*Business Division*

**COMPUTER INFORMATION SYSTEMS TECHNOLOGY**

The Computer Information Systems program is built on a foundation of strong technical knowledge in information systems. The program emphasizes the areas of computer programming, database systems, computer networking, network security, project management and systems analysis. It also reinforces a broad understanding of other disciplines related to information systems, such as accounting, math, management, and communication. The CIS program allows students to tailor their degree to their interests by offering a wide range of electives. Certificates are also provided as a guide to assist students in the selection of electives. Many classes are fully mapped to industry certifications. The CIS Department is located in Technology Hall, a 100,000 sq. ft. facility on the eastern side of the NVCC campus. Classes are held in Smart classrooms featuring instructors’ workstations that control an advanced classroom audio visual presentation system. Every CIS classroom also includes student workstations with state-of-the-art computers. The CIS Department also has three specialized Smart classrooms that are dedicated to the Networking courses and are connected to an adjacent Server Room.

*General Education Core course listings and definitions appear on pages 53-54. Placement testing will determine the sequencing of courses. Additional courses may be required.*

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| **Competency or Program Requirement** | **Course Number and Title** | Required Credits |
| Aesthetic Dimensions/Written  Communication | Choose any Aesthetic Dimensions/  Written Communication listed | 3 |
| Continuing Learning and Information  Literacy/Ethics | CSC\*H101 Introduction to Computers | 3 |
| Critical Analysis and Logical Thinking/  Written Communication | ENG\*H101 Composition | 3 |
| Historical Knowledge | Choose any Historical  Knowledge listed | 3 |
| Oral Communication | Choose any Oral Communication listed | 3 |
| Quantitative Reasoning | MAT\*H167 Principles of Statistics or MAT\*H172 College Algebra or higher | 3 |
| Scientific Knowledge◊ | Choose any Scientific Knowledge listed | 4 |
| Scientific Reasoning | CSC\*H250 Systems Analysis and Design or CSC\*H252 Project Management | 3 |
| Social Phenomena | Choose any Social Phenomena listed | 3 |
| Written Communication | Choose any Written Communication listed—Prefer ENG\*H102 Literature and Composition or ENG\*H200  Advanced Composition | 3 |
| Program Requirements | CST\*H130 Networking Essentials I | 3 |
| CSC\*H205 Visual Basic or CSC\*H113 Programming I | 3 |
| CST\*H120 Introduction to Operating Systems | 3 |
| CSC\*H231 Database Design I | 3 |
| ACC\*H113 Principles of Financial Accounting | 3 |
| CSC Programming Elective 1 | 3 |
| CSC Programming Electives 2 | 12 |

**Total Credits: 61**

*Any given course may only be used to satisfy one of the competency areas even if it is listed under more than one.*

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| ***Program Outcomes*** |

*Upon successful completion of all program requirements, graduates will be able to:*

1. Demonstrate desirable attitudes and work habits– creative thinking, the ability to solve problems, cooperation, good judgment, responsibility, and self-reliance.
2. Understand and respect the employer-employee relationship and appreciate the need to produce high quality work.
3. Communicate clearly, both verbally and in writing.
4. Demonstrate sufficient understanding of information technology for entry-level employment and advancement in the field.
5. Demonstrate a commitment to professional organizations through attending meetings, seminars, and continuing education programs.
6. Apply knowledge of interpersonal and motivational skills and communication techniques learned in English, speech, psychology, and social sciences when working with customers, peers, and subordinates.
7. Develop sound ethical, philosophical, and moral professional characteristics.
8. Demonstrate a responsible attitude in relationships with employers, fellow employees, and toward the working environment.
9. Acquire a level of math skills appropriate for student's area of concentration.
10. Be able to list and describe emerging technologies.

1Choose one of the following:  
CSC\*H206 VISUAL BASIC II  
CSC\*H211 VB & ASP .NET Web Programming  
CSC\*H213 Object-Oriented Programming Using C++  
CSC\*H214 Advanced C++ Programming  
CSC\*H217 Object-Oriented Programming Using C#  
CSC\*H220 Object-Oriented Programming Using JAVA  
CSC\*H227 Web Programming with JAVA  
CSC\*H228 Mobile Device Programming  
CSC\*H229 Programming II   
CSC\*H232 Database Design II   
CSC\*H237 Database Programming with VB.NET 3   
CSC\*H205 Visual Basic I or  
CSC\*H113 Programming I *(if both are taken, one can be used to meet the programming elective requirement.)*

◊ Scientific Knowledge MUST have a lab component

2Choose four of the following:  
CSC\*H205 Visual Basic I or CSC\*H113 Programming I   
*(if both are taken, one can be used to meet the 4 elective requirement)*CSC\*H206 VISUAL BASIC II   
CSC\*H211 VB & ASP .NET Web Programming   
CSC\*H213 Object-Oriented Programming Using C++   
CSC\*H214 Advanced C++ Programming  
CSC\*H217 Object-Oriented Programming Using C#   
CSC\*H220 Object-Oriented Programming Using JAVA  
CSC\*H227 Web Programming with Java   
CSC\*H228 Mobile Device Programming  
CSC\*H229 Programming II   
CSC\*H232 Database Design II   
CSC\*H237 Database Programming with VB.NET 3   
CSC\*H183 Information Systems in Organizations   
CSC\*H236 Introduction to Client/Server Systems  
CSC\*H252 Information Systems Project Management   
CSC\*H295 Co-op Education Work Experience CST\*H235 Network Systems  
CST\*H236 Advanced Network Systems  
CST\*H239 Servicing & Support of Local Area Networks  
CST\*H248 Practices in Security Management   
CST\*H274 Network Security Technology  
ACC\*H117 Principles of Managerial Accounting

††Choose **not more than two** of the following:  
CSA\*H135 Spreadsheet Applications  
CSA\*H205 Advanced Applications  
BMK\*H216 Internet Marketing  
CJS\*H224 Computer Crimes  
CJS\*H234 Computer Security and   
 Data Protection  
DAT\*H101 Introduction to Digital Arts  
DAT\*H108 Digital Imaging I  
DAT\*H205 Multimedia Authoring II  
DAT\*H215 Multimedia Web Authoring