I. **OVERVIEW**  
The following information will appear in the 2009 - 2010 catalog

**CMPGR 235 Beginning Photoshop**  
3 Units

*Formerly listed as: CMPGR - 235: Image Manipulation Software*

*Recommended for Success: Before enrolling in this course, students are strongly advised to successfully complete CMPGR 202 / ART 102.*

*Introduction to the techniques and technology of digital imaging and image manipulation software.*

Three maximum completions.  
Field trips might be required.  
(A-F or P/NP - Student choice) Lecture /Lab  
Transfer: (CSU)

II. **LEARNING CONTEXT**  
Given the following learning context, the student who satisfactorily completes this course should be able to achieve the goals specified in Section III, Desired Learning:

A. **COURSE CONTENT**

1. **Required Content:**

   1. Introduction Digital Imaging  
      a. Digital imaging terminology  
      b. History and development of current technologies  
      c. Future directions in technological advances  
   2. Computer Imaging Hardware  
      a. Basic CPU and RAM requirements  
      b. Monitors  
      c. Scanners  
      d. Printers  
   3. Computer Imaging Software Menus and Tools  
      a. The Photoshop toolbox  
      b. Basic value and color adjustment tools  
      c. Filters  
   4. Color Editing  
      a. Hue and saturation, color balance, levels, curves  
      b. Color modes, RGB, CMYK  
   5. Selection Controls  
      a. Feather, invert, refine edges, etc.  
      b. Setting selection parameters  
   6. Masking  
      a. Selection and blending controls  
      b. Alpha channels  
      c. Layer masks  
      d. Quick mask mode  
   7. Filters and Special Effects  
      a. Adding textures, shadows, layering, halation, etc.  
      b. Blends and montage  
      c. Third-party additions and plug-ins  
   8. Typography  
      a. Fonts, styles, point sizes, scaling  
      b. Converting type to paths  
   9. File Formats  
      a. Most commonly used formats – PSD, JPG, TIF, GIF
b. Lossy vs. Lossless file compression
c. Data loss vs. storage and transmission cost considerations

10. Scanning
   a. Bit depth
   b. Resolution and interpolation

11. Image Processing for Specific Output Options
   a. Laser printers
   b. Inkjet printers
   c. Print media
   d. Web pages

12. Ethics of Digital Imaging
   a. Implications of image appropriation
   b. Synthetic vs. analytic image creation
   c. Copyright issues

13. Interface of Art and Science
   a. Relevance and relationship of technology to aesthetics and creative art
   b. Reproduction and marketing issues

2. **Required Lab Content:**

1. Introduction Digital Imaging
   a. Digital imaging terminology
   b. History and development of current technologies
   c. Future directions in technological advances

2. Computer Imaging Hardware
   a. Basic CPU and RAM requirements
   b. Monitors
   c. Scanners
   d. Printers

3. Computer Imaging Software Menus and Tools
   a. The Photoshop toolbox
   b. Basic value and color adjustment tools
   c. Filters

4. Color Editing
   a. Hue and saturation, color balance, levels, curves
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B. ENROLLMENT RESTRICTIONS

1. Advisories

Before enrolling in this course, students are strongly advised to successfully complete CMPGR 202 / ART 102.

C. HOURS AND UNITS

<table>
<thead>
<tr>
<th>INST METHOD</th>
<th>TERM HOURS</th>
<th>UNITS</th>
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<tr>
<td>Lab</td>
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<td>1.00</td>
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<tr>
<td>Disc</td>
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D. METHODS OF INSTRUCTION (TYPICAL)

Instructors of the course might conduct the course using the following method:

1. Lecture.
2. Hands-on demonstration for laboratory assignments.
3. Video and audio visual presentations
4. Streaming video tutorials
5. Reading Assignments
6. Materials will be presented via the Internet through images, and text, asynchronous and synchronous discussion. Additionally students will work with materials from CD-ROMS and printed manuals.

E. ASSIGNMENTS (TYPICAL)

1. EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS
   Time spent on coursework in addition to hours of instruction (lecture hours)
   a. Practical projects given on a weekly basis
   b. Periodic written quizzes
   c. One major practical final project
   d. Written final exam

2. EVIDENCE OF CRITICAL THINKING
   Assignments require the appropriate level of critical thinking
Typical Assignment 1

Students choose a concept to illustrate and scan a series of images related to that theme. Images must be assessed on a number of levels for appropriateness; image quality, lighting, color, etc.

Student then devise a composition using the scanned images. This process requires that students apply problem solving skills combined with basic art and design concepts.

This assignment also allows student to practice and demonstrate knowledge of the software and hardware being used.

Typical Assignment 2

Using an image of their own face taken with the digital camera in the lab as the starting point, students use the technique of selecting, copying, and pasting to create either a "new and improved" you, or, alter portions of their face to create a caricature.

Typical Assignment 3

Students are asked to combine two different views of their face/head along with other images that tell the viewer who they are as a person. Students are encouraged to choose images of things they are passionate about or that are important to them. The finished image should be a visual representation of the student's personality, sensibilities, and opinions.

F. TEXTS AND OTHER READINGS (TYPICAL)


III. DESIRED LEARNING

A. COURSE GOAL

As a result of satisfactory completion of this course, the student should be prepared to:

evaluate digital images using an expanded visual awareness, and to select and apply appropriate Adobe Photoshop tools to accomplish basic image alterations.

B. STUDENT LEARNING GOALS

Mastery of the following learning goals will enable the student to achieve the overall course goal.

1. Required Learning Goals

Upon satisfactory completion of this course, the student will be able to:

a. Demonstrate ability to use electronic imaging software.

b. Discuss and describe expanding visual awareness.

c. Demonstrate ability to use current computer hardware.
d. Create hard copy photographic images for portfolio presentation.
e. Display competence in digital imaging.

2. **Lab Learning Goals**  
   *Upon satisfactory completion of the lab portion of this course, the student will be able to:*

   a. Discuss and describe expanding visual awareness.
b. Demonstrate ability to use current computer hardware.
c. Demonstrate ability to use electronic imaging software.
d. Create hard copy photographic images for portfolio presentation.
e. Display competence in digital imaging.
f. **SECOND COMPLETION:**
g. Demonstrate updated skills reflecting current industry standards as software tools, interface and functions evolve in new versions.
h. **THIRD COMPLETION:**
i. Demonstrate updated skills reflecting current industry standards as software tools, interface and functions evolve in new versions.

### IV. METHODS OF ASSESSMENT (TYPICAL)

#### A. **FORMATIVE ASSESSMENT**

1. Critiques of computer-generated images as hard copy and/or on disk.
2. Instructor's review of student's on-going work.
3. Review of student's participation in discussion and critiques, laboratory performance.
4. Periodic written quizzes throughout the semester.

#### B. **SUMMATIVE ASSESSMENT**

1. Practical Final Project
2. Written Final Exam