

EDIT 565 – Teaching with Educational Software

(1 credit hour)

* Coding in **bold** reflects ISTE NETS Standards for all teachers.

1. Course Description

This one credit hour course is designed to assist students in exploring and developing expertise with a variety of educational software, including simulations, problem-solving software, computational tools (calculators, LOGO, and spreadsheets), and drill-and-practice/integrated learning systems. Emphasis will be placed on the ways these programs support the K-12 teaching/learning process.

2. Methodology

The course is structured around class projects, discussions and activities, and participation in a series of model lessons designed to reflect strategies for the integration of telecommunications with the teaching/learning process. Using this collection of activities, the methodology of the course seeks to build clear bridges between technology know how and classroom practice.

3. Objectives

The following objectives have been established for the course:

1. Students will develop comprehensive understanding of the mechanics associated with a variety of educational programs; **I-A, I-B**
2. Students will become familiar with curricular and instructional models related to a variety of educational programs; **II-A, II-B, II-C, II-D, II-E, III-A, III-B, III-C, III-D, VI-A, VI-B, VI-C, VI-D, VI-E**
3. Students will design at least one lesson for their grade and/or subject matter interests using a selected educational software program. **II-A, II-C, IV-A, IV-B, IV-C, VI-A, VI-B, VI-C, VI-D, VI-E**

4. Texts and Materials

1. Chapter 2 – Skills Software: Drilling and Practicing in Norton & Sprague, (2001). *Technology for Teaching*, NY: Allyn and Bacon.
2. Chapter 7 – Simulations: Experimenting and Structuring in Norton & Sprague, (2001). *Technology for Teaching*, NY: Allyn and Bacon.
3. Chapter 9 – Mathematical Devices: Computing and Modeling in Norton & Sprague, (2001). *Technology for Teaching*, NY: Allyn and Bacon.
4. Students are expected to obtain and bring to class appropriate materials and supplies to include 3 ½ “ disks and note taking materials.

5. Course Requirements

1. Attendance in class is mandatory, as discussions, lectures, and hands-on activities are important parts of the course.
2. Each student is expected to complete all readings and participate in all discussions.
3. Each student is expected to participate in and complete all classroom projects.
5. All written assignments must be completed on a word processor.

6. Course Assignments

1. Portfolio (10 points): Throughout their program of study, students will be required to create and continually revise a professional portfolio. This portfolio should not be a

collection of what the student has done, but rather a reflection of what they have learned. A section will be added to the portfolio reflecting student learning related to a variety of educational software programs as they relate to the teaching/learning process.

Performance-based outcome for objectives 2 & 3.

2. Software Reviews (10 points each): Students will use Internet and library resources to locate three software reviews that describe and evaluate software related to their teaching area. Students will complete at least three Software Request Forms. Finished Software Request Forms will include a detailed description of how the software choice supports lessons for students and links to standards. These forms will be made available in class.

Performance-based outcome for objectives 1, 2, & 3.

3. Class Participation (10 points): The class depends heavily on class participation and completion of in class activities. Points will be awarded for participation and completion of these activities.

7. Schedule of Class Topics

Class	Topics and Due Dates
Day One	Introduction to Class and Syllabus The One Computer Classroom: Simulation Examples: <i>Violence and the Media</i> Simulation: <i>Hot Dog Stand</i>
Day Two	Simulations and Problem-Solving Software Four Examples: Putt Putt Travels through Time <i>The Factory and SuperFactory</i> <i>Castle</i> <i>Lemmings</i> Introduction to Programming: Logo Downloading Worksheet 1
Day Three	Computational Tools Databases and Spreadsheets Activity: An Analysis of Teacher Opinions Logo: Finish Worksheet One and Start Worksheet Two
Day Four	Computational Tools Spreadsheets My Two Crabby Aunts Visit Virginia Logo: Work on Logo Worksheet Two
Day Five	Share Logo Programs with Class – Finished Worksheet Two Exploring Educational Software Resources Software Reviews Selecting Three Educational Software Programs Completing a Wish List

8. Evaluation

Since this is a graduate level course, high quality work is expected on all assignments and in class. Points for all graded assignments (see section 6) will be based on the scope, quality, and

creativity of the assignments. All assignments are due at the beginning of class. Late assignments will not be accepted without making arrangements with the instructor.

Points will be assigned to all graded assignments using a rubric process. Both class participants and the course instructor will be involved in assessment of graded assignments. Prior to the due date for any assignment, the class will participate in the development of an assessment rubric. This rubric will result from a discussion of applicable course objectives and an elaboration of qualities and components associated with excellence in completion of the assignment.

When assignments are presented on the designated due date, class participants and the instructor will complete an assessment of the assignment using the rubric created in class. Class participants' ratings on the rubric will be averaged. Then the class participants' average will be averaged with the instructor's ratings on the rubric to compute a final point value for assignments. In this way, the development of the rubric will inform the final completion of the assignments as well as serve as the instrument for assessment and determination of points awarded.