

GRAPHIC ARTS TECHNOLOGY (GRA)

GRA 101 - Introduction to Graphic Arts Technology (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Provides students an overview of past, present and future graphic arts processes including graphic applications for design/layout, imaging, photography, prepress, print and finishing. Direction is provided on occupations in the Graphic Arts industry and the use of digital applications related to producing print materials. Provides a hands-on understanding of desktop publishing software through lab and lecture.

Typically offered: Fall, Spring, Summer

GRA 102 - Graphic Arts Desktop Publishing (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Presents a clear understanding of graphic desktop software and their many functions in the printing industry. Provides hands-on training using the most current desktop publishing software. Focuses on project work, page layouts and output functions. Prerequisite: Prior or concurrent enrollment in GRA 101.

Typically offered: Fall, Spring, Summer

GRA 103 - Digital Imaging I (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Covers fundamentals of professional image-editing software (Adobe Photoshop). Emphasizes skills to manipulate photos using current software tools and special effects filters. Explores program tools, color correction, channels, layers and masks. Strong computer skills are required for success in this course.

Typically offered: Fall, Spring, Summer

GRA 105 - Color Management (3 Credits)

1 lecture, 4 lab, 5 total contact hours

Examines the fundamentals of real-world color theory and management, throughout the entire graphic arts process. Students will explore all color management techniques of input and output devices as well as tools and concepts for successful color control. Focuses on internal workings and technology in color management systems, building a closed-loop workflow. Covers color fidelity, models, and the understanding on how devices interpret and deliver. Prerequisite: GRA 101 or GRA 103 with a grade of C or better.

Typically offered: Fall, Spring

GRA 111 - Print Media Production (3 Credits)

1 lecture, 4 lab, 5 total contact hours

Covers fundamentals of offset printing as well as new technologies in the digital print arena. Provides knowledge of press maintenance and safety, feeder systems, registration requirements, ink systems and color management tools and techniques in the print industry. Prior or concurrent enrollment in GRA 101.

Typically offered: Fall, Spring

GRA 112 - Digital Illustration I (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Presents vector graphics software and its applications to the graphic arts industry. Explores tools and functions within the current software. Focuses on creating illustrations, working with type, color, and all tools needed to create multi-colored illustration and separation. Emphasizes techniques to create illustration files for use in digital print production. Strong computer skills are required for success in this course.

Typically offered: Fall, Spring, Summer

GRA 113 - Digital Imaging II (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Covers advanced functions of digital image-editing software. Emphasizes advanced software functionality, color correction and color management needs as well as commercial imaging practices in a prepress environment. Focuses on different types of image capture and file manipulation. Prerequisite: GRA 103 with a grade of C or better.

Typically offered: Fall, Spring

GRA 120 - Graphic Design I (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Focuses on beginning fundamentals of graphic design utilizing all design principles and involves an overview of design and layout rendering techniques. Focuses on typography, images and graphics, utilizing design processes (including research and sketching), and current graphic software for print. Projects are critiqued for aesthetics and production for print. Prerequisite: GRA 102 with a grade of C or better.

Typically offered: Fall, Spring

GRA 130 - Introduction to Photography (2 Credits)

2 lecture, 0 lab, 2 total contact hours

Explores beginning fundamentals of photography, its history, and the development of photography in both commercial and creative usage. Presents a past and present use of photography focusing on techniques and applications in a conventional camera-based environment emphasizing the digital photographic arena.

Typically offered: Fall, Spring, Summer

GRA 131 - Digital Photography I (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Explores the techniques and applications of digital image capture, manipulating images in Photoshop and outputting digital images. Focuses on the technical aspect of digital photography, lighting needs, application use and color management basics. Project based instruction utilizing basic photographic concepts, commercially and creatively. A DSLR camera is required for this course. Prerequisite: GRA 130 with a grade of C or better.

Typically offered: Fall, Spring

GRA 145 - Wordpress and Mobile Technologies (3 Credits)

2 lecture, 2 lab, 4 total contact hours

Introduces the student to WordPress fundamentals to create basic web pages. Hands-on computer activity includes WordPress templates, dashboard and widget usage; blogging/posts; adding links, videos, photo galleries; creating user accounts; and theme changes. Students will also learn to translate the WordPress full web site into a mobile website and will integrate with social media platforms. An introduction to UI (user interface) design will be explored for mobile applications. Prerequisite: GRA 101 or WEB 110 or WEB 150 with a grade of C or better, or consent of program coordinator.

Typically offered: Fall, Spring

GRA 211 - Project Management, Scheduling and Estimating (3 Credits)

3 lecture, 3 total contact hours

Provides essential information needed to estimate, schedule, and project manage a print job. Analyzes cost calculations of various functions within the graphic arts industry. Covers workflow, scheduling, and quantity estimation to produce a quality document. Explores CSR (Customer Service Representative) roles in graphic arts workflow. Prerequisite: GRA 101 with a grade of C or better.

Typically offered: Fall, Spring

GRA 213 - Packaging, Finishing and Distribution (3 Credits)*2 lecture, 2 lab, 4 total contact hours*

Provides instruction on manufacturing processes and techniques for various types of print graphics with an emphasis on 3D packaging. Studies production practices, material usage, flexography process, finishing and distribution processes and environmental/sustainability trends. Covers the interaction between products and the many roles that packaging plays in the supply chain. Presents methods of postal requirements, barcoding, how products get to market, costs, manufacturing needs and delivery of said product. Prerequisite: GRA 111 or GRA 222 with a grade of C or better, or consent of program coordinator.

Typically offered: Fall, Spring**GRA 214 - Digital Illustration II (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Explores advanced vector illustration graphic software in the graphic arts industry. Focuses on prepress techniques and print production uses. Includes an understanding of four-color print production requirements and advanced menus/tools. Prerequisite: GRA 112 with a grade of C or better.

Typically offered: Spring**GRA 220 - Graphic Design II (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Teaches advanced graphic design that is project- and process-focused to refine creative and technical skills. Projects will follow the design process from initial research and sketches to refined computer layouts and final production-ready art files. Assignments will utilize graphic design principles and current graphic software. Projects are critiqued for design process, aesthetics, presentation and file production accuracy. Projects may become part of a professional portfolio. Prerequisite: GRA 120 with a grade of C or better.

Typically offered: Fall, Spring**GRA 221 - Graphic Portfolio Design (2 Credits)***1 lecture, 2 lab, 3 total contact hours*

Covers preparation of portfolio book and digital portfolio presentation. Focus is on the understanding of the professional portfolio needs and its presentation in the graphic design job market. Existing projects are critiqued for aesthetics, arrangement and presentation. Graphic resume preparation. Prerequisite: GRA 120 with a grade of C or better.

Typically offered: Fall, Spring**GRA 222 - Package Design (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Provides instruction on marketing and branding strategies and the design of packaging products. Studies packaging structural implications and substrates as well as design and production for 3D packaging such as folding cartons, flexible bags, labels and shrink sleeves. Covers barcoding and postal preparation and standards; works with supplied CAD structures. Emphasizes the creative visual design of 3D packaging and prototype creation; focuses on the file production through manufacturing requirements of the packaging industry. Prerequisite: GRA 112 with a grade of C or better.

Typically offered: Fall, Spring**GRA 229 - Page Layout (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Explores advanced multi-page layout techniques in InDesign software. Projects focus on creating documents that follow industry standards and best practice for print graphics. Emphasis is placed on projects for print and preflighting techniques. Prerequisite: GRA 102 with a grade of C or better.

Typically offered: Fall, Spring**GRA 230 - Prepress and Digital Front End (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Covers prepress procedures, including preflight and digital front end. Includes standard operating procedures for trapping, barcodes, postal regulations, screening, color separations, step and repeat, RIP, color management, prepress automation, and working with dielines. Real world file preparation, printing methods, ink and color space utilized. Will assess proofing and plating, process control, and quality control. Includes understanding of PDF requirements for file exchange. Prerequisite: Prior or concurrent enrollment in GRA 102.

Typically offered: Fall, Spring**GRA 231 - Personalized Marketing (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Covers selected topics utilizing digital print technologies. Studies variable data applications, data management and cross media web-to-print solutions for the graphic arts industry. Includes aspects of personalized and customized data and marketing through text and images for print, web, email and phone delivery. Covers application training and utilization through output and trends, VDP procedures and languages, postal specifications and bindery needs. Prerequisite: Prior or concurrent enrollment in GRA 102.

Typically offered: Fall, Spring**GRA 232 - Digital Photography II (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

Explores advanced techniques and applications of digital image capture, concentrating on application uses and output. Focuses on different types of digital photography in the graphic arts arena, from product shots, food, fashion and location techniques. Investigates different equipment and color management in a commercial studio environment. A DSLR camera is required for this course. Prerequisite: GRA 131 with a grade of C or better.

Typically offered: Spring**GRA 233 - Integrated Digital Printing (3 Credits)***1 lecture, 4 lab, 5 total contact hours*

This course will explore the digital print market in commercial environments. Wide format and digital presses will be calibrated and analyzed for quality output. Automation and prepress techniques will be reviewed prior to printing to assure quality input. Emphasizes understanding and incorporating emerging technologies into the production workflow. Students work from design and conception through all aspects of preparation, production, and finishing. Recommended to take Prepress and Digital Front End prior to enrolling in this course. Prerequisite: Prior or concurrent enrollment in GRA 101.

Typically offered: Fall, Spring**GRA 235 - Digital Photography Post-Production (3 Credits)***2 lecture, 2 lab, 4 total contact hours*

To learn advanced digital editing techniques in post-production using client provided images and Photoshop software. Students will learn workflow efficiency to achieve client needs. Provides the student with experience to work with clients in a commercial setting. Prerequisite: Prior or concurrent enrollment in GRA 232.

Typically offered: Fall, Spring

GRA 299 - Digital Photography Capstone (3 Credits)

0 lecture, 15 lab, 15 total contact hours

Provides the digital photography student with a broad educational experience through observation and participation in an industry environment. Students gain hands-on experience by being assigned to a commercial photography company. Students will be supervised by an industry professional and must report on every work session. Prerequisite: Prior or concurrent enrollment in GRA 232 and consent of coordinator.

Typically offered: Fall, Spring