

**UNIVERSITY OF
MISSOURI
BULLETIN**

COLUMBIA, MISSOURI

**OFFSET
PRINTING**

NON-CREDIT, NON COLLEGIATE COURSES

SCHOOL OF JOURNALISM

AUGUST 30, 1965

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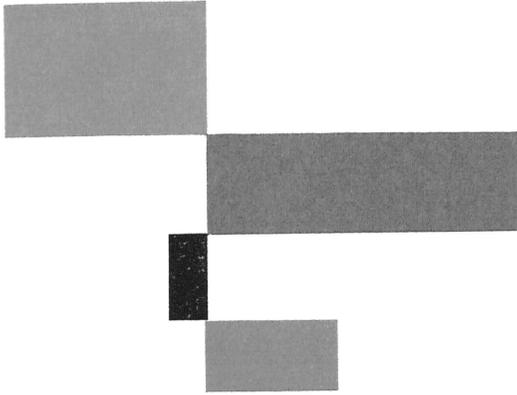
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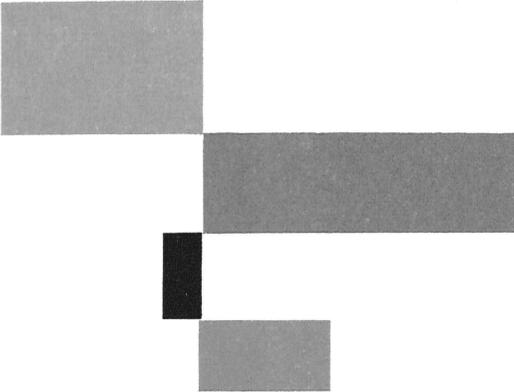
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OFFSET PRINTING



INTRODUCTION



THE UNIVERSITY OF MISSOURI School of Journalism Linotype Curriculum was approved by the Board of Curators in January 1943, with vocational, non-credit courses conducted under the administration of the School of Journalism. It began operations in July 1943.

The offset training program was added in January 1964 as development of this printing process in the field brought with it a demand for trained shop personnel. The program is designed to give this training to people who wish to enter quickly the small printing shop or weekly. It trains a person for a general knowledge of offset. Experience then creates the finished specialist.

There are no formal entrance requirements, although a high school education, good eyesight, and manual dexterity are recommended assets. The employment of women has been highly successful.

A certificate showing completion of the course may be obtained, and there is aid in job placement. Community papers are changing to offset at a rapid rate. There is a great need for help. Offset provides a profitable future for those who would take advantage of it.



FACILITIES

The school and training program are arranged insofar as possible to conform to actual small shop conditions.

Equipment consists of great variety of handset type and a Vandercook proof press for metal composition. Paper type, a Filmotype, and a pair of Friden Justowriters make up the cold type equipment. The camera is a new 320 Robertson, and the press training is done with a 1250-W Multilith. A light table, pasteup tables, typewriters and miscellaneous minor equipment round out the necessary materials for a complete training program.

Recent addition of a photo-chemical Morisawa with its tremendous type face capacity affords ample selection for all student needs.



CURRICULUM

An eighteen-week course is offered beginning in January/February and September, and a 12-week course is offered in June. Fee for the 18-week course is \$150; for the 12-week course, \$110.

Outline of the course is as follows:

- I. Composition
 - A. Operation of "cold type" Friden Justewriter for text or body matter
 - B. Operation of Filmotype machine for display and headline type
 - C. Handsetting and reproduction proofing of metal type
 - II. Light Table and Pasteup Operations
 - A. Making pasteups, or camera copy, of work ranging from simple commercial job work, through small publication work and ads, to newspaper page pasteup
 - B. Simple color breaks
 - C. Camera negative correction
 - D. Masking and imposing of negatives in preparation for plates making. Methods of handling combination line and halftone negative work.
 - III. Camera Operation
 - A. Basic principles of process camera and its operation
 - B. Shooting and developing line negative
 - C. Calibration of exposure time and principle of flashing
 - D. Shooting and developing of the half tone and calibration of exposure time for the half tone screen.
 - IV. Platemaking
 - A. Discussion of paper, foil, and metal plates.
 - B. Printing of plates from single and combination negatives
 - C. Developing the plate
 - V. Press Operation
 - A. Principle of offset printing
 - B. Imposition in printing
 - C. Operation and care of the small offset press
 - VI. Lectures
 - A. General background of printing
 - B. Printer's arithmetic and copy marks
 - C. Estimating production
 - D. Copyfitting
 - E. Paper calculation
 - F. Classifications of type faces
 - G. Proportions and styles of layout
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COMPOSITION





IN OFFSET PRINTING, composition methods, or the setting of the lettering, is about only limited by desire and the tools at hand. The tool may be a lead pencil or the tremendously flexible photo-chemical machines available today.

The copy to be printed may be typed, hand-lettered, clipped and pasted, or set in film or by conventional hot metal composing machines.

Here at the school the student will learn to handle many forms of composition. He must learn the art of reproduction proofing of both handset type and linecasting production. He can try his hand at lettering, if the talent is there.

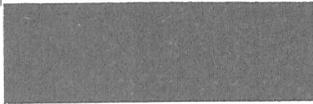
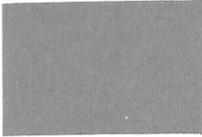
The popular typewriter keyboarded Friden Justo-writers are at his disposal. Conventional typewriters provides a cheap, quick copy source. Mastery of the school's Filmo-type provides an excellent supply of large display type faces, and the use of the flexible Morisawa photo-head-letter machine will yield a seemingly unlimited variation of type sizes and faces.

Letters are where you find them in offset and as the student progresses he finds a storehouse at his fingertips.



STRIPPING





ALTHOUGH CLEAN AND PLEASANT work at the light table and at pasteup requires high skill and technical knowhow, if top results are to be obtained. It is at these points that the "stripper" makes the lettering and pictures into a professional appearing arrangement.

All the construction details of the finished job must be known. A knowledge of spacings, the margins, the placement of the pictures, trim of the finished job, and just how it will be run through the press, folded and bound is necessary. The high skilled craftsmen, or women, in this area are the true "printers" of offset. All required knowledge of printing elements and their usages is the same.

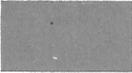
The student is taken through basic use of equipment into the areas of commercial job work, ads, and newspaper pages. He must know how to handle film and masking sheets. Negative correction, masking and imposing, and methods of dealing with line work and halftones are, of course, necessary knowledge.

The person with an eye for detail and a steady hand finds an enjoyable career in this area of offset.



CAMERA





CAMERA WORK FASCINATES many people. The school's 16'' x 20'', 320 Robertson can do the job, if the operator has the know-how. Camera basics--planning scaling, and the shooting and developing of line and half tone negatives are part of the course.

A consideration of various camera designs, types of films, and the world of screens used to produce pictures and effects is covered in detail. Principles of how the lens sees the copy and calibration of the camera form an important part of the student's knowledge of cameras.

In offset, if it can be seen, it can generally be printed. Mastery of the camera's big eye is the secret behind this.

Sometimes, however, the camera is just too good--picking up the poor features of the copy with the good. In such case the careful student must learn to get only the best of the copy, and correct as he photographs.

When basics are mastered, the student also has access to the vertical camera at the Columbia Missourian, thus working with both popular types.



PLATEMAKING





THERE IS NO HEAVY lead type in offset printing. A thin flat plate affords the only printing surface. The non-printing surface of this plate becomes wet on the press and repels the oily ink. The printing surface, through chemical treatment, will retain the ink.

These plates are made of many substances. Paper, foil laminated to card stock, zinc, and aluminum are common materials. Some plates may be drawn upon or typed upon directly. These direct image plates are ready to be printed immediately.

Other, more expensive plates must have an image from the negative burned upon them by lights, and then they are developed for printing in a few minutes by chemical means.

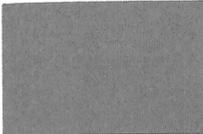
Students in the Offset Curriculum will learn the uses of these various plates and the methods of proper development.

Proper processing of these plates is one of the keys to good printing results. Thorough discussions as to why a plate prints and practice in processing them is a "must" for all offset students. Many a fine job done in the school utilizes student plates.



PRESS





● OFFSET PRESSES RANGE

in size and complexity from small office duplicators to huge, multi-color printing machines, and from single sheet feeding to running of many webs, or rolls of paper simultaneously.

It would be impossible for any school to teach the actual machinery of all the varieties of presses. Fortunately, however, the basic underlying principles are the same on all offset presses.

Here, at the school, these basic principles are taught students on small sheet fed presses.

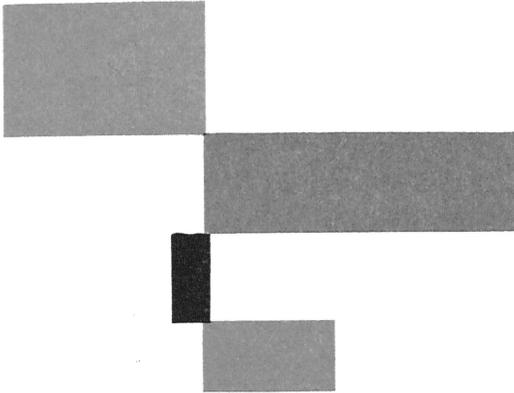
Water and ink control, register, and the obtaining of smooth paper flow through the press make students aware of the many fine niceties that produce good printing.

Here, also, the students see the true visual impact of the job they produce and realize that if it is to be good on the press, it must have been well planned and executed from the very beginning.

At this point many a student may say proudly, "Look, I did this printing job from beginning to end." The pride of creativity finds its fulfillment in the offset press.



IN SUMMING UP!



THE POPULARITY OF

offset printing is growing and seems destined to grow. It is basically simple and it works--from office memos to national magazines. Every job is new and in some ways different than the one before it. This is why so many people find offset printing interesting and challenging.

The pay is in line with skilled workers in other fields. So many shops and newspaper plants have installed this process that the demand for trained help far exceeds the supply.

The school will aid in placing good students and to date has had no problem.

Offset printing is safe and healthful. There is little to distinguish much of it from office work--except the higher pay. It is clean and light and women find a place in it as rapidly as men.

If you feel that the field of offset printing may be for you, why not investigate further. Come in and let us show you more.

For offset is, indeed, the printing field with a future. And it could be yours!

