Brooklyn College
Department of Computer and Information Sciences

CISC 1080 [5.1] Microcomputers in Education
2 hours lecture, 2 hours laboratory; 3 credits

Introduction to the use of the microcomputer as an educational tool. Computer literacy. Rudimentary programming. Computers in relation to school curriculum. Comparison of computing languages in the schools. Implementation of computer peripherals and software. This course is the same as Education 68.1. (Not open to students who have completed Computer and Information Science 68.)

Aims

- Setting up the computer for specific learning and administrative goals
- Aligning the technology standards with all disciplines
- Analyzing the technology standard strand of the New York City Department of Education, and how it relates to teaching methodology
- Specific educational applications of word processing, spreadsheet, and database software.

Syllabus

1. Part I – Introduction and background
    a. Computer Basics – How and why we use the computer in the classroom and outside of the classroom.
    b. Integrating technology into the classroom – computer literacy
2. Part II – Integrating software tools
    a. Computer paradigms – which software is right for the classroom.
    b. Instructional software
    c. Administrative tools for class management
        i. Create personalized and ongoing assessments
        ii. Using excel to create grade books
        iii. Tracking student information easily
        iv. Providing visual feedback to learners
        v. Math exercise sheets
    d. Designing rubrics
    e. Teaching with the basic three software models: word processing, spreadsheets, and databases
    f. Teaching with multimedia and hypermedia
3. Part III – Using the Internet
    a. Finding resources on the internet
    b. Using blogs and social bookmarking as resources and tools
    c. Safety issues on the internet
    d. How to create and host interactive web pages for classroom use
4. Part IV – Principles of linking technology to learning
5. Part V – Integrating technology across the curriculum

6. Introduction to programming
    a. The basics of computer programming and how it can relate to mathematics

Textbooks:

Integrating Educational Technology into Teaching
ISBN: 978-0-13-119572-1

Excel for teachers
ISBN: 1-932802-11-8