

IT NUMBER	MODULE	SCOPE	EXAMINATION
PL: 181311	Post-Press Technologies and Product Design	4	5 PL: KL, 90 Min

## LEARNING OUTCOMES

The Post Press Technology course provides a profound overview over processes and workflows employed in the post press environment. This comprises the job preparation, paper processing, book production, block binding, case-making and finishing. After completion of the course students have obtained a detailed understanding of an automated / industrial production of brochures, books and packaging. They know the relations between technology, product quality, productivity and costs. Students are able to work their way into advanced topics in the field of finishing processes and to self-dependently work on projects.

The Learning outcome generically includes:

- reflect broad conceptual knowledge and adaptive vocational and generic skills
- reflect essential knowledge, skills or attitudes;
- focus on results of the learning experiences;
- reflect the desired end of the learning experience, not the means or the process;
- represent the minimum performances that must be achieved to successfully complete a project;
- Understand professional, ethical, legal, security and social issues and responsibilities;
- be able to communicate effectively with a range of audiences.

## CONTENTS

The subject of Post-Press Technologies comprises any technical process involved after printing a web or sheet. The lectures are divided into different sections starting out with an introduction into the field of binding, folding and finishing. This is followed by lectures outlining the specifications and applications of diverse production processes employed in modern post press technologies.

The lectures focus on specific methods of industrial production, logistics, workflows, product specifications and on different methods of book production.

- 1) Measurements
- 2) Theory and Terminology
- 3) Principles of Stack Cutting
- 4) Principles of Machine Folding
- 5) Multi-page Impositioning
- 6) Feeder and delivery devices
- 7) Specialty Work (Perforating and Cutting)
- 8) Folding in Web-Applications
- 9) Make up
- 10) Magazine and Paperback Production
- 11) Saddle Stitching
- 12) Loose Leaf Binding
- 13) Adhesive Binding / Perfect Binding: Adhesive, Machinery and Processes
- 14) Thread Sewing and Thread Stitching
- 15) Thread Sealing
- 16) Paper Finishing in Combination With Digital Printing Presses
- 17) Physical and Digital Workflows / Digitization and Automation
- 18) Types of Brochures
- 19) Case Making
- 20) Book Production
- 21) Finishing

## STRUCTURE

### Week 1

The first week is about the history of measurements and formats. It is an important section to understand why certain sizes are preferred and why certain formats prevail. You will learn about ISO standards, metric and imperial. The second part of this week's lecture deals with aesthetic proportions which rule our sense of beauty and balance.

### Week 2

Post Press success depends on good planning and attention to detail. When people hear about different binding jobs gone awry, behind-the-scenes processes like cutting often are to blame. You will learn about different methods of separation, the starting point of any post-press activity. Different cutting technologies, methods and styles, the application and the use are introduced.

### Week 3

Many printing projects featuring superb printing don't look good because of inaccurate folding, dull formats or too conventional folding styles. Folding makes a world of difference, especially if you coordinate your project early in the job preparation stage. In this section you learn about job planning for folding, folding principles, its limitations and choosing the right material.

### Week 4

Proper impositions can make the difference between winning or losing jobs or being delighted with the job or rather discontented. Most projects reveal standard impositions for books, brochures or marketing leaflets with common trim sizes. However, on standard equipment to make a job exciting there is a full array of different options available. This section is about different folding styles, methods and options. You learn about different imposition systems and machine configurations.

### Week 5

To many graphic arts professionals specialty folding begins and ends with a bemused 'How did you do that?' However, such speculation does a disservice to skilled bindery professionals who accomplish extraordinary feats every day. Rest assured, there is a lot of behind-the-scenes work occurring on folding jobs and look downright ordinary. This part of the lecture deals with sheet feeders and deliveries, perforation and inline slitting, creasing and fold gluing on sheet fed presses and in web-applications.

### Week 6

The section make-up of books and booklets cannot be divorced from impositioning. The same factors that influence choice of impositioning will determine the complete production, the style and the costs of the product. This week we will concentrate of the many options available to make a job special. We will also concentrate on magazine and paperback production. Here you will learn about signatures, gathering, inseting and all about saddle stitching.

### Week 7

For most book projects, the appropriate binding style falls into one of four categories: mechanical binding, adhesive binding or case binding. Binding options narrow considerably for complex books that need a solution that combines several elements. Consider a project with these divergent requirements: lay flat capabilities, a printable spine, an elegant appearance, and sturdy construction that will withstand frequent, long-term use. Sometimes you wish to use very different content materials. It's a tall order where the wire-O-binding comes in. We will have a look at different loose-leaf binding styles such as wire-O-binding (as often referred to comb binding) and we start looking at different adhesives used for perfect binding.

### Week 8

Every perfect bound project should achieve four objectives. First, the book's appearance must be the right shape with all copy properly positioned. Second, the pages need to be bound in the right sequence. Third, the book has to be durable. And fourth, the project should run efficiently to be cost effective. This week you will concentrate of different technologies of spine treatment to achieve various products, you will look at the application of adhesives and at machine production.

### Week 9

For elegance and durability, there is no substitute to thread stitching. This time-tested impressive binding style can accommodate truly distinctive products. Since there are many steps in a typical case-bound job, attention to detail is important. This section is about different stitching styles for pamphlets and books, it's about production and machinery. The second part of this week's lecture comprises on demand book production. The term print on demand and binding on demand or variable data printing (VDP in short) have introduced new workflow systems, working routines and entirely new products. You will learn about different workflow philosophies and the digitalization of production processes.

### Week 10

The number of products that can benefit from mechanical and adhesive binding is enormous. Mechanically bound products lay perfectly flat and the format is appropriate for a diverse array of products. Adhesive bound products may be produced to lay flat on a table while providing a great durability. Versatility is particularly important for projects with design elements such as die cuts, foldout covers, different sized sheets and index tabs. This week you learn about different types of pamphlets such as Otabind, Repcover, Tubebind, Swiss Binding etc. This section is followed by a file embarking on case binding activities, and you will look at design elements such as colour edging, ribbon markers and technical necessities such as rounding, head-banding and backlining.

### Week 11

There are many ways to alter the appearance or functionality of case-bound books. An important consideration is the type of board you need. There is a large number of options you may consider and you find a great variety of extras that you can use to dress up your case-bound projects. This week we learn about different cover styles, machine specifications and inline book production.

### Week 12

Few printed pieces shout, 'look at me!' as powerfully as those with foil stamping. Foil irresistibly draws the eye and commands attention. Foil-stamped images add punch to promotions, packaging or festive brochures. Another possibility to catch attention is to incorporate embossing or debossing options in appropriate projects which provide the product with haptic and lure. A beautifully printed product can be exiting, but the impact of ink, and haptic simply isn't enough for some projects. This is where the alliance of high-quality printing and creative die cutting can work wonders. In your final session you hear about hot foil stamping, embossing, debossing and finally die cutting, you learn about technologies and applications.

### Week 13

The test exam is a tool to measure your level of knowledge and to adjust your learning accordingly. Please note: You will encounter different questions and tasks in your exam. This test exam is for orientation only.

### Week 14

Excursion and Q&A

### Week 15

Test exam