EDIT 504: Introduction to Educational Technology
3 Credit Hours

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Note: This syllabus is subject to change and should only be used as an example.

Learning Outcomes | Educational Standards | Readings | Requirements | Assignments | Evaluation | Course Schedule | Software Evaluation Resources | Online Resources

Methodology: This course examines the uses of and issues surrounding educational technology, focusing on computer related technologies and their application to educational tasks. Discussions (on-line and face-to-face), readings, field experience, software evaluation, and class projects will be utilized in order to help students develop a working knowledge of instructional technologies.

Learning Outcomes: At the conclusion of this course, students will be able to:

1. Demonstrate facility in the use of basic applications software, including word processing, databases, spreadsheets, desktop publishing, and hypermedia.
2. Demonstrate use of the Internet, specifically use of e-mail and the World Wide Web (WWW).
3. Evaluate appropriate instructional uses of software.
4. Describe how characteristics of particular technologies can be exploited for maximum educational benefit, based on the development of the learner.
5. Design Instructional Units that demonstrates age-appropriate applications of various educational technologies.
6. Locate information and resources on educational technology.

Educational Standards: This course addresses the following National and State Standards:

The Virginia State Technology Standards for Instructional Personnel:

1. Instructional personnel shall be able to demonstrate effective use of a computer system and utilize computer software.
2. Instructional personnel shall be able to apply knowledge of terms associated with educational computing and technology.
3. Instructional personnel shall be able to apply computer productivity tools for professional use.
4. Instructional personnel shall be able to use electronic technologies to access and exchange information.
5. Instructional personnel shall be able to identify, locate, evaluate, and use appropriate instructional hardware and software to support Virginia's Standards of Learning and other instructional objectives.
6. Instructional personnel shall be able to use educational technologies for data collection, information management, problem solving, decision making, communication, and presentation within the curriculum.
7. Instructional personnel shall be able to plan and implement lessons and strategies that integrate technology to meet the diverse needs of learners in a variety of educational settings.
8. Instructional personnel shall demonstrate knowledge of ethical and legal issues relating to the use of technology.

International Society for Technology in Education (ISTE) National Educational Technology Standards:

I. TECHNOLOGY OPERATIONS AND CONCEPTS - Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:

1. demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Educational Technology Standards for Students).
2. demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

II. PLANNING AND DESIGNING LEARNING ENVIRONMENTS AND EXPERIENCES - Teachers plan and design effective learning environments and experiences supported by technology. Teachers:

3. design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
4. apply current research on teaching and learning with technology when planning learning environments and experiences.
5. identify and locate technology resources and evaluate them for accuracy and suitability.
6. plan for the management of technology resources within the context of learning activities.
7. plan strategies to manage student learning in a technology-enhanced environment.

V. PRODUCTIVITY AND PROFESSIONAL PRACTICE - Teachers use technology to enhance their productivity and professional practice. Teachers:

8. use technology resources to engage in ongoing professional development and lifelong learning.
9. continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
10. use computer-based technologies including telecommunications to access information and enhance personal and professional productivity.
11. apply technology to increase productivity.
12. use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.
VI. SOCIAL, ETHICAL, LEGAL, AND HUMAN ISSUES - Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

13. model and teach legal and ethical practice related to technology use.
14. apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
15. identify and use technology resources that affirm diversity.
16. promote safe and healthy use of technology resources.
17. facilitate equitable access to technology resources for all students.

IF YOU HAVE A DOCUMENTED DISABILITY AND WISH TO DISCUSS ACADEMIC ACCOMMODATIONS, PLEASE CONTACT THE INSTRUCTOR AS SOON AS POSSIBLE.

Readings and Materials: Students will need to obtain:

3. Zip Disk or Disk on Key
4. An e-mail account (GMU provides free to students)

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, assigned projects, and participate in on-line discussions.
3. Students missing a class are responsible for completing any assignments, readings, etc. before the start of the next class.
4. All written assignments (with the exception of the observation log) must be completed on a word processor. Assignments are to be turned in at the beginning of class on the date due. Late assignments will not be accepted without making arrangements with the instructor in advance of at least five days. Assignments may also be sent through e-mail.

Course Assignments:
1. Software Reviews (10%): Students will preview at least five educational technology software programs which focus on the subject matter discipline they plan to teach. Different technology areas (i.e. videodisks, hypermedia, computer software, and CD-ROM discs) will be previewed. Then, students will select two of the previewed pieces of software to complete a comprehensive software evaluation. Particular attention should be paid on ways to use the program within the classroom.
2. Video Case Studies (10%): Students will examine five video case studies/exhibits, to be chosen by the instructor. These video case studies will be chosen from either the Digital Edge or InTime Projects. Students will reflect on the lesson presented and will discuss the case studies on Blackboard.
3. Unit Lesson Plans (20% each): Students will create two unit lesson plans (preparation for at least one week) which use technology as part of the instruction. In each lesson, students will specifically outline how they will use the technology they have selected to teach the subject matter. Each unit plan will be accompanied with an essay describing the design features which support the plan.
4. Hypermedia Project (10%): Students will create a hypermedia project of their own choosing. This may be done individually or in pairs. Students may use either PowerPoint or HyperStudio.
5. WebQuest Project (10%): Working in pairs, students will design and create a WebQuest.
6. Portfolio (15%): Students will maintain an electronic portfolio that shows what they have learned during the course. The Learning Outcomes for the course should be the framework for
Students will maintain a collection of class assignments, original activities and written reflections that explain how these tools and instructional practices can enhance instruction.

7. **Blackboard Discussion Board Reading Response** (5%) Students will post their responses to weekly assigned readings on Blackboard.

**Special Note:** Although time will be provided in class to work on projects, it will be impossible to complete all projects in class. Therefore, it will be necessary for students to have access to computers outside of class. Students should note the CIET lab hours as well as the hours of other labs around campus.

**Evaluation:** Since this is a graduate level course, high quality work is expected on all assignments and in class. Grades will be based on the completion of course requirement and on the scope, quality, and creativity of the assignments. All assignments will be graded. All assignments are due at the beginning of classes. **Late assignments will not be accepted without making arrangements with the instructor.** Assignments may also be sent through e-mail.

In general, oral and written assignments and projects will be evaluated using an A, A-, B+, B, C or F. The following criteria will be used in the form of a grading criteria sheet or a rubric:

- Is the required information presented?
- Is the content of the submission accurate?
- Does the paper cover the issues discussed in class and in the readings?
- Are the ideas presented in a thoughtful, integrated manner?
- Does the project show creativity and original thought?

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**Students are asked to turn off all cell phones and beepers before the start of class.**

**Course Outline/Schedule**

**Naming convention for assignments submitted electronically:** last-name-assignment
(Example: harazin-assignment)

<table>
<thead>
<tr>
<th>Week</th>
<th>In Class Assignments and Topics</th>
<th>Out of Class Assignments</th>
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| 1    | Peer Interview  
<p>|      | Intro to Blackboard <a href="http://blackboard.gmu.edu">http://blackboard.gmu.edu</a>                    | Read Norton and Wiburg, Ch. 1                                                                                |
|      | Introduction to Course Concepts &amp; Syllabus: Interdisciplinary, Integration of Technology        | Today's Technological Challenges                                                                            |
|      | Introduction to the Macintosh                                                                  | Read Norton and Sprague, Preface and Ch. 1                                                                   |
|      | Creating a Personal Logo Using Apple Works Draw/ Paint*                                         | Preface and Technology for Teaching                                                                        |
|      | (Class Activities #1)                                                                             | Post comments in Blackboard #1 (due 1/31)                                                                 |
| 1/24 |                                                                                                  |                                                                                                              |</p>
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<thead>
<tr>
<th>Date</th>
<th>Assignment Details</th>
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| 1/31 | Discuss readings  
How does technology support learning for students?  
What is Integration?  
Higher Level Thinking Skills  
Using MS Word to create a brochure*  
(Class Activities # 2, 3, 4, 5)  
**Blackboard Discussion Entry #1 due** |
| 2/7  | Discuss readings  
Review and share brochures  
Consider other ideas for desktop publishing and word processing*  
A Letter to Don  
A Scientific Conference*  
(Class Activity # 6, 7, 8, 9)  
**Blackboard Discussion Entry #2 due** |
| 2/14 | Discuss readings  
Creating and Using a Database  
Solving and Writing a Mystery  
Ideas for integration of database*  
Good Thinking?**  
Fact or Myth? **  
Ideas for using spreadsheets*  
(Class Activities # 10, 11, 12, 13, 14, 15, 16, 22)  
**Software Review 1 Due*** |
| 2/21 | Discuss readings  
Welcome to the WWW  
Sorting and Evaluating Websites  
DEAPR  
**Work on Unit Plan and Essay (due 2/28)** |

*Read Norton and Wiburg, Ch. 2  
Designing Opportunities for Learning  
Read Norton and Sprague, Ch. 3  
Computer Graphics: Seeing and Rendering  
Read Norton and Sprague, Ch. 4  
Word Processors, Desktop Publishers, and Web-based...  
**Post comments in Blackboard #2 (due 2/7)**  
Leaders:  
Preview software (review due 2/14)  
Read Norton and Wiburg, Ch. 4  
Designs for Knowledge  
Read Norton and Sprague, Ch. 5  
Databases: Organizing and Analyzing Information  
**Work on Software Review 1 (due 2/14)**  
**Work on Unit Plan and Essay (due 2/28)**  
View Video #1 and Blackboard entry (due 2/21)  
**Work on Unit Plan and Essay (due 2/28)**  
Read Norton and Sprague, Ch. 2  
Skills Software: Drilling and Practicing  
**Work on Unit Plan and Essay (due 2/28)**
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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>2/28</td>
<td>Discuss <em>Viajamos</em> Inspiration software <em>Zerkonians Are Coming!</em> Planning for a WebQuest (Inspiration)* (Class Activities # 23, 24, 25, 26, 27)</td>
<td>2/28</td>
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<tr>
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<td><em>Video #1 Response on Blackboard due</em></td>
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<tr>
<td>2/28</td>
<td>Discuss readings Work on <em>Zerkonians Are Coming!</em></td>
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<td></td>
<td><strong>Unit Plan 1 Due</strong>*</td>
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<tr>
<td>3/6</td>
<td>Discuss readings <em>Zerkonian WebQuest</em></td>
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<td><strong>Video #2 Response on Blackboard due</strong></td>
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<td>3/20</td>
<td>Discuss readings Share Zirkonians Projects* Atributes of a true WebQuest Create a scenario for your WebQuest (Class Activities # 28, 29)</td>
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<td><strong>Blackboard Discussion Entry #3 due</strong></td>
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<tr>
<td>3/27</td>
<td>Create a <em>WebQuest</em> (Class Activities # 30, 31, 32, 33, 34, 35)</td>
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<td><strong>Video #3 Response on Blackboard due</strong></td>
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<td><strong>Blackboard Discussion Entry #4 due</strong></td>
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<td><strong>Portfolio Check</strong> (Must contain at least 6 items-class assignments and original activities)</td>
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- Read Norton and Sprague, Ch. 9 Mathematical Devices: Computing and Modeling
- View Video #2 and Blackboard entry (due 3/6)

- Read Norton and Wiburg, Ch. 8 Designs for Community
- Read Norton and Wiburg, Ch. 7 Designs for Using Information
- Post comments in Blackboard #3 (due 3/20)

- Invent a WebQuest Scenario
- View Video #3 and Blackboard entry (due 3/27)
- Work on Software Review 2 (due 4/3) Work on Unit Plan and Essay #2 (due 5/1) Work on portfolios (due 5/8)

- Read Norton and Sprague, Ch. 7 Simulations: Experimenting and Structuring
- Post comments in Blackboard #4 (due 4/3)
- Leader: Work on Software Review 2 (due 4/3)
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<tr>
<th>Date</th>
<th>Assignment</th>
<th>Reading and Activity</th>
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<tr>
<td>4/3</td>
<td>Discuss readings with reflections. Work on WebQuest</td>
<td>Read Norton and Wiburg, Ch. 9 Designing systems of Assessment</td>
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<td>Read Norton and Sprague, Ch. 6 Telecommunications: Communicating and Accessing</td>
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<td>Post comments in Blackboard #5 (due 4/10)</td>
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<td>Leader: View Video #4 and Blackboard entry (due 4/10)</td>
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<td>Work on Unit Plan and Essay #2 (due 5/1)</td>
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<td>Work on portfolios (due 5/8)</td>
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<tr>
<td>4/10</td>
<td>Discuss readings. Work on WebQuest. Software Review 2 Due*. Blackboard Discussion Entry #5 due</td>
<td>Read Norton and Wiburg, Ch. 10 Designing Learning Environments</td>
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<td>Video #4 Response on Blackboard due</td>
<td>Work on Unit Plan and Essay #2 (due 5/1)</td>
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<td>Work on portfolios (due 5/8)</td>
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<tr>
<td>4/17</td>
<td>Discuss readings. Share WebQuests*. 2nd Unit Plan Due*</td>
<td>Read Norton and Sprague, Ch. 8 Multimedia/Hypermedia: Representing and Connecting</td>
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<td>2nd Unit Plan Due*</td>
<td>View Video #5 and Blackboard entry (due 4/24)</td>
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<td>Work on Unit Plan and Essay #2 (due 5/1)</td>
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<td>Work on portfolios (due 5/8)</td>
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<tr>
<td>4/24</td>
<td>Discuss readings. Decisions, Decisions*. (Class Activities # 37)</td>
<td>Read Norton and Sprague, Ch. 10 Emerging Technologies: Virtual Learning</td>
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<td>Video #5 Response on Blackboard due</td>
<td>Work on Unit Plan and Essay #2 (due 5/1)</td>
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<td>Work on portfolios (due 5/8)</td>
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<tr>
<td>5/1</td>
<td>Discuss readings. Sharing Portfolios</td>
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<tr>
<td>5/8</td>
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*Class assignments for portfolio.
**Choose one **activity to be included in portfolio
Searching and Evaluating Websites

1. Evaluation of Information - Lisa Janicke Hinchliffe, Reference Librarian, Parkland College Library

2. Checklist for an Informational Web Page - Wolfgram Memorial library, Widener University

3. WWW Cyberguides - Karen McLachlan, Library Media Specialist at East Knox High School, Ohio


Online Resources

Telnet Information Page - information on accessing GMU accounts from home

Early Childhood Websites - appropriate sites for young children, identified by EDIT 504 students, Summer 1998

Dr. Super's Real and Virtual Math Manipulatives - an original example of an on-line workshop developed by several GMU faculty and based on the idea of an electronic book by Roger Shank of Northwestern University.

Expanding Universe - a classified search tool for amateur astronomy, useful to K12 teachers as a rich source of Internet materials for teaching purposes.

Tips on Choosing Software for Schools - useful article on choosing appropriate software. Written by Tammy Payton.

Educational Software Resources - links to a wide range of resources for locating educational software, for locating reviews, and, in general, getting to the software options available to educators.

Kathy Schrock's Guide for Educators - a categorized list of sites useful for enhancing curriculum and professional growth. It is updated daily to include the best sites for teaching and learning.