

COMPUTER INFORMATION SYSTEMS & TECHNOLOGY

undergraduate program

Consistent with the overall mission of the University of Pittsburgh at Bradford, the Bachelor of Science degree in Computer Information Systems & Technology major includes a liberal arts core curriculum, much of which is taken during the first two years of study.

Employment Opportunities:

Information Systems Developer
 Network Administrator/Manager
 Analyst/Programmer
 Information Systems Manager
 On-Line Services Manager
 Applications Programmer I
 Operating Systems Programmer
 Auditor
 Internet Developer
 Operations Manager
 Communications Specialist
 Internet Marketing Analyst
 Operations Researcher
 Engineering Specialist
 Inventory Control Specialist
 Computer Security Analyst
 Inventory Manager
 Plant Manager
 Investment Analyst
 Product Development Manager
 Consultant
 Product Forecaster/Estimator
 Logistics Manager
 Production Line Manager
 Data Communications Analyst
 Management Analyst
 Production Scheduler/Planner
 Data Security Analyst
 Market Research Analyst
 Purchasing Agent/Manager
 Distribution Manager
 Materials Controller
 Quality Assurance Analyst
 Materials Manager
 Medical Systems Designer
 Records Management Analyst
 Relocation Analyst
 Mortgage Researcher
 Risk Analyst
 Software Tester
 Programmer
 Systems Technical Manager
 Technical Sales Rep
 Telecommunications Manager
 Web Master



Computer information systems & technology majors get a broad IT background. Students learn about programming applications, network development, systems design and analysis, web technologies, multimedia applications, database development, and systems administration. Students are

prepared to work in a team environment and to manage and lead companies and people in the translation of information technology.

Computer information systems & technology majors at Pitt-Bradford sit in small classes and receive individual attention from industry-experienced faculty. Students gain hands-on lab experiences by working on individual and team project as well as take part in an internship, research opportunities and a capstone course that will bring it all together.

The Computer Information Systems and Technology program has three minors/concentrations. The areas, applications software development, cybersecurity and digital forensics, and systems and network administration, are concentrations for students within the CIS&T major. With the addition of a few pre-requisite courses, each area can serve as a minor for students who are not majoring in CIS&T.

Required Skills:

- Problem Solving
- Listening
- Critical Thinking
- Different Learning Strategies
- Research & Reporting
- Independence and Team Work
- Communication (Written & Oral)

Possible Employers:

- School Systems (Post-Secondary)
- Non-Profit Organizations
- Industries
- Consulting Firms
- Healthcare Administration
- Museums
- Libraries
- Colleges or Universities

PROFESSIONAL ORGANIZATIONS:

Internet Society
 Independent Computer Consultants Association
 IEEE Computer Society
 Computing Research Association
 The Advanced Computing Systems Association

www.isoc.org
www.icca.org
www.computer.org
www.cra.org
www.usenix.org

FIND OUT MORE ABOUT CAREERS IN COMPUTER INFORMATION SYSTEMS & TECHNOLOGY AT:

Vocational Information Center
 (ISC) 2 Career Guide
 Occupational Outlook
 Career Services

www.khake.com/page17.html
www.isc2.org
www.stats.bls.gov/oco/ocos042.htm
www.upb.pitt.edu/career.aspx



Computer Information Systems & Technology (BS) – Curriculum Guide

Student Name: _____

Advisor: _____

GENERAL EDUCATION REQUIREMENTS

COMPETENCIES

(Minimum grade of C- required in all competencies)

- FS 0102 Freshman Seminar
(if transferring in fewer than 18 credits)

Writing

- ENG 0101 English Composition I
 ENG 0102 English Composition II

Mathematics

- * MATH 0098 College Algebra II or Higher *(see Major)*

THE HUMAN EXPERIENCE

- Students are required to complete two courses designated as "Global"*

ARTS & LETTERS *(ONE course MUST be literature;*

ONE course MUST be a creative, fine or performing Arts course)

- Literature
 Arts
 Literature, Arts, Language

BEHAVIORAL, ECONOMIC, & POLITICAL SCIENCES

(Two different categories must be represented)

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HISTORY, CULTURES, & PHILOSOPHICAL INQUIRY

(ONE course MUST be History, and ONE course must be Cultures or Philosophical Inquiry)

- HIST

PHYSICAL, LIFE, & COMPUTATIONAL SCIENCES

(ONE course must be a Physical Science, ONE must be a Life Science and ONE must include a lab)

- Physical Science
 Life Science
 (See Major)
 Lab

PHYSICAL EDUCATION

- PEDC

REQUIRED MAJOR COURSES (45 Credit Hours)

- CIST 0150 Programming Fundamentals (3)
 CIST 0161 Technology of Computing (3)
 CIST 0163 Intro to Web Technology (3)
 CIST 0165 Networking I (3)
 CIST 0166 Networking II (3)
 CIST 0261 Computer Security (3)
 CIST 0262 Systems Administration (3)
 CIST 0265 Data Structures & Object Oriented Programming (3)
 CIST 1307 Database Design and Management (3)
 CIST 1310 Systems Analysis and Design (3)
 CIST 1311 Electronic Commerce (3)
 CIST 1325 Intro to Supply Chain Management (3)
 CIST 1408 Project Management in Information Tech. (3)
 CIST 1499 CIST Internship (3)
 CIST 1451 Capstone (3)

CHOOSE 4 APPROVED ELECTIVES (12 Credit Hours)

or CHOOSE ONE OF THE 3 CONCENTRATIONS

(Application Software Development, Cybersecurity and Digital Forensics, Systems and Network Administration)

(see advisor for other approved electives or concentrations)

- CIST 1301 Advanced Web Technologies (3)
 CIST 1320 User Interface Design (3)
 CIST 1326 Digital Forensics (3)
 CIST 1327 Intrusion Detection and Response (3)
 CIST 1328 Network Security and Cryptography (3)
 CIST 1341 Linux Operating System (3)
 CIST 1342 Host Scripting (3)
 CIST 1344 Virtualization and Cloud Technologies (3)
 CIST 1401 Information Assurance (3)
 CIST 1415 Data Analytics (3)
 CIST 1421 Mobile Application Programming (3)
 CIST 1422 Game Design and Programming (3)
 CIST 1431 Multimedia Intro to Application (3)
 CIST 1432 Ethical Hacking (3)
 CIST 1443 Network and System Practicum (3)

OTHER REQUIRED COURSES (4 Credit Hours)

- MATH 0133 Statistics GE (4) **OR**
ECON 0204 Statistical Methods GE (4)

You will have EARNED _____ credit hours

You NEED _____ for 120 credit hours required for graduation.

You will have earned _____ credit hours of Upper Level course work.

You NEED _____ for the 30 credit hours required for graduation.

NOTE: This guide is unofficial. Completing the requirements on this sheet does NOT guarantee degree completion. Official degree completion information can be found in **MY.PITT.EDU**. Contact your Faculty Advisor and/or the Registrar's Office with questions or concerns.