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

**CGR-222  Image Assembly and Platemaking**  
Planning for lithograph plating; handling and repair of lithograph negatives; special negative operations--scribing, opaquing, retouching, flat layout and imposition; single and multiple negative masking. Imposition and step and repeat at the RIP. Addition of marks and color bars in the RIP software. Trapping in the RIP software. Field trips might be required. Course is applicable to the associate degree.

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:**

   A. Imposition  
   1. Negatives and Positives  
      a. materials  
      b. differences  
   2. Masking  
      a. materials  
      b. tools  
      c. procedures  
   3. Press Requirements  
      a. setback  
      b. gripper margins  
      c. press sheet size  
      d. trim sheet sizes  
   4. Multiple Color Image Stripping  
      a. reference marks  
      b. procedures  
   5. Proofing Systems  
      a. single color  
      b. multiple color  
      c. digital proofing  
   6. Step and Repeat Procedure  
   B. Image Carriers  
   1. Lithographic Theory and Flexographic Theory  
   2. Plate Connector Types  
   3. Plate Base Materials  
   4. Plate Coatings  
   5. Plate Exposure Techniques  
   6. Plate Processing  
   C. Image assembly procedures from page layout software using R.I.P. software  
   1. Register Marks  
   2. Trapping  
   3. Pagination  
   4. Imposition  
   5. Output of Film  
   D. Flexographic image assembly procedures using R.I.P. software  
   E. Register Marks  
   1. Trapping
2. **Pagination**  
3. **Imposition**  
4. **Output of Film**

2. **Required Lab Content:**

   A. Flats and Assembly of film  
      1. Master flats  
      2. film evaluation and correction  
      3. Step back margins  
      4. Assembly of film  

   B. Masking procedures  
      1. Multi color from one negative  
      2. color separation  

   C. Step and repeat  
      1. Manually  
      2. At the Rip  

   D. Calibration  
      1. Plate exposure  
      2. Proofing materials  
      3. Rip calibration  

   E. Rip Software  
      1. Flexographic  
      2. Trapping  
      3. Output to film  
      4. Imposition  
      5. Digital proofing  
      6. Direct to plate  

   F. Plate making  
      1. Direct to Plate  
      2. Lithographic Plates from film or flats or masks  
      3. Flexographic Plates from film or flats or masks  

   G. Trouble shooting software problems  
      1. InDesign  
      2. Photoshop  
      3. Illustrator  
      4. Other  
         a. word  
         b. publisher  
         c. all others
B. ENROLLMENT RESTRICTIONS

C. HOURS AND UNITS

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D. METHODS OF INSTRUCTION (TYPICAL)
Instructors of the course might conduct the course using the following method:

1. Lecture.
2. Discussion of class lecture and demonstrations.
3. Lab demonstrations.
4. Computer-assisted activities.

E. ASSIGNMENTS (TYPICAL)

1. EVIDENCE OF APPROPRIATE WORKLOAD FOR COURSE UNITS
   Time spent on coursework in addition to hours of instruction (lecture hours)
   - Weekly reading of materials and answering chapter questions.
   - Weekly labs to complete as listed in the lab content.
   - Weekly lecture to correspond with the lab of the week.
   - Will be lecture lab each week with the approximate percentage listed in the units section.

2. EVIDENCE OF CRITICAL THINKING
   Assignments require the appropriate level of critical thinking
   1. Create master flats for 8 1/2 x 11 , number 10 envelope, and 14 x 20 press sizes.
   2. Impress multiple pages for an 8 page signature in the Rip software and output as directed.
   3. Assemble multiple color negatives in perfect registration using our pin registration system.
   4. Test question: List the step by step procedure to make a Flexographic plate.
   5. Test question: Explain why we perform the test exposures on Litho Plates, Flexo Plates, Proofing materials, and why.
   6. Test question: How do you know what step back margin and gripper margin to use when assembling your film?

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:

   Prepare plates for press using direct to plate Ripping process, Ripping to film and assembly of negatives for exposing plates.

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. Distinguish between film positives and negatives.
   b. Dimension and layout press sheet formats to meet specified press requirements.
   c. Define the press differences as they relate to the following: setback, gripper, and press sheet sizes.
   d. Construct the following: multiple page mockups, label page numbers, press sheet heads, and gripper edges.
   e. Proof stripping flats using different color proofing systems based on perceived press requirements.
   f. Assemble multiple image flats to match a press sheet mockup. Assemble multiple images at the RIP.
   g. Outline the step-by-step procedure (manual and electronic) to conduct a step and repeat burn on an image carrier.
   h. Evaluate image carrier exposures using the appropriate control techniques.
   i. Expose and process different image carriers, using the corresponding solutions.
   j. Match the Die type to the specified press cylinder requirement.
   k. Use Rip and page layout software, Illustrator, PhotoShop, and trapping software to perform/create the following: spreads and chokes, print separations, and print necessary register marks with proper pagination.
   l. Prepare flexographic imposition software for film output using images from the following software: InDesign, Illustrator, and Ripping software.
   m. Prepare flexographic plates and mount for printing on cylinders.
   n. Demonstrate the ability to trouble shoot file problems at the R.I.P. (raster image processor).

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

   a. Evaluate film for image assembly. Opaque, and add additional info like lines if necessary.
   b. Create master flats.
   c. Assemble single, and multi color flats for plate exposure.
d. Use masks to create color separations after film has been output.

e. Expose and process Lithographic plates, and Flexographic plates.

f. Perform Trapping and Imposition mechanically and with the Rip software.

g. Output direct to plate and to film.

h. Evaluate files at the Rip for accuracy, and quality.

i. Calibration exposures with all plate and proofing materials.

j. Use the flexographic software to impose and output film for plating.

k. Trouble shoot files and output acceptable film or direct to plate images or documents.

IV. METHODS OF ASSESSMENT (TYPICAL)

A. FORMATIVE ASSESSMENT

1. Demonstrated skill performance

2. Descriptive lab analysis

3. Document mockup creation

4. Group task analysis/troubleshooting

5. Problem-solving techniques

6. Small group class presentations

7. Task performance ratings

8. Written examinations to include essays

9. Written systems diagnosis/recommendations

B. SUMMATIVE ASSESSMENT

1. Final

2. Lab Final

3. Mid Term