

# COMPUTER INFORMATION SYSTEMS

Successful business strategies in 21st-century organizations depend on integrating information technology in planning, production, marketing, and management. Bentley's Computer Information Systems (CIS) graduates are among the most highly sought-after business professionals in today's job market.

Our CIS degree focuses on essential information technologies, providing specific expertise to analyze, design and develop information systems ranging over all business functions, and across every industry. You also will learn how to recognize the ethical implications in all business decisions and how to incorporate these considerations into business decision-making.

The CIS Sandbox is Bentley's technology social learning space, located in Smith 234. Students visit the CIS Sandbox to meet with peer tutors, collaborate on group projects, and try out technology devices including Android tablets, Raspberry Pi computers, and an Oculus Rift virtual reality headset. The CIS Sandbox also offers informal educational events such as career talks by CIS alumni and site visits to area high tech companies. For more information, visit [cissandbox.com](http://cissandbox.com).

## EXPERIENTIAL LEARNING

You can choose to further your classroom knowledge through our hands-on learning programs: corporate partnerships, internships, service-learning and study abroad.

By participating in these opportunities, you will gain valuable real-world experience, learn about diverse people and perspectives, and gain new skills for living and working in a global community.

## CAREERS

The CIS degree prepares you to succeed in any of the emerging and varied roles of the IT professional, including business analyst, systems analyst, application developer, systems integrator, IT liaison, end-user support, network manager, vendor representative, and technical support specialist. Specific positions for CIS graduates can include:

- Business Analyst
- Database analyst/developer
- Data security analyst/risk analyst
- E-commerce analyst
- Networking analyst/architect
- Quality assurance analyst/tester
- Software engineer
- Web designer
- Web developer

## REQUIRED AND ELECTIVE COURSES

### MAJOR REQUIREMENTS

Data and Information Management
Programming Fundamentals with Java
Business Processing and Communication Infrastructure
Database Management Systems
Business Systems Analysis and Modeling

### IN ADDITION, YOU MUST CHOOSE THREE OF THE FOLLOWING ELECTIVES:

Object-Oriented Application Development
Multi-Tiered/Web Application Development
Advanced Net-Centric Computing
IS Project Management and Practice
Mobile Application Development
Programming with Python
Directed Study in Computer Systems

### MINOR REQUIREMENTS

Introduction to Data and Information Management
The World Wide Web

### IN ADDITION, YOU MUST CHOOSE TWO OF THE FOLLOWING ELECTIVES:

Object-Oriented Application Development
Business Systems Analysis and Modeling
Advanced Net-Centric Computing
Business Processing and Communications Infrastructure
Database Management Systems
Applied Software Project Management
Programming Fundamentals with Java
Programming with Python

Additional requirements apply for degree completion

## FOR MORE INFORMATION

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**BENTLEY**  
**UNIVERSITY**

Most Bentley students pursuing a Bachelor of Science degree take the following courses:

### GENERAL EDUCATION REQUIREMENTS

Information Technology  
Expository Writing I  
Expository Writing II  
Mathematical Sciences I  
Mathematical Sciences II  
Government  
Problems of Philosophy  
Principles of Microeconomics  
Principles of Macroeconomics  
First-Year Seminar (one credit)

For each of the following requirements, you can choose an applicable course from a wide variety of offerings:

Literature/Cinema  
Natural Sciences  
Math or Natural Sciences elective  
History  
Behavioral Sciences  
Humanities/Social Science elective

### BUSINESS CORE REQUIREMENTS

Legal and Ethical Environment of Business  
Tools and Concepts  
in Accounting and Finance  
Practice and Applications  
in Accounting and Finance  
Business Statistics  
Marketing-Operations Fundamentals  
Human Behavior and Organizations  
Business Processes and Systems  
Integrated Business Project  
Global Strategy

### BUSINESS-RELATED ELECTIVES

Choose one course

### ARTS AND SCIENCES ELECTIVES

Choose five courses

### UNRESTRICTED ELECTIVES

Choose two courses

# TAKE IT TO THE NEXT LEVEL.

After you've selected a major, what else can you do to make your education work harder? Customize your degree with an optional second major, choose a minor or get a head start on graduate study.

**LIBERAL STUDIES MAJOR** You can choose to pair your business degree with the Liberal Studies major (LSM), an optional second major with eight different concentrations. The LSM is designed to help you learn how to connect your business studies with key topics in the arts and sciences, providing you with skills in critical thinking, problem solving, creative analysis and communication — all of which will help you stand out to future employers. The LSM does not require any extra courses beyond the normal curriculum requirements.

The LSM concentrations are:

- American Studies
- Diversity and Society
- Earth, Environment and Global Sustainability
- Ethics and Social Responsibility
- Global Perspectives
- Health and Industry
- Media Arts and Society
- Quantitative Perspectives

**MINORS** You can further specialize your studies through one of our minors.

- Accountancy
- Actuarial Science
- Business Economics
- Business Risk Assurance
- Business Studies
- Computer Information Systems
- Data Technologies
- Earth, Environment and Global Sustainability
- English and Media Studies
- Entrepreneurial Studies
- Ethics and Compliance
- Finance
- Gender Studies
- Global Management
- Health and Industry
- History
- Human Resources Management
- Information and Process Management
- Information Design and Corporate Communication
- International Affairs
- International Economics
- Law
- Leadership
- Management
- Marketing
- Mathematical Sciences
- Modern Languages
- Nonprofit Organizations
- Philosophy
- Politics
- Psychology
- Public Policy
- Sociology
- Spanish for Business
- Sports Business Management
- Supply Chain and Operations Management
- Sustainable Investing

**FALCON FAST-TRACK PROGRAM** The Falcon Fast-Track program is designed for motivated undergraduate students with high academic standing in ANY undergraduate major. Depending on the program of study, master's degree requirements may be completed with one year of additional full-time academic work. Students enrolled in the Falcon Fast-Track Program have the opportunity to pursue a variety of master's programs.

For more information, visit [bentley.edu/fast-track](http://bentley.edu/fast-track).