) professionals apply, develop, modify, manage, and strategize technology to digitally transform organizations and support data-driven decision-making. The effective implementation of information technology is critical for the success of modern business. Business leaders recognize the strategic importance of technology and data assets and rely on IST professionals to drive organizational change and innovation.

At Duquesne, the IST program combines interpersonal skills, management skills, and technical skills to provide students with a firm foundation to become an asset on or lead an IT project team. A key component of IST is working with other business professionals (e.g., accountants, supply chain managers, marketers, financial analysts, technologists, engineers) to create digital solutions that integrate processes and data across the business and solve problems.

An IST professional is responsible for understanding the latest developments in technology and overseeing the efficient and effective implementation of technology resources. A career in IST is simultaneously fast-paced, ever-changing, and people-focused.

Within the IST major, students can choose to customize their degree by selecting one or more tracks:

1. **Digital Business Technology:** gain the expertise for careers that bridge the business environment with technology
2. **Data Analytics:** gain the expertise for careers focused on utilizing data for decision-making in organizations and designing business intelligence tools

Why study Information Systems and Technology at the Palumbo-Donahue School of Business?

Studying IST at the Palumbo-Donahue School of Business involves a blend of courses and experiences intended to address information systems and technology in twenty-first century organizations.

In addition to courses in IST, students have access to the state-of-the-art Centers in Rockwell Hall, which offer the latest computer-based applications used in modern business. Students can also participate in the Association for Information Systems (AIS). Through this organization, students can meet with IST professionals, participate in

career networking events, compete in international competitions, and identify internship and job opportunities. Students will also have the chance to participate in the IST Mentorship program for a one-on-one mentoring opportunity with a well-seasoned IST professional.

Career Prospects

As a graduate in IST, you have a wide variety of career choices, such as:

- Systems Analyst/Business Analyst
- IT Consultant
- Business Intelligence Consultant
- Data Analyst

A recent edition of Jobs Rated Almanac listed an IST career (systems analyst) as one of the five best jobs in America, based on factors such as salaries, job demand and autonomy. Overall, the job and salary outlook for IST is exceptional.

Demand:

- Seven out of ten of the fastest growing occupations requiring a bachelor's degree are in the information systems field.
- The need for IST professionals is increasing as organizations continue to adopt and integrate increasingly sophisticated technologies.
- Data and information are considered an organization's most valuable asset, and the IST degree prepares students to work in this area.

Salary:

- IST graduates consistently rate near the top in starting salaries of college graduates.

Recent Duquesne IST graduates have found positions in a variety of major corporations, including ALCOA, Ariba, BNY Mellon, Deloitte, EY, Federated, FedEx, Giant Eagle, Grant Thornton, KPMG, Management Science Associates, PNC, PPG, UPMC and U.S. Steel.

Information Systems and Technology as a Value-Added Second Major

Knowing how to use technology to solve business problems in your field is a competitive advantage in the job market, a fact that makes IST a valuable second major or a minor for any business student. In particular, accounting, supply chain management, finance and marketing are fields that need information technology to support their activities.

(continued on reverse)

Courses

Course	Prerequisites	Semesters Offered
BUSINESS CORE COURSES (48 Credits)		
REQUIRED IST CORE COURSES (12 Credits)		
ISYS 380 User Experience Design	ISYS 184	Fall, Spring
ISYS 381W Systems Analysis and Design	ISYS 184	Fall, Spring
ISYS 382 Data and Information Management	ISYS 284	Fall, Spring
ISYS 489W IST Capstone	ISYS 380, ISYS 381W, ISYS 382	Fall, Spring
TRACKS (9 Credits from one track)		
Data Analytics Track (DA)		
ISYS 480 Introduction to Python for Data Analytics	ISYS 284	Fall
ISYS 484 Business Intelligence	ISYS 382	Fall
ISYS 490 Applied Data Analytics	ISYS 480	Spring
Digital Business Technology Track (DBT)		
ISYS 483 Enterprise Systems	ISYS 381W	Fall
ISYS 486 IT Security and Risk Management	ISYS 381W	Spring
SCMG385 SCM Info Systems and Technology*	SCMG 267	Fall, Spring
ACCT 310 Accounting Information Systems*	ACCT 215	Fall
*Students can only receive credit for either SCMG 385 or ACCT 310		
* BUAD 401 Internship can be substituted for one track course when student has earned 60 credits and completed two major courses. Only one internship course may be substituted for a track course.		
Data Analytics Track (DA) and Digital Business Technology Track (DBT)		
2 Courses from DBT list above and 3 Courses from DA list above or 3 Courses from DBT list above and 2 Courses from DA list above		
Students can complete the Information Systems and Technology major with no track by selecting 9 credits from the list of track courses.		
<i>Special Note: One course (three credits) can be dropped from the track requirements from this major.</i>		

Recommended Sequence

Junior Year (or earlier)	<i>Recommended <u>two of the below in fall semester and two in spring semester:</u></i> 380 User Experience Design, 381W Systems Analysis and Design, 382 Data and Information Management, and One Track Course
Senior Year	489W IST Capstone Electives needed to complete your IST Degree

Graduation Requirements

Students must earn a minimum overall GPA of a 2.0.

A Minor in Information Systems and Technology

Students can earn a minor in Information Systems and Technology by completing ISYS 184 and ISYS 284 (from the Business Core) plus ISYS 380, 381W, 382 and 1 ISYS Track Course (483, 484, 486, 480, 490, or 489W)

It is the responsibility of the student to know both University-wide graduation requirements and those of the major field of study and to meet all requirements satisfactorily for graduation.

This information is subject to change and this publication cannot be considered an agreement or contract between the individual and the School. The Palumbo-Donahue School of Business reserves the right to alter or amend the terms, conditions and requirements and to eliminate courses as necessary. Students should consult on a regular basis with their Student Success Coach for specific information related to their major and/or minor requirements. *Rev.8/2022*