



### Course Syllabus

<b>COURSE NUMBER:</b> <b>EDTC 5040</b>	<b>COURSE TITLE:</b> Intro to Computer Graphics	<b>TERM</b> <b>Fall 09</b>
<b>SITE: Online</b>	<b>INSTRUCTOR CONTACT INFORMATION:</b> <b>Ken Reiss</b> <b>reissk@webster.edu</b>	<b>CREDIT HOURS: 2</b>

•This syllabus is subject to change at the discretion of the instructor.

#### **COURSE DESCRIPTION:**

This course is intended to help the student build a foundation using current graphics software as it relates to common internet and desktop publishing use.

1.

#### 2. LEARNING OUTCOMES

Course Outcomes	SOE Goals, SOE Dispositions, and MoSTEP/Prof Standards Addressed
To achieve a basic familiarity with the computer and its operation	NETS 1A
To gain a working knowledge of the software featured in the course and to apply the software to internet or printed publication projects.	NETS 1B, 1C
To understand the fundamental types of graphics and appropriate application for each.	This course will help the student integrate graphics (both printed and electronic) into other projects to increase overall effectiveness and impact of both written and web communications. (NETS 1C & VI-B)
To understand and apply copyright and ethical standards to both graphics and text as appropriate.	NETS VI-A
To promote safe and healthy use of the technology	NETS VI-C

## Expectations:

Students are expected to spend approximately 3 hours per week per credit hour on outside activities. That's a total of 6 hours average per week. Some weeks will be heavier than others and some exercises may take you longer than someone else. That time might break down as follows in a typical week:

Reading online materials, articles and other content	1-2 hours
Hands on Exercises and projects from the book or otherwise (sometimes these are turned in, sometimes something else will be turned in after completion of the book exercises)	2-3 hours
Completion of additional assignments for the week including participation in discussion groups, articles or written assignments	1-2 hours

Not all weeks will have all the components, so adjust accordingly.

Students are expected to have access to both book and software (see below under Resources) not later than the 2nd week of class. If you cannot complete that please contact the instructor immediately. It may be preferable for you to withdraw and retake the course when you have access to the software and book. Students are expected to keep up with the class and meet deadlines as set. It is very difficult to catch up once you fall behind.

Schedule of topics, class preparations and assignments, lectures, discussions, student presentations, out-of-class assignments and exams. (Precise chapters will vary by book and will be given each week in the classroom or online)

### Week 1

Introduction to computer graphics. Graphics created with dots versus graphics created with objects or vectors. Resolution versus output quality. Storage requirements, web transmission times. Line Art and Bitmaps versus Photographs and Illustrations. Applications for graphics in the classroom. Applications for graphics on the web.

### Week 2

Photoshop tools and Palettes. Tools: Options Bar, Airbrush, Paintbrush, Cloning Tool, Eraser. Selections: Selection tools, Working with selections. Image correction and adjustment. Harmony and symmetry. Balance.

### Week 3

Layers: Working with layers Layers Palette, merging layers, History Palette. Combining images: Filters and Effects, Handling Type in Photoshop: Type special effects, Type warping, Type layers.

### Week 4

Graphics for the Web. Creating JPG versus GIF images, Limitations of formats. PNG.. Extract image function, ImageReady Slicing images, Creating rollover effects and buttons. Output in HTML format.

### Week 5

Graphics for Print. Working with Photos. Scanning (if available) Types of images for print, Working with illustrations and clip art. Modifying images for Offset Print.production. Color models.

### Week 6

Animation in Imageready.

### Week 7

Working with Vector based Graphics. Drawing Bezier Curves. The Adobe Pen tool. Bezier curves in Photoshop or Illustrator. Creating Vector shapes. Fill and Stroke, color palette. Working with objects. Stacking order. Pathfinder.

### Week 8

Final- Hands on project.

3.

**RESOURCES:**

**Classroom:**

Required Text(s): Adobe Classroom in a Book: Photoshop CS3. Adobe Press ISBN 0-321-49202-1

If you are taking the class in the classroom, you will also need a mass storage device for storing class samples and assignments. Recommended options are:

USB Flash Drive – 128 MB Minimum

Zip Disk- 100 MB or 250 MB. MAC FORMAT

If you choose to purchase this before the first class please make sure it is Macintosh OS X compatible.

Software is provided in the classroom. It is not required that you have your own copy of the software. If you choose to buy the software you may get a different version than is installed in the classroom. See the instructor for more details and to make sure you get the correct book.

Information on purchasing the software through the school can be found here:

<http://www.webster.edu/helpdesk/students/software.shtml>

**OnLine:**

Students taking the class online will need the software as well as the book.

**SOFTWARE:** You **MUST** have access to Adobe Photoshop for this course. This is generally the most current version but check with your instructor for the specific version required in this section. Adobe Illustrator is recommended but not required.

Pick **ONE** of the following:

**Strongly Recommended:****Adobe Photoshop CS4**

Required Text(s): Adobe Classroom in a Book: Photoshop CS3. Adobe Press ISBN 0-321-57379X

**Adobe Photoshop CS3**

Required Text(s): Adobe Classroom in a Book: Photoshop CS3. Adobe Press ISBN 0-321-49202-1

**Required**

Adobe Photoshop CS2

Required Text(s): Adobe Classroom in a Book: Photoshop CS2. Adobe Press ISBN 0-321-32184-7

**Acceptable:**

Adobe Photoshop CS

Required Text(s): Adobe Classroom in a Book: Photoshop CS. Adobe Press ISBN 0-321-19375-X

*If you're going to also take the Desktop Publishing course, I strongly recommend you purchase the Adobe Creative Suite Design Collection from the bookstore. It provides Photoshop (this course) and InDesign (Desktop Publishing course) plus Illustrator and the full version of Acrobat for the same price as Photoshop and InDesign purchased separately.*

Information on purchasing the software through the school can be found here:

<http://www.webster.edu/helpdesk/students/software.shtml>

**Buy the book for the version of the software that you have:**

Supplemental Readings: (list and indicate how these are to be used)

- 4. EVALUATION: (basis of evaluation with explanation regarding the nature of the assignment and the percentage of the grade assigned to each item below)**

Assessments	Links to Course Outcomes	Percentage of Grade
Class Assignments		40%
Final Project (Key Assessment)		40%
Participation		20%

## 6. GRADING SCALE

**A- 100-90%**

**B- 89%-80%**

**C-79%-70%**

**Note: ALL PAPERS/PROJECTS MAY BE RETURNED VIA A SELF-ADDRESSED, STAMPED ENVELOPE. PAPERS ARE NOT AVAILABLE FOR PICK-UP IN THE SOE OFFICE.**

## ACADEMIC HONESTY POLICY

**Students at Webster University are expected to practice academic honesty.**

### Avoiding Plagiarism

Plagiarism is intentionally claiming that another person's work is his/her own or implying that another person's work is his/her own (through inadequate or inaccurate citations of reference material.)

#### Students:

- Should not copy whole portions of text from another source as a major component of papers or projects.
- Should identify the title, author, page number/webpage address, and publication date of works when directly quoting small portions of texts, articles, interviews, or websites.
- Should appropriately identify the source of information when paraphrasing (restating) ideas from texts, interviews, articles, or websites.
- Should follow the guidelines of the American Psychological Association Style Guide when referencing all research sources.

#### Consequences of Academic Dishonesty:

For further information about the consequences of academic dishonesty please consult the Webster University Student Handbook.

## Final Project: Pictorial Story

For the final project, it is your mission to create 8 – 10 Photoshop documents that tell a pictorial story with an educational focus. For example, you might create a story that teaches shapes, the alphabet, chemistry, etc. Or perhaps it will be a story with a moral, such as, don't cheat or eat good food! It might also be less story-like and more a series of charts that teach concepts, like how to be safe in a science lab, or slides of a rocket projectile that explains Physics concepts.

The project should have the following "Required Elements":

Raster images that have been edited in Photoshop

Original artwork- That is photographs or drawings you have created, edited or enhanced. You may start with your own digital images, or use images that you have found elsewhere. You can search Google Images for almost any topic. You can also download low res images from Adobe Bridge Stock Photos if you have CS2, or there are stock photography sites some of which allow low res downloads as well. There's also flickr.com/creativecommons which allows for many high res files to be downloaded with some restrictions on their use.

Use of text in Photoshop

8-12 well developed images. This may vary by topic... some pictures will be more difficult to create, while other topics will require more simple pictures to show the concept.

8 good images is quite sufficient. The range is there so that you may finish a topic or some images may be better than others but necessary to make a point. Do not feel that you have to have 12 or 14 if you are satisfied that you have demonstrated your Photoshop skills in 8 (10).

There are not specific requirements for special effects or techniques because they may or may not be appropriate to your topic, and because not everyone has the same capabilities depending on the software version in use.

The pictures should NOT be put together into a presentation in PowerPoint or other software. The preference is that you upload PSD documents with layers in tact so that I can see what you did, but some of them may get too large. You may upload JPEG images, but you probably should also upload a description of what you did to create the image as some things may not be obvious (in fact, the better job you do, the less obvious the edits will be if you think about it).

You may use a few words on each picture to label parts or caption the picture, but do not create "text based" slides like you would in a presentation. Of course, those things can be added later to make the presentation more useful to you in the classroom, but it's not a good example of Photoshop skills for the purpose of the project.

72 to 150 DPI is enough for this project. There is no specific size requirement as it may vary by project. If your topic would benefit from additional "descriptive text" you might keep the resolution a bit higher (150 end) so that you may be able to reuse these in Desktop Publishing if you'd like to expand on the topic. (Now there's a small hint.)

Enjoy!

	Unsatisfactory/Nearing Proficiency	Proficient	Advanced
Number of images	Less than 8, or topic undeveloped. Images that do not appear to demonstrate photoshop skills	8 well developed images that present the desired topic	8-10 Excellent images that demonstrate a command of the software
Topic	Topic not apparent or not demonstrated in the images	Topic apparent in the images, but may require some explanation	Topic presented clearly with minimal text
Image Skills	Images that have not been manipulated in Photoshop or detract from the message of the image	Images combined and manipulated in a way that is obvious but still enhances the image or the message	Highly manipulated images or combined images that look believable or demonstrate the topic. Use of collage effects and other combinations of images to enhance the topic.
Presentation	Images do not appear to belong together or do not appear to have any cohesive message.	Topic is presented and images enhance the information. Backgrounds may be different, or the images otherwise appear different as long as the information is presented.	Images have background or other elements that make them appear to belong together as a set. A graphical connection exists between the images.
Technical Skills	Images have not been edited or skills shown in a way that enhances the images individually or as a group.	Images have been edited and special effects tools used sparingly or other skills demonstrated sporadically throughout the images.  Skills and techniques from the book and class demonstrated	Images have been manipulated in such a way that enhances them and shows off special effects and other photoshop capabilities. Multiple skills demonstrated. Print quality images
Copyright	Copyrighted images used without acknowledgement or outside fair use guidelines	Copyrighted materials used and credited as appropriate with fair use in mind	Copyrighted materials used and credited as appropriate with fair use guidelines. Original content

**RUBRIC****KEY ASSESSMENT**

Student Name:

Assignment: Final Project

<b>Criteria</b>	<b>Unsatisfactory/ Nearing Proficiency</b>	<b>Proficient</b>	<b>Advanced</b>	<b>Points Earned</b>
<b>Relevance of Content to topic / Appropriate to the Classroom</b>	<b>0 Points - 5 Points</b>	<b>9 Points</b>	<b>10 Points</b>	
<b>Number of Images</b>	<b>0 Points - 5 Points</b>	<b>9 Points</b>	<b>10 Points</b>	
<b>Image Skills</b>	<b>0 Points - 5 Points</b>	<b>15 Points</b>	<b>20 Points</b>	
<b>Presentation</b>	<b>0 Points - 5 Points</b>	<b>9 Points</b>	<b>10 Points</b>	
<b>Technical Skills</b>	<b>0 Points - 20 Points</b>	<b>38 Points</b>	<b>40 Points</b>	
<b>Copyright</b>	<b>0 Points - 5 Points</b>	<b>10 Points</b>	<b>10 Points</b>	
<b>Total Points</b>	<b>0 – 45 Possible</b>	<b>0 – 90 Possible</b>	<b>100 Possible</b>	
<b>Comments</b>				

**Rubric ISTE 1A & VI A, C, D (For use in EDTC5040 Computer Graphics)**

**I. TECHNOLOGY OPERATIONS AND CONCEPTS**

Teachers demonstrate a sound understanding of technology operations and concepts.

**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.

NETS.T Standard		Performance Indicator	Measure	Pts
I. a. 1	Demonstrate introductory knowledge of concepts related to technology as defined by NETS for students	State the application and definitions of keywords related to the use of educational technology based on NETS.	100% Accuracy	1 - 3
			70% Accuracy	
			< 69% Accuracy	
I. a. 2	Demonstrate introductory skills related to technology as defined by NETS for students	Expert use of multimedia input & output devices such as scanners, digital cameras, microphones to integrate audio & video media into artifact development.	10 pictures scanned/imported 10 minutes of audio/ video Used in educational publication/s	1 - 3
			6 - 9 pictures scanned/imported 6 - 9 minutes of audio/ video Used in educational publication/s	
			1 - 3 pictures scanned/imported 1 - 3 minutes of audio/ video Used in educational publication/s	
I. a. 3	Demonstrate introductory understanding of concepts related to technology as defined by NETS for students	Through the use of graphic organizers/concept maps, discussion forums and other electronic mechanisms students explain relationships amongst concepts related to technology in educational environments	30 nodes & 4 levels in organizer/map Writing is college level More than 500 words Relevant to NETS concepts	1 - 3
			< 15 nodes & 4 levels in organizer/map Writing is college level Less than 500 words Marginally related to NETS concepts	
			< 10 nodes & 3 levels in organizer/map Writing is college level Less than <300 words No relevance to NETS concepts	
VI. a	Model and teach legal and ethical practice related to technology use.	Demonstrate an understanding of the legal, ethical, cultural, and societal issues related to technology.	Students participate in online discussions or create artifacts related to software piracy, digital divide and gender disparity issues. Issues of copyright and privacy included.	1 - 3
VI. c	Identify and use technology resources that affirm diversity	Discuss diversity issues related to electronic media.	Students produce high quality artifacts that speak to the inclusion of racial, ethnic and gender representations for classroom use.	1 - 3
VI. d	Promote safe and healthy use of technology resources.	Discuss the health and safety issues related to technology use.	Students discuss issues related to long term computer use and privacy issues	1 - 3