New York City College of Technology
The City University of New York

Communication Design Department

COMD 1162 – Raster and Vector Graphics

Course Description
This basic skills course focuses on the two fundamental digital graphic forms: raster and vector graphics. Discussions and projects focus on the best uses and practices for each kind of graphic. The course covers digital imaging terminology and techniques including size, resolution, color space, typographic specifications, curves, histograms, paths, alpha channels, layers, file elements, measurements, compounds and file formats.

2 cl hrs, 2 lab hrs, 3 cr

Prerequisites
None

Course Objectives

INSTRUCTIONAL OBJECTIVES	ASSESSMENT
For the successful completion of this course, students should be able to:	**Evaluation methods and criteria**
(1) Describe and explain the difference between the two fundamental digital graphic forms, raster and vector. Examine the best use and best practices associated with raster and vector.	(1) Projects and quizzes.
(2) Demonstrate active learning.	(2) Group critiques of projects for all media.
(3) Demonstrate professionalism by emphasizing accuracy, correct file preparation, integrity, and timeliness in submitting design projects.	(3) Students will exhibit professionalism by submitting projects on time, in the appropriate file format, and correct specifications set forth for each project. Students will also show professionalism by revising projects based on classroom critiques and self-assessments.

General Education Outcomes

General Education Outcome covered:	How the outcome is covered:
Thinking Critically Think critically to evaluate evidence and the perspectives of others before accepting or formulating an opinion.	Students will develop their critical thinking by participating in class critiques, applying specifications learned in class to their own work and that of classmates
Qualitative Literacy The student will demonstrate the ability to interpret raster and vector digital forms through the creation of conceptually valid digital imagery.	Student projects and in-class discussions of work in progress.
Lifelong Learning The student will demonstrate an awareness of resources for continued lifelong learning.	Students discuss resources and techniques that they can use as references.

Attendance (College) and Lateness (Department) Policies:
The COMD BFA and AAS degrees are design studio programs. In-class laboratory activities and engagement with other students is a significant portion of the courses. Absences more than 10% of the total class hours may result in a 10% drop in a grade due to an inability to meet the deliverables of participation. This may be in addition to other penalties that will be imposed for failure to complete in-class academic requirements. Missing more than 25% of total class meetings will not be permitted. Any two ‘lates' (15 minutes or more) will be equal to 1 absence.

Academic Integrity Standards
Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion. More information about the College’s policy on Academic Integrity may be found in the College Catalog.

Teaching/Learning Method

- Lectures and Readings
- Software Demonstration and Lab Exercises
- Design Projects for all media
- Testing
- Discussion and Critiques
- Peer and Self-Evaluation

Suggested Texts

• **Adobe Photoshop CC Classroom in a Book,** by the Adobe Creative Team. Published by Adobe Press. ISBN-10: 0321827333, ISBN-13: 978-0321827333.

• **Adobe Illustrator CC Classroom in a Book**, by the Adobe Creative Team. Published by Adobe Press. ISBN-10: 032182248X, ISBN-13: 978-0321822482.

• **Lectures, reference and supplemental materials** will also be provided on Blackboard.
These may include the following on-line educational references:
www.adobephotoshoptutorials.com/
www.adobe.com/support/photoshop/
www.adobe.com/designcenter/
www.grafx-design.com/phototut.html
www.pslover.com/
www.smashingmagazine.com/2007/02/03/adobe-illustrator-tutorials/
www.adobeillustratortutorials.com/
www.adobe.com/support/illustrator/
www.learnit2.com/illustrator.html
www.vectordiary.com/illustrator/best-illustrator-tutorials-articles-of-2008/

Grading

• In-class participation	20%
• Two quizzes	20%
• Four projects	60%
TOTAL	100%

Week	Lecture Topic	Laboratory Exercise	Homework Assignment
1	Orientation: Present an outline of the subjects and objectives that are the focus of this course. Review digital imaging fundamentals. Discuss course reference documents. Project 1 Study. This is for students to demonstrate factors and functions of basic raster and vector graphics. Copyright: Discussion of copyright and usage contracts. Review differences in raster and vector graphics, such as attributes of type. Review similarities in raster and vector graphics, such as color modes or compound objects or metadata. Discuss role of designer in the field and role that raster and vector play in designers' workflow. Discuss the science, technology, engineering, aesthetics and math necessary for raster and vector graphics.	Set application settings to follow Project 1 Study specifications. Review factors and functions of basic digital imaging from course material. Focus on the science, technology, engineering, aesthetics and math in raster and vector graphics.. Study the fundamentals of color modes. Practice setting a target color profile in RGB and CMYK modes to match color in all media. Plan non-destructive image edits. Verify metadata in both raster and vector graphic files. Set desktop workspace for planned raster and vector graphics: raster palates include Color (versus color picker), Channels, Character & Paragraph, Info, Layers, and Paths. Vector palates include Color (versus color picker), Character & Paragraph, Stroke (with options), Info, Layers, and Pathfinder.	Focus on course objectives and outcomes. Study related reference documents. Study desktop workspace for planned raster and vector graphics: raster palates include Color (versus color picker), Channels, Character & Paragraph, Info, Layers, and Paths. Vector palates include Color (versus color picker), Character & Paragraph, Stroke (with options), Info, and Pathfinder.
2	Review raster and vector graphic terminology. Discuss terminology and graphic project specifications. Compare raster and vector graphic file sizes. Discuss design of raster and vector graphic base for all media. Isolate the same design function in different raster and vector output. Discuss ideal file formats for raster and vector graphics.	Practice setting the same type content and specifications in both raster and vector graphic files. Make assigned study files, per Project 1 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 1 Study specifications, for raster and vector graphics.

3	Review for Quiz 1. Review raster and vector graphic terminology. Discuss terminology and graphic project specifications. Discuss design of raster and vector graphic base for all media.	Study for Quiz 1. Make assigned study files, per Project 1 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 1 Study specifications, for raster and vector graphics.
4	Administrate Quiz 1 in class. Covers a comparison of raster and vector applications.	Make assigned study files, per Project 1 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 1 Study specifications, for raster and vector graphics.
5	Administrate Project 1 in class. Student demonstration of knowledge and skills with both raster and vector graphics. Students submit one raster file and one vector file. The Project 2 Study is distributed.	Student demonstration of knowledge and skills with both raster and vector graphics. Students submit one raster file and one vector file.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 2 Study specifications, for raster and vector graphics.
6	Discuss design of raster and vector graphic base for all media using Project 2 Study specifications.	Make assigned study files, per Project 2 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 2 Study specifications, for raster and vector graphics.
7	Administrate Project 2 in class. Student demonstration of logically named raster layers, paths & alpha channels. Vector focus is on object shapes and alignment of strokes. Students submit one raster file and one vector file. The Project 3 study is distributed.	Student demonstration of knowledge and skills with both raster and vector graphics. Students submit one raster file and one vector file.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 3 Study specifications, for raster and vector graphics.
8	Discuss design of raster and vector graphic base for all media using Project 3 Study specifications.	Make assigned study files, per Project 3 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents.

			Practice making assigned study files, per Project 3 Study specifications, for raster and vector graphics.
9	Discuss design of raster and vector graphic base for all media using Project 3 Study specifications.	Make assigned study files, per Project 3 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 3 Study specifications, for raster and vector graphics.
10	Discuss design of raster and vector graphic base for all media using Project 3 Study specifications.	Make assigned study files, per Project 3 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 3 Study specifications, for raster and vector graphics.
11	Administrate Project 3 in class. Student demonstration of designing and designating one raster compound object plus basic editing raster graphic color using gray components and emphasizing neutral tone and detail. Vector focus is on transforming type fonts to outline compound graphics having united frames. Students submit one raster file and one vector file. The Project 4 study is distributed.	Student demonstration of knowledge and skills with both raster and vector graphics. Students submit one raster file and one vector file.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 4 Study specifications, for raster and vector graphics.
12	Review for Quiz 2. Discuss design of raster and vector graphic base for all media using Project 4 Study specifications.	Make assigned study files, per Project 4 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents.

			Practice making assigned study files, per Project 4 Study specifications, for raster and vector graphics.
13	Administrate Quiz 2 in class. Covers all of the above factors and functions information from sessions 1 through 12. Discuss design of raster and vector graphic base for all media using Project 4 Study specifications.	Make assigned study files, per Project 4 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 4 Study specifications, for raster and vector graphics.
14	Discuss design of raster and vector graphic base for all media using Project 4 Study specifications.	Make assigned study files, per Project 4 Study specifications, for raster and vector graphics.	Focus on course objectives and outcomes. Study related reference documents. Practice making assigned study files, per Project 4 Study specifications, for raster and vector graphics.
15	Administrate Project 4 in class. Student demonstration of designing and designating one raster compound object plus basic editing raster graphic color using gray components and emphasizing neutral tone and detail. Vector focus is on transforming type fonts to outline compound graphics and vector object shapes made into compound objects, all having united frames. Students submit one raster file and one vector file.	Student demonstration of knowledge and skills with both raster and vector graphics. Students submit one raster file and one vector file.	