

## Computer Information Systems

### Composite Major

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### Major

The Computer Information Systems major prepares students with a foundation in problem solving skills required to design and implement technology solutions to support business needs. The courses use project-based curricula that first teach the concepts of the subject matter and then require the students to apply the concepts. Students often work in teams to encourage the learning of group dynamics and soft-skills. The CSSE Department has joined in Academic Alliances with technology companies such as SAP, Microsoft, and Oracle, using these technologies to complete hands-on projects.

Students graduating with a Computer Information Systems Degree have a 100 percent in-field job placement rate for the last five years. Career opportunities are Business Analyst, Systems Analyst, Database Administrator, MIS Technician, MIS Manager, Network Administrator, Computer Security Specialist, Computer Programmer, Software Engineer, Software Implementation Consultant, IT Team Leader and IT Project Manager. Visit our page at [csse.vcsu.edu](http://csse.vcsu.edu) or watch the video at [www.code.org](http://www.code.org) (<http://www.code.org>). You don't have to be a genius, you just have to be determined. You could be the next Mark Zuckerberg (creator of Facebook) or Jack Dorsey (creator of Twitter). Let your dream become a reality at Valley City State University!

### Practical Experience

Students are encouraged to work for internship credits while completing their degree in Computer Information Systems. Companies such as Doosan, Blue Cross Blue Shield of North Dakota, Bobcat, Eide Bailly, Thomson Reuters, Cavendish, John Deere, Microsoft, Appareo Systems, NBC Universal, and Best Buy have welcomed VCSU students in their internship programs.

VCSU students develop excellent technology and soft skills and many are hired into full-time positions with these companies after graduation. In addition to internships, cooperative research projects with faculty give students first-hand experience with advanced research techniques. The undergraduate research ranges from Virtual Reality to the Internet of Things.

Students also have the opportunity to participate in activities such as company tours, workshops, fairs, and technology conferences.

*"I am very excited to be a professional web developer. With it comes the responsibility to constantly learn and improve my skills, and I strive to write better code every day." —Cy Kirsch '12, New Leipzig, N.D.; web developer, Provident Precious Metals, Carrollton, Texas*

### General Education Requirements

Code	Title	Credits
<b>English Composition</b>		
Select one of the following:		6
ENGL 110	College Composition I <sup>1</sup>	

ENGL 120 or ENGL 125	College Composition II <sup>2</sup> Introduction to Professional Writing	
ENGL 120 or ENGL 125	College Composition II Introduction to Professional Writing	
ENGL 210	College Composition III	
<b>Speech Communication</b>		
Select one of the following:		3
COMM 110	Fundamentals of Public Speaking	
COMM 212	Interpersonal Communication	
COMM 216	Intercultural Communication	
<b>Mathematics</b>		
Select one of the following:		3
MATH 103	College Algebra	
MATH 104	Finite Mathematics	
MATH 107	Precalculus	
MATH 165	Calculus I	
MATH 210	Elementary Statistics	
<b>Lab Science</b>		
Select two of the following:		8
BIOL 111	Concepts of Biology	
BIOL 150	General Biology I	
BIOL 151	General Biology II	
BIOL 170	General Zoology	
CHEM 115	Introductory Chemistry	
CHEM 116	Introduction to Organic and Biochemistry	
CHEM 121	General Chemistry I	
CHEM 122	General Chemistry II	
GEOL 100	Introduction to Earth Science	
GEOL 106	The Earth Through Time	
PHYS 100	Concepts of Physics	
PHYS 110	Introductory Astronomy	
PHYS 161	Introductory College Physics I	
PHYS 162	Introductory College Physics II	
PHYS 251	University Physics I	
PHYS 252	University Physics II	
TECH 161	Technology, Engineering, and Design	
<b>Wellness</b>		
HPER 100	Concepts of Fitness and Wellness	2
<b>Technology</b>		
Select one of the following:		3
CIS 170	Introduction to Computer Information Systems <sup>2</sup>	
CSCI 127	Introduction to Programming in Java	
CSCI 160	Introduction to Structured Programming I	
SE 110	Discovering Computing	
<b>Humanities</b>		
<b>Literacies</b>		
Select one of the following:		3
ENGL 220	Introduction to Literature	
ENGL 225	Introduction to Film	
ENGL 241	World Literature I	
ENGL 242	World Literature II	
ENGL 261	American Literature I	
ENGL 262	American Literature II	
HUM 201	Civilization, Thought, and Literary Heritage	
SPAN 101	1st Year Spanish I	
SPAN 102	1st Year Spanish II	
SPAN 201	2nd Year Spanish I	

SPAN 202	2nd Year Spanish II
THEA 110	Introduction to Theatre Arts
THEA 161	Acting One

**Art and Music**

Select one of the following: 3

ART 110	Introduction to the Visual Arts
HUM 202	Fine Arts and Aesthetics
MUS 100	Music Appreciation
MUS 101	Music Fundamentals
MUS 207	History of Rock and Roll

**Social Science**

Select two of the following: 6

COMM 112	Understanding Media and Social Change
COMM 114	Human Communication
ECON 201	Principles of Microeconomics <sup>1</sup>
ECON 202	Principles of Macroeconomics <sup>2</sup>
GEOG 151	Human Geography
HIST 103	United States to 1877
HIST 104	United States to Present
HIST 211	World Civilizations to 1500
HIST 212	World Civilizations since 1500
HIST 260	Women in America
HIST 267	Environmental History
HIST 270	Native American Studies
POLS 115	American National Government
POLS 116	State and Local Government
PSYC 111	Introduction to Psychology
SOC 110	Introduction to Sociology
SOC 111	Introduction to Anthropology

**Additional Humanities or Social Science**

Select one additional course from Humanities or Social Science or select from the following: 2

ART 112	Design
ART 130	Drawing I
ART 150	Ceramics I
GEOG 111	Survey of Geography
MUS 104	Group Piano for Non-Majors
MUS 105	Group Piano for Non-Majors
MUS 130	Valkyries
MUS 131	Concert Choir
MUS 140	Athletic Band
MUS 141	Concert Band
PHYS 275	Planetarium Science
THEA 201	Theatre Practicum

Total Credits 39

<sup>1</sup> Required<sup>2</sup> Required ENGL 125**Major Requirement**

Code	Title	Credits
<b>Required Courses</b>		
ACCT 200	Elements of Accounting I	3
ACCT 201	Elements of Accounting II	3
CIS 104	Microcomputer Database	2
CIS 105	Microcomputer Spreadsheets	2
CIS 147	Principles of Information Security	3
CIS 329	Information Systems Management	3
CIS 369	Enterprise Systems	3

CIS 380	Systems Analysis and Design	3
CIS 381	Project Management	3
CIS 385	Database Theory/Design	3
CIS 460	Enterprise Architecture	3
CIS 465	IS Strategy Management and Acquisition	3
CIS 470	Customer Relationship Management (CRM) and Business Intelligence (BI)	4
CIS 480	Capstone Project	3
CSCI 127	Introduction to Programming in Java	3
ECON 261	Business Statistics	3

Select one of the following: 3

ENGL 310	Writing in the Major	
ENGL 410	Technical and Scientific Writing	
ENGL 420	Online Communication and Documentation	
SE 110	Discovering Computing	3
MGMT 430	Organizational Behavior	3

**Directed Electives**

Select eighteen hours from the following: 18

CIS 128	Microcomputer Hardware I
CIS 162	Operating Systems
CIS 164	Networking Fundamentals I
CIS 180	Creating Web Pages I
CIS 276	Business Language
CIS 371	Enterprise Systems II
CIS 410	Advanced Business Languages
CIS 420	Internet Languages
CIS 440	Advanced Digital Web Design
CIS 475	Integration of Business Processes in SAP ERP

Total Credits 74

**Total General Education 39 Hrs****Total Major Requirement 74 Hrs****Total Credits Needed to Graduate 120 Hrs**

For degree and graduation requirements, visit degree requirements and graduation requirements (<http://catalog.vcsu.edu/undergraduate-catalog/academic-affairs/degree-requirements>).