

PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

X Transfer Course X A.A. Degree applicable course
(check all that apply)

COURSE NUMBER AND TITLE: GC 185 Advanced Offset Press

UNIT VALUE: 3.0 units

MINIMUM NUMBER OF SEMESTER HOURS: 96 hours

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills

ENTRANCE REQUIREMENTS

PREREQUISITE: None

COREQUISITE: None

RECOMMENDED PREPARATION: GC 182 Digital Prepress and Press II

SCOPE OF COURSE:

Advanced work on larger format offset equipment focusing on sheet control, register, ink and water control, and digital imposition.

SPECIFIC COURSE OBJECTIVES:

The successful student will be able to:

1. calculate and setup press feed system.
2. calculate and setup press delivery system.
3. compute plate height and cylinder needs.
4. process photo polymer plates to production standards.
5. formulate ink for substrate application.
6. adjust PH for ink and water balance.
7. manipulate press to insure image fitness and registration.
8. analyze, problem solve press operation.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Safety and Hazardous Waste Control

- II. Feeder Setup
 - A. Vacuum
 - B. Air
 - C. Height
 - D. Caliper setting
 - E. Double sheet detector
- III. Register Board
 - A. Pull out wheel tension
 - B. Brush tension
 - C. Smoothing brushes
 - D. Head stops
- IV. Delivery Setup
 - A. Side and back joggers
 - B. Star wheel placement
 - C. Anti-tracking devices
- V. Fountain Setup
 - A. Fountain solution Ph readings
 - B. Conductivity readings
 - C. Additives
 - D. Types of dampening systems
- VI. Inking Systems
 - A. Ink mixing
 - B. Ink setup
 - C. Roller settings
- VII. Impression Systems
 - A. Packing
 - B. Micrometer use
 - C. Bearer
 - D. Image length
- VIII. Ink and Water Control
 - A. Variables
 - B. Pressure checks
 - C. Plotting fountain combinations
- IX. Progressive Maintenance
 - A. Lubrication
 - B. Fault finding
- X. Sheet Control
 - A. Speed control
 - B. Start up standards
 - C. Inspection copies
 - D. Raw material control
- XI. Paper Problems
 - A. Moisture content
 - B. Coated stock
 - C. Spray powder
 - D. Picking
- XII. Press Room Standards
 - A. Minor defects
 - B. Major defects
 - C. Critical defects
 - D. Match to standard color

- E. Match to standard spot color
 - F. Page alignment cut off and fold
 - G. Register
- XIII. Wash Up Systems
- A. Light color change
 - B. 2-step wash up
 - C. Squeegee use
 - D. Water system wash up
 - E. General clean up

REQUIRED READING:

Solna Press Manufacturing. Press Manual Solna 125. New York, NY: Solna, 1987.
Ryobi Limited. Ryobi 512 Press Manual. Tokyo, Japan: Ryobi, 1993

SUGGESTED READING:

Quick Printing Magazine.
Printing Impressions Magazine.

REQUIRED WRITING:

1. Instruction sheets and job specifications, one page each. (Ten per semester)
2. Three page research paper on press technology.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

Business tours with class report. Notebook on all project proofs.
Students are required to read text, study lecture/lab notes, research and complete required press assignments.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

DISTANCE LEARNING:

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply:

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

- 50% Final presentation
- 20% Writing assignments
- 20% Lab assignments
- 10% Exams

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes No Number of times course may be taken for credit: 4

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

58161 (c)(2)(A)

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SIGNATURES ON FILE