LONDON CAPITAL COMPUTER COLLEGE

Advanced Diploma in Graphic Design (992) – Photography & Video Editing

Prerequisites: Excellent keystroking ability.	**Corequisites:** A pass or better in Diploma in Graphic Design or equivalence.

Aim: Photography

The course require candidates to have access to a camera with exposure metering and manually adjustable f-stops and shutter speeds. Photographic principles combines theoretical analysis and practical application of photography. Digital Photography gives candidates an introduction to the technical skills necessary to use computers, equipment, and software as a means of visually communicating photographic ideas. Candidates continue the aesthetic and technical investigations of black-and-white photography. Color Photography introduces the aesthetics and technology of color photography. Focuses on coordinating color theory with camera and darkroom experience. Includes a variety of color photographic processes and materials. Studio photography introduces professional studio photography practices. Continues utilization of the large-format camera while introducing the potentials of the medium format. Examines artificial lighting techniques and provides a context for exploration of the studio as a creative photographic environment.

Video Editing

Topics explored include: original image creation, photographic editing, scanning, printing, two-dimensional animation, sound digitizing pens, mouse, and digital camera. Various applications and tools include image input and output devices such as cameras and displays, graphics hardware and software, input technologies and interactive techniques, typography and page layout, light and color representations, exposure and tone reproduction, image composition and imaging models, digital signal processing, sampling, aliasing and antialiasing, compression, two- and three-dimensional geometry and transformations, modeling techniques including curves and surfaces, reflection models and illumination algorithms, and basic methods of animation. Candidates will explore digital capture and image editing techniques using such hardware devices as scanners, capture boards, digital cameras and video. Candidates must have access to a digital camera. Editing film and video is about movement, choreography, the play of light, color, and graphics. And beyond all that, it's all about psychology. The course explores techniques that can be applied in a range of non-linear editing programs. (College can choose any editing program of their choice - including Final Cut Express if using Mac, Avid, or Premiere). The main focus is not just on developing software skills; it's on exploring the magic behind video modification. The digital video editing course teaches candidates the basic principles of good filmmaking as well as advanced techniques to give videos a professional touch. Challenging projects include editing a commercial, an interview, a narrative scene, a music video, a video diary, and a text title sequence. Hands-on learning help candidates explore how to apply time-honored principles of film editing using today's digital technology. Whether candidates goal is to make better "home movies" or submit production the the "Local Film Festival", candidates will learn the digital video editing skills needed in the industry.

Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Lecture notes and tutor extra reading recommendations.

Special Requirements: This is a hands-on course, hence practical use of computers is essential. Requires intensive lab work outside of class time.

Intended Learning Outcomes:	**Assessment Criteria:**
Photography	**Photography**
1. Examine the roles of photography and demonstrate how to use photographic equipment.	1.1 Define exposure 1.2 Analyse camera brands
2. Explain the fundamental relationship between the photographic image and the effects of	2.1 Define a camera 2.2 Define the shutter

light intensity and duration.	2.3 Describe aperture 2.4 Define exposure
3. Outline the basic parts to a camera: the body, the viewing system, the capture plane, the aperture, the shutter, the lens, and storage.	3.1 Explain digital camera modes 3.2 Analyse how to press the shutter button 3.3 Describe autofocus 3.4 Analyse light metering techniques 3.5 Describe colour and white balance techniques
4. Outline the fundamentals of exposure every camera uses to control exposure and the mechanism that controls the amount of light entering the camera and the speed at which it does so.	4.1 Describe how to shoot sharp images 4.2 Analyse shutter speed characteristics 4.3 Be able to take control of shutter speed 4.4 Define stop 4.5 Distinguish shutter priority vs manual mode 4.6 Practice using shutter speed 4.7 Define reciprocity 4.8 Be able to control motion 4.9 Analyse shutter speed sequences
5. Outline the passive techniques for depth recovery and the factors that determine apparent sharpness.	5.1 Describe depth of field 5.2 Analyse how aperture is measured 5.3 Describe aperture priority mode and how it works 5.4 Define lens speed 5.5 Be able to shoot deep depth of field 5.6 Be able to shoot shallow depth of field 5.7 Analyse the depth-of-field preview button 5.8 Practice using aperture
6. Demonstrate how to set the sensitivity of the imaging chip inside a digital camera.	6.1 Outline ISO: The third exposure parameter 6.2 Assess camera's high ISO 6.3 Be able to shoot in low light 6.4 Practice shooting in low light
7. Demonstrate how to set a custom white balance in-camera rather than having Lightroom correct the white balance.	7.1 Analyse the camera’s white balance controls 7.2 Be able to adjust white balance manually 7.3 Distinguish shooting raw vs jpeg
8. Demonstrate how Metering modes tell the light meter to analyze the light in different ways.	8.1 Explore how light meters work 8.2 Describe why there are different modes? 8.3 Describe the metering modes
9. Demonstrate the essential skills to help improve the use of light in photography and encourage visual expression.	9.1 Be able to use exposure compensation 9.2 Distinguish intentional overexposure vs intentional underexposure 9.3 Be able to control tone 9.4 Be able to use a camera’s histogram 9.5 Describe tone and color enhancements 9.6 Be able to use auto exposure bracketing 9.7 Practice using exposure compensation
10. Describe how High Dynamic Range (HDR) photography overcomes technological limitations.	10.1 Define dynamic range in digital photography 10.2 Analyse limited exposure latitude in the highlights

	10.3 Define fill flash
11. Demonstrate manual exposure mode versus automated exposure mode.	11.1 Analyse manual mode camera settings 11.2 Explore manual mode and light meters 11.3 Practice using the manual exposure
12. Demonstrate the features of a digital camera exposure mode control system.	12.1 Explore custom modes and A-DEP 12.2 Analyse the functions of program shift 12.3 Explore exposure compensation with program shift 12.4 Practice how exposure reciprocity works 12.5 Explore scene modes and in-camera processing
Video Editing 1. Demonstrate the built-in editing feature and to trim video clips.	**Video Editing** 1.1 Tour the Select Project window 1.2 Explore bins 1.3 Customise user settings 1.4 Be able to set up and organise a project 1.5 Practice saving and backing up the project
2. Demonstrate the requirements needed to edit a video production , organising and trimming video clips and working with timeline tracks	2.1 Tour the Composer Monitor and the Timeline 2.2 Tour the Edit interface 2.3 Be able to use the splicing tool to add shots 2.4 Analyse splicing properties when added to non-linearly smoothers 2.5 Analyse photo recovery on overwritten shots 2.6 Remove shots using Extract and Lift 2.7 Be able to use Segment mode (Extract/Splice) to switch shots 2.8 Be able to use Segment mode (Lift/Overwrite) to move shots 2.9 Be able to use Extract/Splice and Lift/Overwrite together 2.10 Be able to manipulating the Timeline directly 2.11 Create subclips and subsequences 2.12 Be able to add multiple video and audio tracks
3. Describe the basics of video editing, including refining edit points, capturing and transferring footage, applying transitions, mixing audio tracks.	3.1 Define trimming 3.2 Be able to perform single-roller trims 3.3 Be able to perform dual-roller trims 3.4 Be able to use Ripple Trim and Overwrite Trim 3.5 Define sync 3.6 Be able to solve sync problems
4. Demonstrate the demand of video customisation in today's world and how customisation can be achieved.	4.1 Be able to navigate and customise the editing program 4.2 Outline navigation shortcuts 4.3 Be able to use the Command palette 4.4 Customise the Timeline 4.5 Be able to use bin layouts 4.6 Be able to use workspaces 4.7 Be able to sort and sift clips

	4.8 Be able to use the Find tool 4.9 Be able to use markers 4.10 Be able to use PhraseFind 4.11 Be able to use ScriptSync
5. Demonstrate step-by-step instructions the different editing tasks and concepts within the video editing software applications.	5.1 Be able to trim 5.2 Be able to perform slip edits 5.3 Be able to perform Slide edits 5.4 Be able to perform Replace edits
6. Demonstrate how the DAW provides far more control over the soundtrack than the basic audio tools included in editing systems	6.1 Be able to read audio levels and pan 6.2 Be able to use the audio mixer 6.3 Be able to adjust or add audio keyframes 6.4 Be able to record audio adjustments on the fly
7. Demonstrate how combine video signals from two or more sources to perform wipes, keys, mattes.	7.1 Explore Quick Transition effects 7.2 Analyse the Transition Manipulation tool 7.3 Be able to use the Effects palette and the Effect Editor 7.4 Analyse Keyframing segment effects 7.5 Describe nesting and auto-nesting 7.6 Be able to save effect templates 7.7 Build basic composites using vertical effects 7.8 Be able to use the picture-in-picture (PIP) effect 7.9 Be able to use the Color effect 7.10 Be able to create basic motion effects 7.11 Be able to use Timewarp
8. Demonstrate the automated background processes that are activated whenever numerical calculations or transformations are performed by a computer application.	8.1 Describe system performance 8.2 Be able to render intelligently 8.3 Describe the different approaches and techniques developed for content-based video classification.
9. Demonstrate how the color correction feature allows editors to separate and make individual adjustments to the various primary and secondary color components of the video signal.	9.1 Analyse footage for problems 9.2 Be able to use the Y-Waveform monitor to set whites and blacks 9.3 Be able to use the RGB Parade to correct color casts 9.4 Be able to use the Vectorscope to improve skin tones 9.5 Be able to use auto color correction
10. Demonstrate how to use the generator Controls tab Create titles, creating more than just text with Avid's Title and Marquee tools.	10.1 Be able to format and enhance text using Avid Marquee 10.2 Be able to use Marquee to apply shapes and gradients 10.3 Be able to use title templates 10.4 Be able to bring the title into Media Composer 10.5 Be able to edit and revise the title 10.6 Be able to create rolling and crawling titles 10.7 Be able to use AutoTitler
11. Demonstrate how to capture, edit and import media from other sources.	11.1 Analyse how to import files 11.2 Be able to link to files using Avid Media

	Access (AMA) 11.3 Be able to link to hi-resolution stills 11.4 Be able to use the Avid Marketplace 11.5 Be able to use the Capture tool 11.6 Analyse ways to log and capture footage 11.7 Be able to use batch capturing
12. Demonstrate how editing software supports importing either stills or video from a DSLR or (H) DSLR camera, a tape-based camera or deck connected via FireWire.	12.1 Analyse how to delete material from the bin 12.2 Be able to use the Media tool 12.3 Explore how to delete unreferenced clips 12.4 Demonstrate splicing, sound dubbing, and color coordination for television.
13. Demonstrate outputting; including exporting a QuickTime file for the Web or for CD-ROM, creating an MPEG2 file for DVD authoring, or exporting a video frame as an image file for printing .	13.1 Outline how to prepare sequence for output 13.2 Explore how to perform a digital cut 13.3 Be able to export sequence as a file 13.4 Be able to export to different technologies.
14. Demonstrate troubleshooting video-editing software problems.	14.1 Outline solving offline media 14.2 Be able to re-link media 14.3 Be able to reset Avid settings 14.4 Be able to use the Avid Attic

Recommended Learning Resources: Photography and Video Editing

Text Books	• Collins Complete Photography Course by John Garrett and Graeme Harris ISBN-10: 0007279922 • The Digital Photography Book by Scott Kelby ISBN-10: 032147404X • Digital Video Editing: A User's Guide by Peter Wells ISBN-10: 1861269528 • The Really, Really, Really Easy Step-by-step Guide to Creating and Editing Digital Videos Using Your Computer by Christian Darkin ISBN-10: 1847734235
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	Avid or any Video Editing software of college choice