Course Instructor:

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Course Description:
This is NOT a course on network administration.

This online course provides a short introduction to the basic concepts, terminology, and principles of how computers communicate over networks, particularly the Internet, as a foundation for understanding the ways computer networks are used to support e-Learning. The course will examine the instructional implications of a broad range of traditional and emerging network-based e-Learning tools and technologies related to peer-to-peer computing, social computing, virtual learning systems (LMS/CMS), mobile learning (wireless, handhelds), streaming, telecommunications, and others. The course focuses on how networks are used to facilitate learning through personal broadcasting, collaboration, information sharing, and knowledge building by exploring tools that enable real-time communication, content syndication via news feeds and podcasts/vodcasts, identity and resource management, and social interaction. The Edit574 course learning environment will integrate weblogs, wikis, RSS feed readers, social bookmarking, and other tools, and involves high levels of student knowledge construction.

We will be learning about and using software tools that are freely available on the Web or as Open Source software. This has the advantage of training you on software that you can afford to use in your work place or schools.

Course Prerequisites
- PC with Windows XP or Macintosh
- 56k Internet connection (cable/DSL recommended)
- Microphone and speakers (Headset recommended)

Required Reading Materials for Course:

e-Reserves and Online Sources
Primary and supplemental course readings will be drawn from online sources as well as copied articles, chapters, and papers some of which will be made available through GMU Libraries e-Reserves. (Password= network)
Required readings have been selected to enhance both the understanding and application of networking technologies introduced in this course. Students are expected to share reactions through participation in online discussions and weblogs. Students may also be required to research additional articles.

**Recommended Text and Resources:**
- Will Richardson (2006), *Blogs, Wikis, Podcasts & Other Powerful Web Tools for Classrooms*
- There is a broad selection of books on networking fundamentals available from the library and other sources. Examples: *Teaching Yourself Networks in 24 Hours* (SAMS), *Networking for Dummies*, or *Home Networking Simplified*.

**Student Outcomes:**
Students participating in this course will understand the basic purpose and organization of a computer network, and have a greater understanding of how the Internet works and connects to local computer networks. Students will develop skills in choosing network-based tools and technologies to support and enhance instructional applications and strategies.

**Course Objectives:**
As a result of this course, participants will be able to:

- understand how computer networks are used to support educational systems and e-learning tools.
- develop a general understanding of how computer networks (wired and wireless) are organized and the main components, common standards, and protocols associated with multimedia communications and Internetworking.
- share networked learning resources and perform basic Web publishing and social networking operations in both client-server and peer-to-peer configurations.
- identify current network-based technologies and future trends impacting K-12, higher education, business, government and military settings.
- gain fluency configuring and using various asynchronous and synchronous computer-mediated communication and collaboration tools, such as, wiki, weblogs, RSS feeds, VoIP, web conferencing, and other Web 2.0 tools and services.
- gain an awareness of the ways network infrastructures shape learning environments, in particular, be able to evaluate the instructional implications of e-Learning organized around social software tools and services.
Requirements:

Participation in the course – whether through discussions, synchronous meetings, group projects – is mandatory, as these shared experiences are important parts of the course. **Expect to be online approximately 1-2 hours each day or 10-12 hours per week.** The class schedule may change as the course progresses; changes will be posted on the course’s Homepage under **Announcements.**

- Obtaining and regularly using a computer account with access to the Internet is required.
- Students understand that portions of their work will be take place on the open web and that their statements and other artifacts may be publicly discovered.
- Each student is expected to complete all readings and class exercises and contribute to in-depth asynchronous threaded and synchronous discussions as assigned by the instructor or as part of a class team’s lesson.
- Each student may be expected to install free, Open Source, or trial software approved by the instructor to complete assignments and learning activities.
- To enable individualization of the course to the needs of each student, special arrangements on requirements and assignments may be negotiated in writing with the instructor. Revised assignments typically involve direct, extensive involvement in some project engaged in the design or administration of a network-based educational experience.
- Students missing the due date for an assignment or exercise must make immediate arrangements with the instructor to fulfill that requirement before the next class.

GSE Syllabus Statements of Expectations

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

- Students are expected to exhibit professional behavior and dispositions. See [http://gse.gmu.edu](http://gse.gmu.edu) 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](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](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.
Class Activities:

This course will utilize a combination of reading, online lectures, hands-on experiences, media, guest speakers, discussions, and individual and group projects to help participants understand the strengths and limits of current networking technologies for use in educational environments.

Class Assignments

There will be four major assignment areas that are required for successful completion of this class. Specific grading requirements will be provided on the course site. The following is a breakdown of the requirements and their grade percentage:

I. Discussion Participation (20%)

There will be 2 discussions during the course. I am planning to have the discussions take place in the Course Blog, but may be move this activity to another tool, as needed.

- 10% each for Discussions 1 and 2

New topics or modules are introduced each Monday and you will have several days to complete readings, explore tools, and get to understand the topic before discussing it. Discussions will normally take place from Thursday night through midnight Sunday. Students are expected to participate fully. Participation via electronic discussions is assessed by both quality and quantity of interactions.

Online discussions are the primary way used to collect your understanding of the readings and exercises as well as your reflections on your learning as you engage the course content.

- The Reflective Questions at the end of each module were designed to be used as a self-check of your comprehension of the module content.

II. Lab Exercise Completion (45%)

Students will receive 45 participation points for completing the small individual and group exercises that accompany almost every module of the course. Most of the exercises are designed to guide your exploration of the different network learning tools by directing you to set up an initial account, personalizing it, configuring the tool for collaborative work, and completing prescribed tasks.
III. Wiki Group Project (30%)

For this assignment, you will work together with other students to collectively construct a knowledge base, conference/symposium, Personal Learning Environment, book, or a case study on a course topic by using a Wiki to assemble your research work, writings, links and other digital assets into the final product.

IV. Computer Network Basics - take home test (5%)

An short “open book” take home exam related to the class learning materials on this topic is planned.

Assessments:

This course is graded on an A, A-, B+, B, B-, C and F basis. Grades will be based on completion of course requirements and on the scope, quality and creativity of the assignments as specified in the assignment rubrics. Incompletes in the course will be given only under unusually extenuating circumstances.

Required Assignments and Values:

I. Individual Participation in Discussions (20%)
II. Exercises (45%)
III. Wiki Group Project (30%)
IV. Computer Network Basics take home test (5%)

Grading Scale:
- A 93 - 100
- A- 90 - 92
- B+ 88 - 89
- B 83 - 87
- B- 80 - 82
- C 70 - 79
- F Below 70

Back to top
# Course Schedule (subject to change)

**NOTE:** You will be notified of any changes to this schedule in the Announcement section of Course Blog

<table>
<thead>
<tr>
<th>Class</th>
<th>Learning Activity</th>
<th>Weekly Assignments</th>
</tr>
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</table>
| **Week 1**  
- Introduction to Computer Networks and e-Learning  
  - Synchronous online meeting (Wed., 5/23)  
    (logon instructions available later)  
    - Student introductions  
    - Review course syllabus and course blog tour  
    - Short lecture on the educational uses of networks  

*Each new module starts on Monday nights.*  
1. **Complete readings and pre work**  
2. **Join discussions which open on Thursday and go through Sunday night.**  
3. **Complete exercises and start/continue wiki group work** | **Readings**  
- GMU Libraries [E-Reserves](#) (password= network)  
- Horton textbook: **E-Learning Tools and Technologies:**  
  - Ch 1, 2, 3; and Pp 147-148  
  - [Emerging Technologies report](#) by ACT  
  - JISC report; **What is Web 2.0** by Paul Anderson  
- Other primary online materials referenced  

**Week 2**  
5/29 – 6/3 | **Module 2: Computer Networking Fundamentals**  
- **Networks for e-Learning lecture**  
  - Introduction to types of networks and components  
  - Introduction to Internetworking & TCP/IP  
  - Wireless networking  
  - Network servers: web/media servers etc.  
  - **Client-server vs. Peer-to-Peer models**  
    - **Client-server Model**  
      1. Enterprise Learning Systems applications  
    - **P2P model**  
      1. P2P applications: IM, Groove, Kazaa, Skype, BitTorrent | **Readings**  
- Continue readings from Week 1  
  - GMU Libraries [E-Reserves](#) (password= network)  
  - [Emerging Technologies report](#) by ACT  
  - JISC report; **What is Web 2.0** by Paul Anderson  
  - Self-directed tutorial learning -- Fundamentals of Communication  
  - Watch online movie **Warriors on the Net**  
  - History of the Internet  
  - Other primary online materials referenced  

- **Complete Exercises for Week #2**  
- **Wiki Group Project**  
  - Complete group project charter / milestones by 6/3
<table>
<thead>
<tr>
<th>Week 3 6/4 – 6/10</th>
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<tbody>
<tr>
<td>(optional) Live online meeting in Connect at 7pm</td>
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<tr>
<td><strong>Module 3: Instructional Implications: Computer-Mediated Communication, Collaboration, and Social Software Tools</strong></td>
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<tr>
<td>- Computer-Mediated Communication</td>
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<tr>
<td>- Introduction and History of Social Software</td>
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<tr>
<td>- Communication tools</td>
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<tr>
<td>- Voice over Internet Protocol (VoIP)</td>
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<td>- Collaboration tools and best practices</td>
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<tr>
<td>- Polls / Voting</td>
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<tr>
<td>- Weblogs, Wiki</td>
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<td>- Photo archives (Flickr)</td>
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<tr>
<td>- Social Bookmarking Tools</td>
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<tr>
<td>1. Tagging / Folksonomy</td>
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<tr>
<td><strong>Readings:</strong></td>
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<tr>
<td>- TBA</td>
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<tr>
<td>- Continued readings:</td>
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<tr>
<td>- Emerging Technologies report by ACT</td>
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<tr>
<td>- JISC report; What is Web 2.0 by Paul Anderson</td>
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<tr>
<td>- History of Social Software</td>
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<tr>
<td>- Other primary online materials referenced</td>
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**Online Discussion #1**

**Complete Exercises for Week #3**

**Wiki Group Project work**

<table>
<thead>
<tr>
<th>Week 4 6/11 – 6/17</th>
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<tbody>
<tr>
<td><strong>Module 4: Instructional Implications: Content Syndication via RSS (Really Simple Syndication)</strong></td>
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<tr>
<td>- RSS aggregator</td>
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<td>- Types and Tasks</td>
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<tr>
<td>- XML / RSS coding</td>
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<tr>
<td>- Best practices</td>
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<tr>
<td>- Instructional advantages</td>
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<td>- Advanced Feed-making</td>
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<td>- Social networking tasks</td>
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<tr>
<td>- Podcasting</td>
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<tr>
<td><strong>Readings:</strong></td>
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<tr>
<td>- Will Richardson -- Introduction to RSS QuickGuide</td>
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<tr>
<td>- Other primary online materials referenced</td>
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**Online Discussion #2**

**Complete RSS Exercises for Week #4**

**Wiki Group Project work**

<table>
<thead>
<tr>
<th>Week 5 6/18–6/21</th>
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<tbody>
<tr>
<td><strong>Module 5: Emerging Trends / Future of Web 2.0</strong></td>
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<tr>
<td>- Web as Network Platform or Operating System</td>
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<tr>
<td>- Networked Learning / Social Networks</td>
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<tr>
<td><strong>Course Wrap-up/ Course evaluations</strong></td>
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<tr>
<td><strong>Readings:</strong></td>
</tr>
<tr>
<td>- JISC report; What is Web 2.0 by Paul Anderson</td>
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<tr>
<td>- Movie: EPIC 2015 (view updated 2015 version)</td>
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<tr>
<td>- Other primary online materials referenced</td>
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**Final Class -- Online meeting/lecture/presentations**

**Group Wiki Due: Student live presentation of research project**

**All exercises due**