Instructional Computing I provides an overview of the practical and theoretical issues related to the use of microcomputers and other on-line technologies in instruction. A range of topics is covered including the use of technology for effective learning and instruction, equity issues, introduction to electronic communication and distance education tools and critiques of technology in instruction. Basic computer literacy is a goal of the course with literacy defined broadly as both acquiring (or honing) skills and developing a disposition toward using technology that is thoughtful, critical, creative and appropriate. Students will use on-line tutorial resources to learn the basics of productivity applications such as word processing, spreadsheets, databases and presentation manager software.

Table 1: Equivalence of On Campus and On-line Course Activities

<table>
<thead>
<tr>
<th></th>
<th>On Campus Delivery</th>
<th>On-line Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office Hours</strong></td>
<td>Regular campus office hours and e-mail</td>
<td>Online office hours (chat room) and e-mail</td>
</tr>
<tr>
<td><strong>Syllabus/Schedule</strong></td>
<td>Distributed in hard copy at first on site class meeting</td>
<td>Available on-line using course management software</td>
</tr>
<tr>
<td><strong>Readings</strong></td>
<td>Two texts plus reading packet and on-line web resources</td>
<td>Two texts plus reading packet and on-line web resources</td>
</tr>
<tr>
<td><strong>Class Meetings</strong></td>
<td>Regular campus meetings and on-line threaded discussion</td>
<td>On-line facilitated threaded discussions, chat rooms, listserv (e-mail) and telephonics</td>
</tr>
<tr>
<td><strong>Evaluation of Students</strong></td>
<td>Written assignments</td>
<td>Submitted as text files via on-line drop box in course management software</td>
</tr>
<tr>
<td>- Self Assessment/Peer Assessments</td>
<td>Submitted as paper and group project presentation. Student scheduled meetings as needed</td>
<td>Submitted as on-line text and project posting. Group work done on-line using group space. Both through use of on-line course management software features</td>
</tr>
<tr>
<td>- Collaborative project</td>
<td>Submitted and presented to class</td>
<td>Submitted as on-line text and project posting with accompanying threaded discussion critiques</td>
</tr>
<tr>
<td><strong>Class Participation</strong></td>
<td>In-class discussions, on-line discussion participation, e-mail, listservs</td>
<td>In-class discussions, on-line discussion participation, e-mail, listservs, and telephonics</td>
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<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Length of Course</strong></td>
<td>Regular university term</td>
<td>Per graduate school guidelines &quot;roughly that of a semester term.&quot;</td>
</tr>
<tr>
<td><strong>Course Evaluation</strong></td>
<td>In-class evaluations</td>
<td>On-line evaluation</td>
</tr>
</tbody>
</table>
On Campus EDC 547 Syllabus

EDC 547: Instructional Computing I  
Professor: Joan Mazur  
Office: 257-4896 - Taylor Ed. Building 114  
Hours: Monday 1-3 p.m. (or by appointment).  
E-Mail: jmazur@pop.uky.edu

Required Readings:

Course Readings: available at Johnny Print on Limestone.


Website Accompanying Jonassen: www.prenhall.com/jonassen

Class web site: http://www.blackboard.com/courses/EDC547JM

Class on-line skills tutorials: NetG available at www.uky.edu (free to UK students and staff)

Computer Terms Dictionary:

A current compendium of computer terms is available at http://www.techweb.com/encyclopedia

Course Goal:

This course provides an overview of the practical and theoretical issues related to the use of microcomputers and technology in instruction. A range of topics is covered including the use of technology for effective learning and instruction, equity issues, introduction to electronic communication tools and basic classroom networks, and critiques of computers in instruction. Basic computer literacy is a goal of the course, with literacy defined broadly as both acquiring (or honing) skills and developing a disposition toward technology that is thoughtful, critical and creative. Students will use an on-line NetG resource to learn the basics of word processing programs, constructing a spreadsheet, compiling a database, and using a presentation manager.

Approach: ISTE Technology Standards

The International Society for Technology in Education has developed standards for all teachers. Specifically the standards are divided into four groups:
1) Basic Technology Operations and Concepts  
2) Application of Technology and Instruction  
3) Professional and Personal Use of Technology  
4) Societal, Ethical and Human Impact of Technology

Throughout the course, classwork, readings and projects will be referenced to these standards. In addition, you will be expected to assess your work and the work of others according to their relevance to applicable standards.

The ISTE Standards on the web: http://www.iste.org

General Course Objectives

The course is designed to enable interested students to explore the uses of the microcomputer in a variety of instructional contexts. Using assigned readings, class exercises, and the development of demonstration projects using technology, students will study aspects of computer-assisted instruction and interactive computing applications. After completing the course students should:

*understand basic computer terminology, for example, hard drive, random access memory, peripherals, video monitor, interactive multimedia, networking, ethernet, internet, ftp etc.*

*discuss the current status of computers in the schools*
distinguish between applications software and systems software and their functions

distinguish between authoring and computer programming languages and discuss the strengths and weaknesses of each

develop a working knowledge of word processing, spreadsheeting, database construction, presentation managers, and basic web pages.

discuss critiques of computers, such as equity concerns, in educational contexts.

Course Outcomes for Students

Students use instructional computing applications and understand the roles and uses of computers in instruction.

Students select and use instructional computing hardware and software appropriate to instructional goals and settings.

Students use electronic networks for instructional purposes.

Students demonstrate skill using basic productivity software and understand applications of computers as "mindtools" through structured assignments and collaborative projects.

Requirements:

Regular class attendance is expected. Much of the course work involves class exercises, discussion, and presentations. Your active participation is critical, both for your own learning and for the development of the course.

There will be both informal and formal writing assignments. Because many of the written assignments provide the basis for further work, assignments must be done on time.

Informed class discussion requires that reading assignments be done before class. Members of the seminar may be asked to lead selected discussions. A discussion preparation sheet is attached to this syllabus.

Instructional Strategies:

This course uses a variety of instructional strategies designed to meet the needs of various learning styles. Self-assessment and self-regulation are stressed along with peer assistance and collaborative work. Didactic instruction is minimal, but structured skills instruction is the approach used on the NetG package.

Self Assessment:

At the beginning, mid-term, and end of the course you will be asked to rate your technological knowledge using the ISTE standards (there is a link on the course website to these standards). Journal s (which can be electronic) will be submitted at the various assessment At mid-term this summary will include how the work you have done, both readings and skills assignments, has affected (if at all) your self-assessment. Self-assessment and life-long learning are two keys to the development and maintenance of technological literacy.

Collaborative Effort: Web-site Class Discussions

For particular readings, specific focus questions will be assigned. For these assignments you must a) comment on the reading and b) respond to at least one other posting from a class member.

In addition, each student is required to make a weekly e-mail entry to the class web site that comment on readings, personalize readings or lessons from class, or are anecdotes that relate to course material, discussions, or skills assignments. The instructor will comment on entries weekly.

Performance Evaluation of Computing Skills

1) Performance on computing skills will be documented by submitting certificates of completion from the NetG courses you elect based on your own self assessment of progress and in class performance exams.
One application of a database, spreadsheet or communication technology is required. Creativity is encouraged as is the development of a project that you will actually use in your work context. The final project must reflect the use of the application as both a productivity tool and a mindtool.

Case Development/Analysis

For the final project students will write a case which focuses on an instructional computing issue. These will be presented and critiqued in class.

Grading:

Your grade in the course will be based on your (performance on written assignments, your lab work), your final project, and your participation in class.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Self Assessment/Reflective Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Collaborative Work (including on-line work)</td>
<td>25%</td>
</tr>
<tr>
<td>Performance Tasks (NetG &amp; Application)</td>
<td>30%</td>
</tr>
<tr>
<td>Final Case Project</td>
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EDC 547: Instructional Computing I
Professor: Joan Mazur
Office: 257-4896 - Taylor Ed. Building 114
Hours: Monday 1-3 or Monday evening 7-8:00 p.m. using the on-line chat at www.blackboard.com/courses/EDC547 or by appointment using e-mail
E-Mail: jmazur@pop.uky.edu

Required Readings:
Course Readings: Available in two forms: You may purchase a course packet at Johnny Print on Limestone Street, Lexington, KY (859-268-4489), they require a credit card purchase. The materials are also available on the course website, but they must be downloaded and printed out on your local computer.


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Students use electronic networks for instructional purposes.

Students demonstrate skill using basic productivity software and understand applications of computers as “mindtools” through structured assignments and collaborative projects.

Requirements:

This is a web-based on-line course. You must have a multimedia computer (a Mac Power PC with OS9 or higher or a PC Pentium II or higher and an Internet connection.

Regular class attendance is expected. For an on-line course, your postings and work on the Blackboard course management system is logged and documented. This is the equivalent of attending a campus class in person. Your active participation is critical, both for your own learning and for the development of the course.

All assignments are to be submitted using the Student Drop Box on the course management software.

There will be both informal and formal writing assignments. Because many of the written assignments provide the basis for further work, assignments must be done on time.

Informed class discussion requires that reading assignments be done before class. Members of the seminar may be asked to lead selected discussions. A discussion preparation sheet is attached to this syllabus.

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This course uses a variety of instructional strategies designed to meet the needs of various learning styles. Self-assessment and self-regulation are stressed along with peer assistance and collaborative work. Didactic instruction is minimal, but structured skills instruction is the approach used on the NetG package.

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In addition, each student is required to make a weekly e-mail entry to the class web site that comment on readings, personalize readings or lessons from class, or are anecdotes that relate to course material, discussions, or skills assignments. The instructor will comment on entries weekly.

Chats: There will be several on-line synchronous (real time discussions) scheduled at times when all of the class can participate. These will appear on the course calendar when a time can be arranged.

Performance Evaluation of Computing Skills

1) Performance on computing skills will be documented by submitting certificates of completion from the NetG courses you elect based on your own self assessment of progress and performance exams. You must make arrangements for a proctor to supervise your exam. Instructions and constraints on the proctoring arrangement are in the Course Information section of Blackboard. You must select a proctor and they must be willing to supervise you in a computer lab or at a personal computer in a school or work or other professional setting (e.g. a public library). The proctor will then collect the diskette you use and the printout of your work, seal it in an envelope and sign the seal prior to posting. Performance exams must be post-marked by noon the day following the exam date.

2) One application of a database, spreadsheet or communication technology is required. Creativity is encouraged as is the development of a project that you will actually use in your work context. The final project must reflect the use of the application as both a productivity tool and a mindtool.

Case Development/Analysis

For the final project students will write a case which focuses on an instructional computing issue. You will post the case to the Course Documents section and critique each other’s cases using the Discussion Board in the Communication Tools section of Blackboard.

Grading:
Your grade in the course will be based on your (performance on written assignments, your lab work), your final project, and your participation in class.

Self-Assessment/Reflective Assignments 10%
Collaborative Work (including on-line work) 25%
Performance Tasks (NetG & Application) 30%
Final Case Project 25%
Class Participation 10%