8470
Advanced Design (12A)

40S/40E/40M

A Print Media Course

Course Description

This course is intended for students entering the completion phase of their print media studies.

Curriculum content provides for an overview of the design process and application of that process in print media. Topics include the following:

- advanced elements and principles of design
- advanced colour theory
- advanced image manipulation
- advanced typography
- advanced page layout

Students in the course will independently apply essential skills related to safety and employability. They will continue to develop their knowledge, skills, and attitudes in the areas of career development, sustainability, and new and emerging technologies in design specifically related to print media.

Cross-curricular learning outcomes, which include essential print media math, the science of print media, and the interpretation of print media documents, are to be integrated into the authentic activities of the course.

The learning outcomes are organized by Technology Fundamentals (F), Technology Skills (S), and Professional Practice (P) strands. For instructional purposes, the sequence of outcomes and the outcomes included in each unit of study can vary based on the projects within the course.

Goal 1: Demonstrate ability to apply the creative process to develop a professional **design** for print.

GLO 1.1: Identify the **design problem**.

SLO 12A.F.1.1.1   Recommend an option for a design solution based on the end use of the product.

SLO 12A.F.1.1.2   Research cost factors (e.g., materials, labour, and quantity) for the design and print process.

SLO 12A.F.1.1.3   Describe the impact demographics, audience, and client preferences have on the design solution.

SLO 12A.S.1.1.1   Estimate design and print job costs.

SLO 12A.S.1.1.2   Communicate the design process and justify the design solution.

GLO 1.2: Research the **factors that influence design**.

SLO 12A.F.1.2.1	Consider the processes that influence design (e.g., purpose, printing specifications, audience, printing method, delivery date, style, aesthetics, theme, technology, workforce, client's personality, quantity, and post-press considerations).
SLO 12A.S.1.2.1	Incorporate research into design solution.
SLO 12A.S.1.2.2	Select processes required for design solution based on design factors.

GLO 1.3: Recognize and apply the **elements and principles of design**.

SLO 12A.F.1.3.1	Consider how elements and principles of design communicate messages effectively.
SLO 12A.F.1.3.2	Relate the significance of typography to the effectiveness of the overall design.
SLO 12A.F.1.3.3	Evaluate the effectiveness of the use of typographical conventions in order to achieve design solutions.
SLO 12A.S.1.3.1	Creatively apply the principles and elements of design in order to achieve an effective design solution.
SLO 12A.S.1.3.2	Evaluate design solutions based on the principles of design.
SLO 12A.S.1.3.3	Self- and peer-assess design solutions using constructive advice.
SLO 12A.S.1.3.4	Creatively apply the rules of typography in order to achieve design solutions.

GLO 1.4: **Conceptualize** the design solution.

SLO 12A.F.1.4.1	Select brainstorming techniques.
SLO 12A.F.1.4.2	Synthesize existing models to creatively influence a design option.
SLO 12A.F.1.4.3	Evaluate typographical options and choose ones based on the desired solution.
SLO 12A.F.1.4.4	Evaluate and critique printed material based on the principles of design.
SLO 12A.F.1.4.5	Evaluate design solutions for printability.
SLO 12A.S.1.4.1	Collaborate to brainstorm design ideas.
SLO 12A.S.1.4.2	Draw thumbnails, rough layouts, and comprehensives using appropriate symbols (e.g., type, graphic elements, and typography).

GLO 1.5: Communicate the design solution.

SLO 12A.F.1.5.1   Describe the process of communicating and collaborating with stakeholders (e.g., client, art director, designer, and production manager) involved, leading to a design solution.

SLO 12A.S.1.5.1   Relate the initial request from the client to the phases of creative development and the evolution of the design solution.

SLO 12A.S.1.5.2   Verify proof to design specifications.

SLO 12A.S.1.5.3   Present a design solution to an audience.

GLO 1.6: Describe and apply **appropriate technology** to achieve the design solution.

SLO 12A.F.1.6.1   Differentiate between vector and raster images.

SLO 12A.F.1.6.2   Analyze appropriate resolution based on output.

SLO 12A.F.1.6.3   Differentiate between colour management and colour modes.

SLO 12A.S.1.6.1   Select software to achieve a design solution.

SLO 12A.S.1.6.2   Select image format based on output.

SLO 12A.S.1.6.3   Apply file management practices and commonly used file formats for design and print production.

SLO 12A.S.1.6.4   Create and manipulate raster and vector images for page layout.

SLO 12A.S.1.6.5   Apply advanced typographical techniques.

SLO 12A.S.1.6.6   Select procedures and techniques to acquire digital and continuous tone images based on source quality and output.

SLO 12A.S.1.6.7   Create and assemble three-dimensional print proof.

Goal 2: Describe and apply **graphic print production processes**.

GLO 2.1: Describe and apply appropriate **pre-press techniques**.

SLO 12A.F.2.1.1   Consider various print production methods (e.g., offset, flexography, screen, and digital) for a design solution.

SLO 12A.F.2.1.2   Demonstrate knowledge of layout and geometry (i.e., margins, bleeds, marks, page information, document size, page orientation, and page count, etc.).

SLO 12A.S.2.1.1   Incorporate print production techniques (e.g., distortion, trapping, dot gain) for a design solution.

SLO 12A.S.2.1.2   Apply the principles of layout and geometry.

SLO 12A.S.2.1.3   Apply pre-press techniques to design solution.

SLO 12A.S.2.1.4   Verify proof to production specifications.

GLO 2.2: Describe and apply commonly used **print production methods**.

SLO 12A.F.2.2.1   Design a variety of products for different printing methods.

SLO 12A.S.2.2.1   Apply printing production methods to create complex (e.g., business package, multicolour) projects.

GLO 2.3: Describe and apply **post-press methods**.

SLO 12A.F.2.3.1   Describe how post-press methods enhance and/or influence design.

SLO 12A.S.2.3.1   Select and incorporate post-press techniques (e.g., perforation line, dye lines, score lines, and margins) for design solutions.

SLO 12A.S.2.3.2   Verify the design accuracy and functionality specific to post-press techniques for a design solution (e.g., proof and build model).

Goal 3: Operate and maintain the **tools and equipment** used in the print production industry.

GLO 3.1: Operate computer **hardware and software**.

SLO 12A.F.3.1.1   Differentiate among print production software based on capability and efficiency.

SLO 12A.F.3.1.2   Differentiate among input/output hardware and their uses (e.g., printers, scanners, storage devices, and digitized tablets).

SLO 12A.S.3.1.1   Select input/output hardware required to achieve design solution (e.g., printers, scanners, storage devices, and digitized tablets).

SLO 12A.S.3.1.2   Select and apply computer hardware and software to create a design solution.

SLO 12A.S.3.1.3   Apply software tools and techniques to create a design solution (e.g., raster, vector, and page layout software).

SLO 12A.S.3.1.4   Research new techniques to achieve unique design solutions.

SLO 12A.S.3.1.5   Select and use the appropriate output device for proofs.

SLO 12A.S.3.1.6   Select options from the print dialog box consistent with job specifications (e.g., paper, type of paper orientation, separation, paper size, screen angles, bleeds, and printer's marks).

GLO 3.2: Operate and maintain **print production tools and equipment**.

SLO 12A.S.3.2.1   Assist in clean-up of the work area and equipment.

GLO 3.3: Operate and maintain **post-press tools and equipment**.

SLO 12A.S.3.3.1   Assist in clean-up of the work area and equipment.

GLO 3.4: Handle and store print production materials.

No applicable SLOs.

Goal 4: Describe and apply the transferable **cross-curricular** (e.g., math, literacy, and scientific) knowledge and skills as they apply to the print industries.

GLO 4.1: Apply **mathematical solutions** to design production problems (e.g., conversion, measurement, estimation, and accuracy).

SLO 12A.S.4.1.1   Apply measurement (e.g., points, margins, gutters, column widths, point size, line size, and line gauge) and mathematical functions (e.g., conversions, ratios, percentages, and positioning systems) to the document set-up and creation for the design solution.

SLO 12A.S.4.1.2   Determine appropriate size for the design solution.

GLO 4.2: Read, write, interpret, and communicate information related to the design and print process (e.g., proofreading, visual, and/or written communication).

SLO 12A.F.4.2.1   Synthesize the information required to write information related to the design and print process.

SLO 12A.S.4.2.1   Interpret work-related materials to determine the design procedure (e.g., specifications, teacher instructions, and dockets).

SLO 12A.S.4.2.2   Read and extract information from materials on topics related to the design procedure (e.g., design-related journals, tutorials, trends, techniques and styles, online sources, and RFPs).

SLO 12A.S.4.2.3   Write for specific target audiences and purposes (e.g., ad copy, articles, and memos).

SLO 12A.S.4.2.4   Apply proper spelling, grammar, and punctuation to written work.

SLO 12A.S.4.2.5   Communicate detailed work instructions and specifications (e.g., docket, workflow instructions).

| SLO 12A.S.4.2.6 | Communicate in writing to ensure information and messages are clear, concise, and easy to understand. |
| SLO 12A.S.4.2.7 | Demonstrate interpersonal skills needed to communicate with clients. |

GLO 4.3: Describe the **physical properties of materials** used in the print production process and factors in the physical environment (e.g., conductivity, pH, and viscosity).

SLO 12A.F.4.3.1	Evaluate the results of using different materials and processes to fulfill specific client requirements.
SLO 12A.F.4.3.2	Discuss the properties of specific types of substrate used in printing.
SLO 12A.S.4.3.1	Communicate the results of using different materials and processes as they affect the design process (e.g., coated versus uncoated paper).

Goal 5: Consider the impact of **sustainability** as it pertains to the print industry.

GLO 5.1: Appreciate the implications of the printing process on the **environment**.

SLO 12A.F.5.1.1	Consider design choices based on environmental impact (e.g., recycled paper, coatings, print providers, and water-based ink).
SLO 12A.F.5.1.2	Describe local methods of disposal for e-waste (e.g., computers, printers, scanners, and software).
SLO 12A.F.5.1.3	Discuss the global impact of e-waste.
SLO 12A.F.5.1.4	Recognize the impact of environmentally friendly materials on the design message.
SLO 12A.S.5.1.1	Advocate for sustainable practices.

GLO 5.2: Describe the interaction between society and the print industry and its impact on **sustainability**.

| SLO 12A.F.5.2.1 | Evaluate how the message in a design influences the values of human health and well-being. |
| SLO 12A.S.5.2.1 | Design materials that promote the values of human health and well-being (e.g., wellness, inclusiveness, and non-discriminatory behaviour). |

GLO 5.3: Recognize the **economic benefits of sustainable practices** in the print industry.

SLO 12A.F.5.3.1　Evaluate the economic benefit of a sustainability-influenced design solution.

Goal 6: Explain the **evolution, technological progression, and emerging trends** in the print industry.

GLO 6.1: Appreciate the **historical significance, social impact, and continuing evolution** and development of the print industry (e.g., the evolution and progression of design styles and approaches).

SLO 12A.F.6.1.1　Analyze and identify the influence of print on the local, national, and global communities (e.g., propaganda, advertising, dissemination of information, and hidden and unintended messages).

SLO 12A.S.6.1.1　Model design solutions, considering current and past design styles and movements.

GLO 6.2: Demonstrate an awareness of the **evolution and progression of design styles and approaches**.

No applicable SLOs.

GLO 6.3: Demonstrate awareness of the continuing **evolution of the print industry,** as well as its **emerging trends and future technologies**.

SLO 12A.F.6.3.1　Research and identify emerging trends and technology related to the design process and the need to adapt to changes.

SLO 12A.S.6.3.1　Model design solution with consideration for current and past design styles and movements.

Goal 7: Demonstrate knowledge of appropriate **health and safety** practices and the ability to recognize and apply them to maintain a safe workplace.

GLO 7.1: Describe and apply **health and safety rights, responsibilities, and procedures**.

SLO 12A.P.7.1.1　Describe and apply health and safety rights, responsibilities, and safety procedures as they apply to design.

GLO 7.2: Describe and follow **health and safety laws and regulations** as they relate to graphic print production.

No applicable SLOs.

Goal 8: Describe and follow the **ethical and legal standards** in the print industry.

GLO 8.1: Describe and follow current legal responsibilities and requirements when accessing **intellectual property** (e.g., copyright, trademarks).

SLO 12A.P.8.1.1	Recognize the designer's responsibility to ensure work follows the legal requirements regarding intellectual property.
SLO 12A.P.8.1.2	Describe the role of contracts in the design process.
SLO 12A.P.8.1.3	Develop strategies to discuss controversial material issues with clients (e.g., hate literature, pornography, sexually explicit content, and religious content).

GLO 8.2: Describe and follow **ethical trade practices**.

SLO 12A.P.8.2.1	Design and print projects consistent with the local school code of conduct.
SLO 12A.P.8.2.2	Adhere to ethical trade practices related to the design process (e.g., misleading messages, protection of sensitive information, questionable content, billing practices, and adherence to contracts).

Goal 9: Demonstrate **employability skills** required in the graphic design and print industries.

GLO 9.1: Demonstrate **fundamental employability skills**.

SLO 12A.P.9.1.1	Arrive to the work station on time and ready to work.
SLO 12A.P.9.1.2	Consider how employability skills can be transferred among school, work, and daily life.
SLO 12A.P.9.1.3	Communicate using the language of the trade area.
SLO 12A.P.9.1.4	Share information through written and oral communication.
SLO 12A.P.9.1.5	Understand and appreciate the points of view of others.
SLO 12A.P.9.1.6	Access, analyze, and apply information resources to solve trade area problems.
SLO 12A.P.9.1.7	Analyze and evaluate problems and recommend creative and innovative solutions.
SLO 12A.P.9.1.8	Implement solution and assess for effectiveness.

GLO 9.2: Demonstrate **personal management skills**.

SLO 12A.P.9.2.1 Interact with people, problems, and situations with honesty, integrity, and personal ethics.

SLO 12A.P.9.2.2 Demonstrate interest, initiative, and effort.

SLO 12A.P.9.2.3 Plan and manage time to complete tasks/projects within stated deadlines.

SLO 12A.P.9.2.4 Demonstrate responsibility and leadership by being accountable for your actions and those of your group.

SLO 12A.P.9.2.5 Adapt to change and compromise in new situations and suggest alternative ways to achieve complete tasks/projects.

SLO 12A.P.9.2.6 Demonstrate the willingness to continuously learn and teach, mentor, or coach others.

SLO 12A.P.9.2.7 Develop a personal learning plan.

GLO 9.3: Demonstrate **teamwork skills**.

SLO 12A.P.9.3.1 Recognize and respect people's diversity, individual differences, and perspectives when working in a group.

SLO 12A.P.9.3.2 Lead or support a group, when appropriate, to achieve the goals of the group.

SLO 12A.P.9.3.3 Provide contributions to the group and work within its dynamics to achieve a goal.

SLO 12A.P.9.3.4 Independently plan, design, or carry out a project or task from start to finish, monitoring for agreed-upon work standards along the way.

SLO 12A.P.9.3.5 Readily provide assistance to other students and teachers to complete a task/project.

Goal 10: Describe **career opportunities** in the print production industry.

GLO 10.1: Demonstrate awareness of **employment and post-secondary opportunities** related to print production.

SLO 12A.P.10.1.1 Identify various sectors and occupational areas related to graphic design.

SLO 12A.P.10.1.2 Demonstrate awareness of the working conditions and dynamics of the graphic design industry.

SLO 12A.P.10.1.3 Select *Advanced Design* items for their Print Media Career Portfolio.