

# PRINTING TECHNOLOGY (PITPT)

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## Courses

### **PITPT-101 INTRODUCTION TO PRINTING TECHNOLOGY 3 Credits**

Introduces students to Graphic Arts/Printing Technology. Includes a short history of communication followed by a general overview of prepress and preparation basics, printing processes, digital imaging, finishing and binding, workflow, publishing, new media, typography, and design. Students will also look at the future of communications, new issues in the field, and current industry trends.

### **PITPT-102 INTRO/GRAPHIC COMMUNICATIONS 3 Credits**

Graphic Communications is the process of communicating visually using typography and images to present information. Graphic design practice embraces a range of cognitive skills, aesthetics, and crafts, including typography, visual arts, and page layout. Like other forms of design, graphic communications often refers to both the process (designing) by which the communication is created and the products (designs) which are generated. We will learn various techniques and processes on how to disseminate such information.

### **PITPT-111 INTRODUCTION TO PACKAGING 3 Credits**

This course will introduce students to the packaging industry with an emphasis on corrugated packaging. Content will explore various substrates used in packaging, common industry practices, and the production process from raw materials to structural design and printing. Students will get the opportunity to view production processes first-hand with field trips to regional packaging facilities. Content will be delivered via a combination of lecture, demonstration, and industry-provided web-based resources.

### **PITPT-115 DIGITAL IMAGE PREPARATION 3 Credits**

This course presents the concept of high end printing utilizing Adobe PageMaker. Printed materials need to be laid out for press production and finishing procedures-students will "work backwards" with the total printing production in mind. Students will understand crop marks, document size, press sheet size, among other basic needs in the print world. Pre-requisites: PITPT-101 and GNBPT-110 or permission of instructor.

### **PITPT-119 ADOBE INDESIGN 3 Credits**

Students will explore and use Adobe InDesign in a print production workflow with special attention to prepress activities. Whether switching from other page layout programs, or learning layout for the first time, this course will cover all the basics used in the real-world process of creating documents, working with text and objects, applying formatting and styles, placing images, managing color, and outputting files.

### **PITPT-129 ADOBE ILLUSTRATOR 3 Credits**

Adobe Illustrator is a sophisticated graphics program capable of creating complex and attractive illustrations with type effects, including logos, advertisements and other illustrations. Students will learn basic drawing, coloring, and editing. The student will then advance to transparency, type, advanced path tools, special effects and more.

### **PITPT-131 OFFSET PRESS I 7 Credits**

Introductory offset presswork and pressroom procedures, including feeding and delivery systems, press adjustments, chemistry, papers, and ink.

### **PITPT-133 FINISHING AND BINDING 3 Credits**

Theory and practice in basic bindery and finishing operations including cutting, folding, drilling, stitching, binding, scoring and perforating.

### **PITPT-134 GRAPHIC COMMUNICATIONS I 3 Credits**

This course will provide a hands on approach to the fundamentals of designing for print and digital production, from the early stage of conception and planning, to the technical stages of file and color management, with a focus on critical thinking and realistic application of projects. Structured around the graphic communications print and digital production flow, essential material will be taught for all aspects of the process, including coverage of computers, color management, layouts, file format optimization, designing for digital and print production, designing with accessibility in mind, ethical and legal issues, and much more. Pre-requisite: PITPT-129.

### **PITPT-135 GRAPHIC COMMUNICATIONS II 3 Credits**

This course will be a continuation of Graphic Communications I, and build more extensively upon prepress post-press and finishing/binding processes. The course will include theory and practice in basic bindery and finishing operations, including cutting, folding, drilling, stitching, binding, scoring, and perforating. Students will learn and gain knowledge of paper types related to their grain directions, cutting, folding and binding characteristics. This course will also build upon skills learned in other Graphic Communications courses, and students will be able to turn their designs into actual production from concept to delivery, using a hands on approach. Pre-Requisite: PITPT-134.

### **PITPT-139 ADOBE PHOTOSHOP 3 Credits**

Students will explore and use Adobe Photoshop for photo editing. Instruction includes an overview of the software, including simple functions such as managing documents and palettes, then moving on to cover more specific topics such as image adjustment and manipulation, tonal and color correction, brush settings, cloning, healing, and other advanced tools, layers, masks, type, blending modes, filters, layer effects, and much more.

### **PITPT-154 PRINT PRODUCTION TECHNIQUES 3 Credits**

This course will sharpen students' print production skills with definitive resources created specifically for design professionals who need to create files using the Adobe Creative Suite applications, including InDesign, Photoshop, Illustrator and Acrobat. Instruction will be an overview for hands-on techniques to prepare files, edit photos and graphics and prevent common problems without missing a deadline. Course instruction will also consist of a more in-depth study of the physical requirements of the printing process.

**PITPT-190 DIRECTED STUDY IN PRINTING 1-6 Credits**

**PITPT-191 WORKSHOP IN PRINTING TECHNOLOGY 1-6 Credits**

**PITPT-192 SPECIAL TOPICS IN PRINTING TECHNOLOGY 1-6 Credits**

**PITPT-194 INTERNSHIP IN PRINTING TECHNOLOGY 1-12 Credits**

**PITPT-194A INTERNSHIP IN PRINTING TECHNOLOGY I 1-6 Credits**

Internship in Printing Technology.

**PITPT-194B INTERNSHIP IN PRINTING TECHNOLOGY II 1-6 Credits**

Continuation of PITPT 194A as a 100-level internship in Printing Technology.

**PITPT-194C INTERNSHIP IN PRINTING TECHNOLOGY III 1-6 Credits**

Continuation of PITPT 194B as an intermediate 100-level internship in Printing Technology.

**PITPT-194D INTERNSHIP IN PRINTING TECHNOLOGY IV 1-6 Credits**

Continuation of PITPT 194C as an intermediate to advanced 100-level internship in Printing Technology.

**PITPT-201 ADVANCED DIGITAL IMAGE PREPARATION 4 Credits**

Advanced digital preparation methods, emphasizing system and file management, file compression and conversion, and network operating systems. This course teaches the function and usage of digital imagesetters and to identify and compare digital proofing systems. Students will demonstrate the ability to preflight and apply file repair procedures. Pre-requisite: PITPT-115 or permission of instructor.

**PITPT-202 ADOBE PHOTOSHOP 3 Credits**

This class is designed for students who need to learn the fundamentals of Adobe Photoshop. The class will begin with an overview of the software, including simple functions such as managing documents and palettes. More specific topics will then be covered, such as image adjustment and manipulation, tonal and color correction, brush settings, cloning, healing and other advanced tools along with layers, masks, type, blending modes, filters, and layer effects.

**PITPT-209 TYPOGRAPHY 3 Credits**

Typography is the cornerstone of graphic design, but many beginning (and even experienced) graphic designers still have difficulties selecting the right type for the job. Students will learn how to choose, size, color and integrate type into their designs. Student will need the following to successfully complete the course: computer with broadband Internet connection; Adobe Illustrator (or equivalent vector-based drawing program) or Adobe InDesign (or equivalent layout program); and digital camera (cell-phone is okay). Pre-requisite: PITPT 119 and PITPT 129 or be concurrently enrolled in PITPT 129 with instructor's permission.

**PITPT-211 GRAPHIC COMMUNICATIONS III 6 Credits**

This course will build upon skills learned in previous Graphic Communications courses to provide a hands on learning approach in a real world environment. Students will apply knowledge and skills learned in previous GC courses to produce printed projects and build a portfolio to present for future employment opportunities. The student will spend a specified amount of time in each of the following areas: 1) Digital Image Preparation, which includes concept development, design and layout, 2) Digital Image Assembly and Prepress, 3) Press Operations, and 4) Finishing and binding. Pre-requisite: PITPT-135.

**PITPT-219 PRINCIPLES OF ADVERTISING 3 Credits**

Introduces the student to an overview of the global advertising industry, providing the fundamentals for developing, creating and implementing advertising campaigns based on strategic marketing principles and planning. The ongoing development and evolution of brand advertising and integrated marketing communications strategies with tactical executions will be examined, including: public relations, word of mouth, guerilla, experiential, online, viral and blog marketing.

**PITPT-220 ADOBE PREMIER 3 Credits**

Get started with Adobe Premiere Pro. This beginning-level course takes you through the basic ins and outs of Premiere Pro CC. Using a project-based approach, you will learn editing by blending technical and aesthetic instruction. Tour the interface, and then go through the entire post-production process-including ingest, organization, editing, refining, audio editing, basic effects, color correction, titling, output, and more.

**PITPT-221 PRINTING MANAGEMENT 3 Credits**

Application of knowledge and skills learned in previous courses to manage all printshop functions; computer estimating program based on cost centers is assembled and tested.

**PITPT-228 TECHNICAL LAYOUT AND IMPOSITION 3 Credits**

The importance of imposition and trapping will be emphasized in this course that is intended to be used as a bridge between the digital techniques used for imposition today and the traditional photomechanical approach used for most of the 20th century. The course material will lead students through the vocabulary, tools, and processes of image assembly, presenting the details of this vanishing profession while illuminating the ways in which these historic techniques connect to the computer-based workflow of today. Students will learn imposition and trapping standards, both conventional and digital, and know that they are dictated by press and bindery. Included will be an introduction to current digital imposition and digital trapping software.

**PITPT-229 PRINCIPLES OF DESIGN I 3 Credits**

This course will introduce students to the basic principles of design. The focus will be on hierarchy and the organization of text and images. Students will create solutions to various design problems by completing a series of projects throughout the semester. There will be a combination of lectures and hands-on activities.

**PITPT-230 PRINCIPLES OF DESIGN II 3 Credits**

Students will continue exploring the principles of design. The knowledge and confidence gained in Principles of Design I will allow students to take on more sophisticated projects. Pre-requisite: PITPT-229.

**PITPT-245 BUSINESS SIDE OF CREATIVITY 3 Credits**

Every year the market for creative services expands, but the competition is increasing even faster. Today, success hinges not on talent alone, but on a thorough understanding of the business side of creativity. This course will give students a comprehensive look at what it takes to run a small graphic design or communications business. There will be a particular focus on practical applications such as contracts, pricing, and tax issues.

**PITPT-254 PHOTOSHOP PHOTOGRAPHY 3 Credits**

Students will explore and use Adobe Photoshop to enhance digital photography. This class follows a photographer's digital workflow, starting with essential color management decisions and organizing images with Adobe Bridge. Students will then move on to processing Camera RAW files, enhancing tone and color as well as correcting imperfections. Students will learn how to prepare the images for output and client reviews. Required Materials: CAMERA-use of a 5 megapixel or higher resolution digital SLR capable of shooting Camera RAW is required. Camera must be capable of fully manual exposure and focus. No point-and-shoots or cell phone cameras. Camera use is not provided by class/instructor. SOFTWARE: Use of Photoshop CS4 or higher is required. Pre-requisite: PITPT 139 or permission of instructor.

**PITPT-281 PACKAGING STRUCTURAL DESIGN 3 Credits**

A key position in the Packaging field is the Structural Designer. These are the people responsible for creating the packaging structure to appropriately fit, protect, and ship certain products, as well as recommending the appropriate materials. Students will learn to use CAD software specific to the Packaging industry (Arden Impact) to create many common packaging styles, as well as 3D virtual mock-ups. Custom containers will also be created to meet the specific needs of a given product. Students will create working prototypes of their designs out of corrugated board, folding carton, or paperboard using the Kongsberg sample table. Pre-requisites: PITPT-129.

**PITPT-285 POINT OF PURCHASE DISPLAYS 3 Credits**

This course explores the structures commonly used in creating POP and promotional displays. Students will create original display designs using packaging CAD software and create the artwork to be printed on those displays using Adobe Illustrator. Students will produce these displays using a flatbed or wide format printer in combination with a Kongsberg sample table for cutting and creating the structure prior to final assembly. Pre-requisites: PITPT 129 Exploring Adobe Illustrator, MTHPT 130 Finite Mathematics OR MTHPT 137 Math for Technology, PITPT 281/381 Packaging Structural Design, PITPT289/389 Packaging Graphics.

**PITPT-288 PACKAGING OPTIMIZATION 3 Credits**

Students will learn to use palletizing software to prepare a shipping plan for packages, and conversely, packages to meet the needs of a particular shipping plan. Students will learn to optimize use of pallet space and utilize package strength to ensure stacking stability and to most efficiently and safely ship packaged products. Packaging safety, shipping rules and regulations, and materials testing will also be covered. Pre-requisites: MTHPT 130 Finite Mathematics OR MTHPT 137 Math for Technology, PITPT 281/381 Packaging Structural Design.

**PITPT-289 PACKAGING GRAPHICS 3 Credits**

This course covers the other side of packaging design. Once the physical packaging style/structure and material are decided upon, graphics need to be created to inform about or help sell the contents inside. Students will create artwork to be printed on or applied to standard and custom containers, including corrugated and paperboard boxes and glass bottles. Students will learn to consider multiple factors in creating effective package design, such as target audiences, potential printing limitations, and retail space display. Pre-requisites: PITPT-129.

**PITPT-290 DIRECTED STUDY IN PRINTING 1-6 Credits****PITPT-291 WORKSHOP IN PRINTING TECHNOLOGY 1-6 Credits****PITPT-292 SPECIAL TOPICS IN PRINTING 1-6 Credits****PITPT-294 INTERNSHIP IN PRINTING TECHNOLOGY 1-12 Credits****PITPT-294A INTERNSHIP IN PRINTING TECHNOLOGY I 1-6 Credits**

Internship in Printing Technology.

**PITPT-294B INTERNSHIP IN PRINTING TECHNOLOGY II 1-6 Credits**

Continuation of PITPT 294A as a 200-level internship in Printing Technology.

**PITPT-294C INTERNSHIP IN PRINTING TECHNOLOGY III 1-6 Credits**

Continuation of PITPT 294B as an intermediate 200-level internship in Printing Technology.

**PITPT-294D INTERNSHIP IN PRINTING TECHNOLOGY IV 1-6 Credits**

Continuation of PITPT 294C as an intermediate to advanced 200-level internship in Printing Technology.

**PITPT-390 DIRECTED STUDY IN PRINTING 1-6 Credits****PITPT-391 WORKSHOP IN PRINTING TECHNOLOGY 1-6 Credits****PITPT-392 SPECIAL TOPICS IN PRINTING 1-6 Credits****PITPT-394 INTERNSHIP IN PRINTING TECHNOLOGY 1-12 Credits****PITPT-394A INTERNSHIP IN PRINTING TECHNOLOGY I 1-6 Credits**

Internship in Printing Technology.

**PITPT-394B INTERNSHIP IN PRINTING TECHNOLOGY II 1-6 Credits**

Continuation of PITPT 394A as a 300-level internship in Printing Technology.

**PITPT-394C INTERNSHIP IN PRINTING TECHNOLOGY III 1-6 Credits**

Continuation of PITPT 394B as an intermediate 300-level internship in Printing Technology.

**PITPT-394D INTERNSHIP IN PRINTING TECHNOLOGY IV 1-6 Credits**

Continuation of PITPT 394C as an intermediate to advanced 300-level internship in Printing Technology.

**PITPT-490 DIRECTED STUDY IN PRINTING 1-6 Credits**

**PITPT-491 WORKSHOP IN PRINTING TECHNOLOGY 1-6 Credits**

**PITPT-492 SPECIAL TOPICS IN PRINTING 1-6 Credits**

**PITPT-494 INTERNSHIP IN PRINTING TECHNOLOGY 1-12 Credits**

**PITPT-494A INTERNSHIP IN PRINTING TECHNOLOGY I 1-6 Credits**

Internship in Printing Technology.

**PITPT-494B INTERNSHIP IN PRINTING TECHNOLOGY II 1-6 Credits**

Continuation of PITPT 494A as a 400-level internship in Printing Technology.

**PITPT-494C INTERNSHIP IN PRINTING TECHNOLOGY III 1-6 Credits**

Continuation of PITPT 494B as an intermediate 400-level internship in Printing Technology.

**PITPT-494D INTERNSHIP IN PRINTING TECHNOLOGY IV 1-6 Credits**

Continuation of PITPT 494C as an intermediate to advanced 400-level internship in Printing Technology.