8467
DESIGN (11A)

30S/30E/30M

A Print Media Course

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Course Description

This course is intended for students considering specialization in print media.

Curriculum content focuses on the initial stages of design within the print media process. Topics include the following:

- principles and elements of design
- solving design problems
- fundamentals of design
- page layout
- layout software
- typography

The course includes an emphasis on essential skills related to safety and employability skills. Students also learn about career development, sustainability, and new and emerging technologies specifically related to print media design.

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 11A.F.1.1.1	Identify options (e.g., billboard, packaging, advertisement, and environmental exposure) based on the end use of product.
SLO 11A.F.1.1.2	Identify cost factors (e.g., materials, labour, and quantity) for the design and print process.
SLO 11A.F.1.1.3	Identify the impact demographics, audience, and client preferences have on the design solution.
SLO 11A.F.1.1.4	Describe the design process (i.e., thumbnails, rough layouts, comprehensives, and production layout).

SLO 11A.S.1.1.1	Gather and interpret information specific to the design problem.
SLO 11A.S.1.1.2	Communicate the design process.

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

SLO 11A.F.1.2.1	Describe and list the basic 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 11A.F.1.2.2	Identify the impact budget has on design.
SLO 11A.S.1.2.1	Gather visual research for design solutions.
SLO 11A.S.1.2.2	Identify the required specifications (e.g., colour, size, font, and images) for the design problem.

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

SLO 11A.F.1.3.1	Describe the use of the principles of design in pre-existing print materials.
SLO 11A.F.1.3.2	Demonstrate basic knowledge of how elements and principles of design communicate messages effectively.
SLO 11A.F.1.3.3	Identify the fundamentals (e.g., classifications, style, and structure) of typography.
SLO 11A.F.1.3.4	Identify type formatting (e.g., kerning, leading, justification, readability, and legibility) techniques.
SLO 11A.F.1.3.5	Identify the rules of typography.
SLO 11A.S.1.3.1	Arrange elements by applying principles of design to create a basic layout for a variety of printed materials.
SLO 11A.S.1.3.2	Apply the basic rules of typography.

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

SLO 11A.F.1.4.1	Demonstrate basic knowledge of the initial stages of the design process (e.g., thumbnails, rough layouts).
SLO 11A.F.1.4.2	Identify brainstorming techniques (e.g., mind map, visual, and words).
SLO 11A.F.1.4.3	Describe how existing models can be used to develop a design option.
SLO 11A.F.1.4.4	Consider the appropriateness of specific typographical solutions.
SLO 11A.S.1.4.1	Brainstorm design ideas.

SLO 11A.S.1.4.2   Draw thumbnails and rough layouts using appropriate symbols (e.g., type, graphic elements).

GLO 1.5: Communicate the design solution.

SLO 11A.F.1.5.1   Describe the process of presenting a design solution to the client.

SLO 11A.F.1.5.2   Describe the process of communicating and collaborating on a completed design with the printer.

SLO 11A.S.1.5.1   Communicate and justify design solution (e.g., rough layouts, typography, explanations, and justifications of the design).

SLO 11A.S.1.5.2   Verify proof to design specifications.

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

SLO 11A.F.1.6.1   Identify software (e.g., page layout, image manipulation, and illustration) used in the print production industry.

SLO 11A.F.1.6.2   Identify the basic differences between vector and raster images.

SLO 11A.F.1.6.3   Demonstrate basic knowledge of resolution in relation to output (e.g., ppi, dpi, lpi, screen resolution, and stochastic).

SLO 11A.F.1.6.4   Demonstrate basic knowledge of colour management/ colour modes (e.g., subtractive, additive colour, spot, RGB, and CMYK).

SLO 11A.F.1.6.5   Demonstrate basic knowledge of file management practices and commonly used file formats for design and print production.

SLO 11A.F.1.6.6   Demonstrate basic knowledge of the purpose of a comprehensive proof.

SLO 11A.S.1.6.1   Navigate operating system and apply file management practices (e.g., naming, formats, hierarchies, and saving).

SLO 11A.S.1.6.2   Use basic tools to create and manipulate raster and vector images for page layout.

SLO 11A.S.1.6.3   Use appropriate procedures to acquire digital and continuous tone images (e.g., scanner and digital camera).

SLO 11A.S.1.6.4   Apply basic typographical techniques.

SLO 11A.S.1.6.5   Convert images between vector and raster formats.

SLO 11A.S.1.6.6   Create and print comprehensive proofs.

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

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

SLO 11A.F.2.1.1   Describe various print production methods (e.g., offset, flexography, screen, and digital) as they affect design.

SLO 11A.F.2.1.2   Recognize basics of layout and geometry (i.e., margins, bleeds, marks, page information, document size, page orientation, and page count, etc.).

SLO 11A.F.2.1.3   Describe the purpose of file collection in the print production process (e.g., pre-flight, file hierarchy, and file management).

SLO 11A.F.2.1.4   Demonstrate basic knowledge of proofing at various stages.

SLO 11A.F.2.1.5   Differentiate among CMYK, RGB, and spot colour format.

SLO 11A.S.2.1.1   Verify that the files have the appropriate layout and geometry.

SLO 11A.S.2.1.2   Verify that files are collected and ready for pre-press.

SLO 11A.S.2.1.3   Verify proof to production specifications.

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

SLO 11A.F.2.2.1   Recognize the impact various printing production methods have on design.

SLO 11A.S.2.2.1   Apply printing production methods to create simple (e.g., one- or two-colour) projects.

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

SLO 11A.F.2.3.1   Recognize the implications of post-press methods on design.

SLO 11A.S.2.3.1   Incorporate post-press techniques (e.g., perforation line, dye lines, score lines, and margins) into design.

SLO 11A.S.2.3.2   Verify the design accuracy and functionality specific to post-press techniques. (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 11A.F.3.1.1   Describe the common uses of print production software.

SLO 11A.F.3.1.2   Describe the tools and procedures of print production software.

SLO 11A.F.3.1.3	Describe input/output hardware and their uses (e.g., printers, scanners, storage devices, and digitized tablets).
SLO 11A.S.3.1.1	Use input/output hardware (e.g., printers, scanners, storage devices, and digitized tablets).
SLO 11A.S.3.1.2	Use computer hardware and software to create a design.
SLO 11A.S.3.1.3	Use software tools and basic techniques to create a design (e.g., raster, vector, and page-layout software).
SLO 11A.S.3.1.4	Use available resources (e.g., built-in help, web) to explore techniques and troubleshoot software and hardware issues.
SLO 11A.S.3.1.5	Select and use the appropriate output device for proof.
SLO 11A.S.3.1.6	Select options from the print dialog box (e.g., paper, type of paper orientation, separation, paper size, screen angles, bleeds, printer's marks).

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

SLO 11A.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 11A.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 11A.F.4.1.1	Describe commonly used measurement units in print production.
SLO 11A.F.4.1.2	Convert between measurement systems (e.g., points, picas, metric, and imperial).
SLO 11A.F.4.1.3	Describe ratios and percentages as they relate to design scaling and proportion.
SLO 11A.F.4.1.4	Describe positioning systems as used to achieve a design effect (e.g., quadrants, X- and Y-axis, and grid systems).
SLO 11A.F.4.1.5	Identify common sizes for print products (e.g., business cards, envelopes, mailed products, and letterhead).

SLO 11A.S.4.1.1	Apply measurement to the document set-up and creation (e.g., points, margins, gutters, column widths, point size, line size, and line gauge).
SLO 11A.S.4.1.2	Apply scale and proportion to graphical elements appropriately.
SLO 11A.S.4.1.3	Calculate moving distance (e.g., manually imposing, step and repeat).
SLO 11A.S.4.1.4	Perform basic calculations (i.e., addition, subtraction, multiplication, and division of whole and decimal numbers and fractions).

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 11A.F.4.2.1	Describe project specification and proofreading symbols.
SLO 11A.S.4.2.1	Read simple and brief work-related materials related to the design procedure (e.g., specifications, teacher instructions, and dockets).
SLO 11A.S.4.2.2	Read materials on topics related to the design procedure (e.g., design-related journals, tutorials, trends, techniques and styles, online sources, and RFPs).
SLO 11A.S.4.2.3	Write for specific target audiences and purpose (e.g., ad copy, articles, and memos).
SLO 11A.S.4.2.4	Apply proper spelling, grammar, and punctuation to written work.

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 11A.F.4.3.1	Recognize various printing materials are used for different print products and processes (e.g., inks, substrate, coatings, varnishes, photographic material, washes, cleaning solutions, and solvents).
SLO 11A.F.4.3.2	Identify the properties and manufacturing process for printing substrate.
SLO 11A.F.4.3.3	Recognize the effects of humidity, temperature, and storage conditions on printing substrate.
SLO 11A.S.4.3.1	Match the appropriate product with the specific printing product or process.
SLO 11A.S.4.3.2	Modify the printing process in order to accommodate different levels of humidity, temperature, and storage conditions.

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 11A.F.5.1.1	Describe implications of design choices on the environment (e.g., paper, ink, coatings, aluminum plates, and de-inking chemicals).
SLO 11A.F.5.1.2	Describe paper recycling options (e.g., post-consumer and pre-consumer paper, F and SC paper).
SLO 11A.F.5.1.3	Describe methods of disposal for e-waste and the impact on the environment (e.g., computers, printers, scanners, and software).
SLO 11A.S.5.1.1	Include recognition of the sustainable practices (e.g., eco-friendly logos and information) in the design solution.

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

SLO 11A.F.5.2.1	Recognize the influence of design on human health and well-being (e.g., image selection and manipulation, typographic message).

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

SLO 11A.F.5.3.1	Discuss the economic benefits of sustainable practices used to achieve the 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 11A.F.6.1.1	Describe the evolution of design movements.
SLO 11A.F.6.1.2	Describe the influence of print on society (e.g., propaganda, advertising, and dissemination of information).

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

SLO 11A.F.6.2.1   Describe the influence of print on society (e.g., propaganda, advertising, and dissemination of information).

SLO 11A.F.6.2.2   Describe how past, current, and future technologies influence design styles.

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

SLO 11A.F.6.3.1   Demonstrate an awareness of the continuing evolution of design, as well as its emerging trends and future technologies.

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 11A.P.7.1.1   Demonstrate adherence to safe practices and procedures for facilities, processes, materials, tools, and equipment used in design.

SLO 11A.P.7.1.2   Identify hazards associated with design (e.g., storing and disposing chemicals, ventilation).

SLO 11A.P.7.1.3   Demonstrate ergonomically correct procedures to avoid injury (e.g., stress, strain).

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

SLO 11A.P.7.2.1   Describe and follow health and safety laws and regulations as they relate to design.

SLO 11A.P.7.2.2   Comply with health and safety legislation and practices.

SLO 11A.P.7.2.3   Identify personal responsibility for health and safety.

SLO 11A.P.7.2.4   Describe the reporting process for injuries.

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 11A.P.8.1.1 Describe ownership rights and the process for securing intellectual property (e.g., plagiarism, copyright violation, hate literature, and acknowledging sources).

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

SLO 11A.P.8.2.1 Describe ethical trade practices related to the design process (e.g., misleading messages, protection of sensitive information, questionable content, and billing practices).

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

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

SLO 11A.P.9.1.1 Describe the importance of employability skills in school, work, and daily life.

SLO 11A.P.9.1.2 Listen and ask questions to clarify problems and instructions.

SLO 11A.P.9.1.3 Locate, gather, and organize *trade area* information using appropriate technology and information systems.

SLO 11A.P.9.1.4 Assess situations and identify problems and possible solutions.

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

SLO 11A.P.9.2.1 Arrive to the work station on time, ready to work.

SLO 11A.P.9.2.2 Demonstrate interest, initiative, and effort.

SLO 11A.P.9.2.3 Manage time to complete tasks/projects within stated deadlines.

SLO 11A.P.9.2.4 Demonstrate responsibility by being accountable for your actions and those of your group.

SLO 11A.P.9.2.5 Respond constructively to changes and feedback.

SLO 11A.P.9.2.6 Demonstrate the willingness to continuously learn.

SLO 11A.P.9.2.7 Appreciate the need for continuous learning in technologically dependant occupations.

GLO 9.3: Demonstrate **teamwork skills**.

SLO 11A.P.9.3.1 Be respectful, open to, and supportive of the thoughts, opinions, and contributions of others in a group.

SLO 11A.P.9.3.2 Contribute information and skills to achieve the goals of a group.

SLO 11A.P.9.3.3 Contribute willingly to classroom/shop activities.

SLO 11A.P.9.3.4 Accept and offer assistance from others.

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 11A.P.10.1.1 Describe a variety of career and employment opportunities related to trades and technology.

SLO 11A.P.10.1.2 Identify and describe career and employment opportunities related to graphic design.

SLO 11A.P.10.1.3 Select *Design* items for their Print Media Career Portfolio.