EDIT 504: Introduction to Educational Technology
3 Credit Hours

Instructor: This course is usually taught by adjuncts. If you are currently enrolled in the course please contact your instructor.
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Note: This syllabus is subject to change and should only be used as an example.

Learning Outcomes

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, virtual field experiences through online videos, software evaluations, 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 <http://www.pen.k12.va.us/VDOE/Compliance/TeacherED/tech.html>:

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.


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 <http://cnets.iste.org/students/s_stands.html>).
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:

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

1. use technology resources to engage in ongoing professional development and lifelong learning.
2. continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.
3. use computer-based technologies including telecommunications to access information and enhance personal and professional productivity.
4. apply technology to increase productivity.
5. 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:

1. model and teach legal and ethical practice related to technology use.
2. apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
3. identify and use technology resources that affirm diversity.
4. promote safe and healthy use of technology resources.
5. facilitate equitable access to technology resources for all students.

Readings and Materials: Students will need to obtain:

3. Flash drive (also known as 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 must be completed on a word processor.
5. 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 at least 5 days prior to the due date of the assignment. Assignments may also be sent through e-mail or posted in the Drop Box in Blackboard <http://blackboard.gmu.edu/>.

Course Assignments:

1. Software Reviews (10% each): 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 one 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. Students must review Inspiration or Kidspiration for one of their Software Reviews.

2. Video Case Studies (10% total): Students will examine two video case studies/exhibits, to be chosen by the instructor. These video case studies will be chosen from either the Digital Edge <http://ali.apple.com/ali_sites/deli/index.shtml> or InTime Projects. Students will reflect on the lesson presented and will discuss the case studies on Blackboard <http://blackboard.gmu.edu/> under the Discussion Board.

3. Unit Lesson Plans (15% each): Students will create two unit lesson plans (preparation for at least one week) which use technology as part of the instruction. Students need to refer to state standards as a focus for the unit. Objectives for each lesson should be present as well as a mechanism or tool that will be used to determine if students met the objectives in the 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. Video/Desktop Publishing Project (20%): Students, in small groups, will create and edit a political advertisement of the perfect presidential candidate using a variety of media.

5. WebQuest Project (10%): Working in pairs, students will design and create a WebQuest.

6. Technology Integration Plans (10%) Students will submit integration planning sheets which will demonstrate their understanding of integration as well as the use of technology tools.

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 GSE computer lab hours (Robinson A350 and A352) as well as the hours of other labs around campus.
Evaluation: Grades will be based on completion of course requirements and on the scope, quality, and creativity of the assignments. Once feedback and a grade are received on the first unit lesson plan only, if a higher grade is desired the student can resubmit a revised unit lesson plan within two weeks. The grade assigned to the revised first unit lesson plan is final. Assignments are assessed using a rubric, which will be provided to students prior to assignment due dates. The extent and quality of contribution to the course asynchronous discussions on Blackboard <http://mason.gmu.edu/%7edspragu1/http;/ /blackboard.gmu.edu> count as 15% of the final grade and are not subject to revision; an interim grade will be provided at mid-semester for informational purposes. Incompletes in the course will be given only under unusual extenuating circumstances.

All work prepared outside of class will be assessed for content AND for presentation. Since this is a graduate level course, high quality work is expected on all assignments and in class. High quality means that words are properly spelled; punctuation is appropriate; sentences are complete; verb/subject, pronoun/antecedent agree; and writing is appropriately concise and clear. All written assignments must be completed on a word processor. Proofread all assignments and correct errors before submitting the final paper.

Grading Scale:
A+ = 100  A = 92 - 99  A- = 90 - 91   B+ = 86 - 89
B = 80 - 85  C = 79 - 70  F = Below 70

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

Course Outline/Schedule

Week

In Class Assignments and Topics

Out of Class Assignments

1
8/31

Introduction to Course Concepts & Syllabus: Interdisciplinary, Integration of Technology
Introduction to Blackboard <http://blackboard.gmu.edu/> What is Technology Integration? <Technology_Integration.html>Class Activity #1 Higher Level Thinking <Higer_Level_Thinking_Skills.html>Class Activity #2 Creating a Personal Logo Using Graphics Class Activity #3 Read Norton and Sprague, Preface, Ch. 1, and Ch. 6
Obtain all materials Establishing a GMU e-mail account
9/7

Discuss readings
Creating a Database
Solving and Writing a Mystery
The Perfect Presidential Candidate - using a database #4 and #5
    Read Jonassen, et. al., Ch. 1
Read Norton and Sprague, Ch. 5
Preview software
Work on Software Review 1 due 9/21
Subscribe to a Listserv of your choice

9/14

Discuss readings
The Perfect Presidential Candidate-Desktop Publishing #4
Lights! Camera! Action! Creating a video
http://www.microsoft.com/windowsxp/using/moviemaker/getstarted/default.mspx
http://www.microsoft.com/windowsxp/using/moviemaker/getstarted/default.mspx%20
http://blackboard.gmu.edu/ Read Jonassen, et. al., Ch. 2
Read Norton and Sprague, Ch. 2
Work on Software Review 1 due 9/21
Work on Unit Plan and Essay due 10/19

9/21

Discuss readings
Editing the video
Introduction to Digital Edge Project
Introduction to InTime Project <http://www.intime.uni.edu/>
Software Review 1 Due Read Jonassen, et. al., Ch. 5
Read Norton and Sprague, Ch. 3
Work on Unit Plan and Essay due 10/19

9/28

Discuss readings
Work on videos
<http://mason.gmu.edu/%7Edspragu1/EDIT504.html#Evaluate> Read Jonassen, et. al., Ch. 3
Work on Unit Plan and Essay due 10/19

10/5
Discuss readings
Work on Presidential brochure and videos

Read Norton and Sprague, Ch. 7
Work on Unit Plan and Essay due 10/19
Video Case Study #1 Digital Edge- Elementary-Travel to Mexico Post
response in Discussion Board on Blackboard
<http://blackboard.gmu.edu/>due 10/12
http://ali.apple.com/ali_sites/deli/exhibits/1000155/
Unit Plan and Essay due 10/19
10/12

D Presenting videos
Discuss readings
Blackboard Discussion Board Response to Video Case Study #1 Digital
Edge- Elementary-Travel to Mexico Due

Read Jonassen, et. al., Ch. 4
Unit Plan and Essay due 10/19
10/19

Discuss readings
The King's Chessboard #15
Exploring online simulations
Decisions, Decisions - Prejudice <http://tomsnyder.com/>
Sorting and Evaluating Websites
<http://mason.gmu.edu/%7edspragu1/EDIT504.html#Evaluate>
Viajamos <http://www.unm.edu/%7ejeffryes/RETA/viajamos.html>
Unit Plan and Essay Due

Video Case Study #2-. In Time - High School- Ocean Exhibits - Grade 9
Science. Post response in Discussion Board on Blackboard
<http://blackboard.gmu.edu/>due 10/26
http://www.intime.uni.edu/video/004kshs/0/
10/26

Welcome to the WWW
Zerkonians Are Coming! <http://mason.gmu.edu/%7epnorton/Zerkon.html>
# 25, #26, and #27
Video Case Study #2-In Time - High School- Ocean Exhibits - Grade 9
Science due
<http://edweb.sdsu.edu/webquest/webquest.html> Read Jonassen, et. al.,
Ch. 8
Read Norton and Sprague, Ch. 8 <http://blackboard.gmu.edu/>
Work on Software Review 2 due 11/9
10

11/02

Discuss readings
Zerkonian WebQuest <http://mason.gmu.edu/~epnorton/Zerkon.html>
Presentation software
Read Jonassen, et. al., Ch. 9
Read Norton and Sprague, Ch. 9
Work on Software Review 2 due 11/9
11

11/09

Discuss readings
Zerkonian Presentations
Create a WebQuest (#28- # 35) <http://webquest.sdsu.edu/>
Software Review 2 Due

Read Jonassen, et. al., Ch. 6
Read Norton and Sprague, Ch. 4
Invent a WebQuest
12

11/16

Discuss readings
Work on WebQuest and Unit Plan 2
Read Jonassen, et. al., Ch. 7
<http://blackboard.gmu.edu/>Webquest and Unit Plan 2 due 12/7
13

11/30

Discuss readings
Work on WebQuest and Unit Plan 2

Read Norton and Sprague, Ch. 10
Post reflection on Blackboard <http://blackboard.gmu.edu/>
Work on Unit Plan and Essay-due 12/7
14

12/7

Discuss readings
Unit Plan and Essay Due WebQuest due 12/14
15

12/14

<http://users.netmatters.co.uk/dandaforbes/>A GPS treasure hunt
Share and Upload Webquest
GSE Syllabus Statements of Expectations

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See http://gse.gmu.edu/facultystaffres/profdisp.htm for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See http://mail.gmu.edu/ and click on Responsible Use of Computing at the bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See www.gmu.edu/student/drc <http://www.gmu.edu/student/drc> or call 703-993-2474 to access the DRC.

Searching and Evaluating Websites

1. Evaluation of Information
   <http://alexia.lis.uiuc.edu/~janicke/Eval.html> - Lisa Janicke Hinchliffe, Reference Librarian, Parkland College Library

2. Checklist for an Informational Web Page
   <http://www2.widener.edu/Wolfgram-Memorial-Library/webevaluation/inform.htm> - Wolfgram Memorial library, Widener University


4. Critical Evaluation Surveys

Online Resources

Dr. Super's Real and Virtual Math Manipulatives
<http://neptune.galaxy.gmu.edu/~edrsuper/> - 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 <http://vrl.tpl.toronto.on.ca/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
<http://www.siec.k12.in.us/~west/article/soft.htm> - useful article on choosing appropriate software. Written by Tammy Payton.
Educational Software Resources
<http://mason.gmu.edu/~epnorton/software.html> - 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
<http://school.discovery.com/schrockguide/index.html> - 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.

Goggles Directory of Shareware
<http://directory.google.com/Top/Computers/Software/Shareware/Windows/Educationa1/> - a list of shareware programs available on the Internet. Shareware programs may have a small fee attached to them. Download programs at your own risk as viruses are often transmitted through shareware. Be sure your virus definitions are up-to-date before downloading any files. If you do not have a virus protection program on your computer you can purchase Norton Anti-Virus on line at http://www.norton.com/ or McAfee at http://www.mcafee.com/us/ It is worth the money to purchase a virus protection program even if you are not downloading these files.