**Course Description:**

Aesthetics and techniques are essential to producing a good photograph. This course focuses on capturing and manipulating images in digital photography with some skill development in darkroom film processing, printing and enlarging. Topics include camera functions, mechanics of image capture, image manipulation, and print production. Students shoot photographs in various studio and indoor and outdoor settings.

**Strand 1. Business Operations/21st Century Skills**

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager and employee role to the leadership, planning, developing and analyzing of business enterprises related to the career field.

**Outcome 1.1. Employability Skills**

Develop career awareness and employability skills (e.g., face‐to‐face, online) needed for gaining and maintaining employment in diverse business settings.

**Competencies**

1.1.1. Identify the knowledge, skills and abilities necessary to succeed in careers.

1.1.2. Identify the scope of career opportunities and the requirements for education, training,

certification, licensure and experience.

1.1.3. Develop a career plan that reflects career interests, pathways and secondary and

postsecondary options.

1.1.6. Explain the importance of work ethic, accountability and responsibility and demonstrate

associated behaviors in fulfilling personal, community and workplace roles.

1.1.7. Apply problem‐solving and critical‐thinking skills to work‐related issues when making decisions

and formulating solutions.

1.1.8. Identify the correlation between emotions, behavior and appearance and manage those to

establish and maintain professionalism.

1.1.9. Give and receive constructive feedback to improve work habits.

1.1.10. Adapt personal coping skills to adjust to taxing workplace demands.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 1.2. Leadership and Communications**

Process, maintain, evaluate and disseminate information in a business. Develop leadership and team building to promote collaboration.

**Competencies**

1.2.5. Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose.

1.2.7. Use problem-solving and consensus-building techniques to draw conclusions and determine next steps.

1.2.10. Use interpersonal skills to provide group leadership, promote collaboration and work in a team (e.g., writer, reporter, designer, director, actor, conductor, technical crew).

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 1.3. Business Ethics and Law**

Analyze how professional, ethical and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.

**Competencies**

1.3.1. Analyze how regulatory compliance affects business operations and organizational performance.

1.3.2. Follow protocols and practices necessary to maintain a clean, safe and healthy work environment.

1.3.3. Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice).

1.3.5. Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization.

1.3.8. Verify compliance with computer and intellectual property laws and regulations.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 1.4. Knowledge Management and Information Technology**

Demonstrate current and emerging strategies and technologies used to collect, analyze, record and share information in business operations.

**Competencies**

1.4.1. Use office equipment to communicate (e.g., phone, radio equipment, fax machine, scanner, public address systems).

1.4.2. Select and use software applications to locate, record, analyze and present information (e.g., word processing, e-mail, spreadsheet, databases, presentation, Internet search engines).

1.4.4. Use system hardware to support software applications (e.g., innovations in imaging and screen printing).

1.4.7. Use personal information management and productivity applications to optimize assigned tasks (e.g., lists, calendars, address books).

1.4.8. Use electronic media (e.g., social media) to communicate and follow network etiquette guidelines.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 1.5. Global Environment**

Evaluate how beliefs, values, attitudes and behaviors influence organizational strategies and goals.

**Competencies**

1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.

1.5.6. Analyze work tasks for understanding and interpretation from a different cultural perspective.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 1.6. Business Literacy**

Develop foundational skills and knowledge in entrepreneurship, financial literacy and business operations.

**Competencies**

1.6.1. Identify business opportunities.

1.6.3. Explain the importance of planning your business.

1.6.5. Describe organizational structure, chain of command, the roles and responsibilities of the organizational departments and interdepartmental interactions.

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**Outcome 1.7. Entrepreneurship/Entrepreneurs**

Analyze the environment in which a business operates and the economic factors and opportunities associated with self-employment.

**Competencies**

1.7.7. Create a list of personal strengths, weaknesses, skills and abilities needed to be successful as an entrepreneur.

1.7.10. Describe techniques for obtaining experience (e.g., apprenticeship, co-operative [co-op] education, work placement, internship, job shadowing) related to an entrepreneurial objective.

1.7.13. Protect intellectual property and knowledge (e.g., copyright, patent, trademark, trade secrets, processes).

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**Outcome 1.8. Operations Management**

Plan, organize and monitor an organization or department to maximize contribution to organizational goals and objectives.

**Competencies**

1.8.1. Forecast future resources and budgetary needs using financial documents (e.g., balance sheet, demand forecasting, financial ratios).

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 1.10. Sales and Marketing**

Manage pricing, place, promotion, packaging, positioning and public relations to improve quality customer service.

**Competencies**

1.10.2. Determine the customer's needs and identify solutions.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Strand 2. Design**

Learners apply the elements and principles of design and compositional techniques to create works of art and visual layouts for both tactile and digital art forms.

**Outcome 2.1. Art Elements and Design Principles**

Analyze works of art for the art elements and the design principles needed to create professional products.

**Competencies**

2.1.1. Describe art elements of line, value, color, shape, space, form and texture in various media that are used individually or in combination.

2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction) of art elements that communicate and express ideas.

2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy and proportion/scale, to communicate ideas.

2.1.4. Compare and contrast unity and variety within a design.

2.1.5. Contrast formal/symmetrical, informal/asymmetrical and radial balance.

2.1.6. Observe movement shown through repetition, pattern and rhythm.

2.1.7. Interpret emphasis through contrast, isolation, size and placement.

2.1.9. Recognize the use of proportion/scale.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 2.2. Color Theory**

Assess the use of color for commercial design.

**Competencies**

2.2.1. Explain the science of color perception using the electromagnetic spectrum.

2.2.4. Identify gamut output issues and calibrate color.

2.2.7. Compare and contrast additive and subtractive color theory (e.g., RGB, CMYK).

2.2.8. Compare and contrast choices using the psychology of color.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 2.3. Art Forms**

Apply art elements and design principles to create two-dimensional (2D) and three-dimensional (3D) commercial products using various media to communicate the message and evoke the desired audience response.

**Competencies**

2.3.4. Demonstrate shape, volume, depth and dimension.

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| Pathways |  | Media Arts |  | Performing Arts | X | Visual Design |

**Outcome 2.4. Visual Layouts**

Create layouts for pre-production and analyze the communicative effects on the commercial product.

**Competencies**

2.4.1. Create thumbnail and rough sketches.

2.4.2. Apply the proper color profile for the final output.

2.4.7. Determine composition, formal qualities, scale and use of space.

2.4.8. Apply compositional techniques, including rule of thirds, use of a grid system, 180-degree rule, framing, fill frame, pyramid, strong center of interest and aspect ratio.

2.4.12. Evaluate the product in terms of the message or meaning for the targeted audience.

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| Pathways |  | Media Arts |  | Performing Arts | X | Visual Design |

**Strand 3. Written Content Creation**

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism or marketing purposes.

**Outcome 3.1. Career-based Writing**

Develop basic skills and knowledge related to fact-, entertainment- and marketing-based copy.

**Competencies**

3.1.10. Select visual imagery to support or enhance copy.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 3.4. Market-based Writing**

Write concise, creative, memorable, sellable copy for advertising, public relations and proposals.

**Competencies**

3.4.2. Determine the wants and needs of the target audience.

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Strand 4. Audio, Video and Photo Imaging**

Learners apply knowledge and skills of photography and videography to capture, engineer and manipulate audio, images and video for a media production.

**Outcome 4.1. Science of Sound**

Apply the characteristics and properties of sound to a professional production.

**Competencies**

4.1.1. Analyze sound by its properties, including amplitude, frequency, wavelength, velocity, diffraction, diffusion, phase and harmonics.

4.1.2. Classify elements in sound transduction, including resistance, balanced versus unbalanced lines and how sound energy is converted into electrical energy.

4.1.3. Identify sound as measured or perceived.

4.1.4. Identify sound pressure level (SPL).

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| Pathways | X | Media Arts | X | Performing Arts |  | Visual Design |

**Outcome 4.5. Photography**

Capture and edit still images for commercial purposes.

**Competencies**

4.5.1. Analyze the capabilities of different image capturing devices.

4.5.2. Clean and maintain camera equipment.

4.5.3. Identify the effects of ISO settings on image quality.

4.5.4. Achieve proper exposure through light, shutter speed and aperture.

4.5.5. Affect apparent motion through shutter speed.

4.5.6. Manipulate aperture settings to alter depth of field.

4.5.7. Alter image through focus, white balance, exposure modes and polarization.

4.5.8. Capture images through various lenses and camera angles.

4.5.9. Modify images through sizing, cropping and output resolution.

4.5.10. Modify an image through color-management and special effects.

4.5.11. Enhance an image with tone, contrast, filters, composites and sharpening techniques.

4.5.12. Retouch an image by cloning, healing, patching and rebuilding.

4.5.13. Integrate image capture with post-production processes.

4.5.14. Capture multiple images and render them in high dynamic range.

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| Pathways | X | Media Arts |  | Performing Arts | X | Visual Design |

**Strand 5. Print Production Process**

Learners apply knowledge and skills to produce print or digital products.

**Outcome 5.2. File Output**

Output files for print production.

**Competencies**

5.2.1. Determine the resolution of the output device.

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| Pathways |  | Media Arts |  | Performing Arts | X | Visual Design |

**Strand 6. Digital Design**

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video or photo images to create graphics for internet, broadcast, mobile and other multimedia applications.

**Outcome 6.1. Content Management**

Import, store, export and manage digital assets.

**Competencies**

6.1.4. Import media into the selected application.

6.1.6. Convert file formats for use in editing software and other applications.

6.1.7. Export media in the appropriate format for delivery.

6.1.8. Manage digital assets through organizational techniques (e.g., metadata, keywords, file/folder structure, name conventions).

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| Pathways | X | Media Arts | X | Performing Arts | X | Visual Design |

**Outcome 6.2. Scanning**

Apply scanning techniques and procedures to capture images for design.

**Competencies**

6.2.6. Scale, size and adjust file resolution for multiple uses.

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| Pathways | X | Media Arts |  | Performing Arts | X | Visual Design |

**Outcome 6.5. Web Page Design**

Design and create webpages to appeal to the end user.

**Competencies**

6.5.18. Transfer files using file compression for transfer or storage.

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| Pathways | X | Media Arts |  | Performing Arts | X | Visual Design |

**Strand 7. Performance**

Learners apply knowledge and skills for performance, including roles, processes, procedures and production design.

**Outcome 7.2. Genres**

Analyze and critique the stylistic differences among genres.

**Competencies**

7.2.2. Identify and compare the lives, works and influence of significant individuals in various cultures, traditions and historical periods.

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| Pathways | X | Media Arts | X | Performing Arts |  | Visual Design |