The field of computer information systems is rich in career opportunities with excellent starting salaries for qualified personnel. Corporations, government agencies, financial institutions, marketing and retail organizations, and small firms require the services of computer applications specialists, computer programmers, and information technology technicians. The Computer Information Systems Curriculum, based upon your interests, prepares you for various entry-level positions including junior computer programmer, computer operator, computer support specialist, application user specialist, data-entry operator, web page designer and desktop publishing specialist.

Students must select either the Computer Programming Option or the Web Page Development Option once they have earned 12 degree credits.

Graduates may transfer to related programs offered by four-year colleges. A Cooperative Work Experience course allows students to gain valuable business experience in a supervised setting.

Students interested in the Business Administration Computer Programming Option (A.S. Degree) in the Business and Information Systems Department should see the Business Administration curriculum information in the college catalog. Students interested in Computer Science (A.S. Degree) in the Mathematics and Computer Science Department should see the Computer Science curriculum information elsewhere in this college catalog.

Curriculum Coordinator: Professor Imran Ghafoor

Computer Information Systems Curriculum (Pathways)
60 Credits required for A.A.S. Degree

Required Core
A. English Composition
   • ENG 10 Fundamentals of Composition and Rhetoric OR ENG 11 Composition and Rhetoric I (3 Credits)
   • ENG 12 Composition and Rhetoric II OR ENG 14 Written Composition and Prose Fiction OR ENG 15 Written Composition and Drama OR ENG 16 Written Composition and Poetry (3 Credits)
B. Mathematical and Quantitative Reasoning
   • MTH 21 Survey of Mathematics I OR MTH 23 Probability and Statistics (3 Credits)
C. Life and Physical Science
   SCIENCE 2 AST 111, BIO 11, CHM 17, CHM 111, ENV 11, ESE 11, ESE 12, ESE 13, PHY 11 OR PHY 110 (3-4 Credits)

Flexible Core
A. World Cultures and Global Issues
   • HIS 10 History of the Modern World OR HIS 11 Introduction to the Modern World (3 Credits)
B. US Experience in its Diversity OR D. Individual and Society
   • ECO 12 Macroeconomics OR ECO 11 Microeconomics (3 Credits)
   Choose one course from Flexible Core A-E 3
   SUBTOTAL 21-22

Specialization Requirements
• ACC 111 Principles of Accounting I (4 Credits)
• BIS 13 Introduction to Internet and Web Development (3 Credits)
• BUS 10 Introduction to Business (3 Credits)
• BUS 111 4 Applications of Mathematics for Business (3 Credits)
• COMM 12 Voice and Diction: Business and Professional Speech (2 Credits)
• DAT 30 Introduction to Computer Fundamental and Programming (3 Credits)
• DAT 33 Microcomputer Applications (2 Credits)
• DAT 35 BASIC Language Programming (3 Credits)
• KEY 10 Keyboarding for Computers (1 Credit)
• CWE 31 5 Cooperative Work Experience (2 Credits)
• LAB SCIENCE Credit 2 (0-1 Credit)
   SUBTOTAL 26-27
Degree Options
Student must choose an option to graduate:

- Computer Programming
- Web Page Development

SUBTOTAL 12

Computer Programming Option:

- DAT 38 Database Management Applications (3 Credits)
- DAT 47 JAVA Programming (3 Credits)
- DAT 48 Advanced JAVA Programming (3 Credits)
- DAT 49 UNIX Fundamentals (3 Credits)

SUBTOTAL 12

Web Page Development Option:

- BIS 12 Multimedia Theory and Applications for Business (3 Credits)
- BIS 23 Advanced Web Page Design and Development (3 Credits)
- BIS 31 E-Commerce (3 Credits)
- DAT 38 Database Management Applications (3 Credits)

SUBTOTAL 12

1 Students planning to transfer to a four-year college should take MTH 30 or 31.
2 Students may select either a 4-credit or a 3-credit science course. Students selecting a 3-credit course must also complete an additional 1-credit lab course to fulfill graduation requirements.
3 In an effort to provide students with a well-rounded liberal learning experience, students are encouraged to fulfill this requirement by selecting courses from Flexible Core Areas B, C or E as these areas are not already required by this program.
4 Students who have completed MTH 06 (or three years high school mathematics) and intend to transfer to a four-year college may take BUS 41 instead of BUS 111.
5 CWE 31 is a two (2) credit course. A student should enroll in CWE one year before graduating or when starting the third semester. See the CWE advisor in Loew Hall, Career Services, during the second semester. Students who are employed full-time are not required to complete CWE. A waiver must be obtained from the Department Chairperson by submitting documentation of current full-time employment. After a written waiver of CWE is obtained, the student must substitute the required CWE credits with any course(s) offered by the Business and Information Systems Department. College Work-Study assignments within CUNY may not be used as substitutes for the CWE internship.

All options articulate with SUNY Empire State College, Business, Management and Economics and Interdisciplinary Studies baccalaureate programs.