UNIVERSITI TEKNOLOGI MARA

CTA644: DIGITAL VISUAL COMPOSITION

Course Name (English)	DIGITAL VISUAL COMPOSITION APPROVED
Course Code	CTA644
MQF Credit	3
Course Description	This course introduces students to the digital compositing which combines two or sources to create a new images. It gathers elements for compositing from film/video, animation and still sources and the variety of techniques used as to manipulate and combine them. Students will also be exposed to the image-making through the study of frame composition, blue/green screen, editing and timing, screen colour theory and other compositing tools and techniques found in the post production software tools. This project-based course works in collaboration with other courses in semester six upon completing a final project.
Transferable Skills	1. Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts. 2. Demonstrate analytical skills using technology. 3. Demonstrate professional skills, knowledge and competencies.
Teaching Methodologies	Lectures, Blended Learning, Workshop, Computer Aided Learning
CLO	CLO1 Arrange the post-production workflow in effect-based work. CLO2 Adapt skill by combining multiple elements for seamless outcome. CLO3 Determine compositing knowledge and skill by completing projects.
Pre-Requisite Courses	No course recommendations

Topics
1. Course Briefing & Introduction 1.1) Course briefing
2. Introduction to After Effects 2.1) i. User interface and navigation 2.2) ii. Importing media 2.3) iii. Creating new composition 2.4) iv. Understanding aspect ratio 2.5) v. Understanding frame rate 2.6) vi. Timeline and navigation
3. Animation in After Effects 3.1) i. Layer transformation parameters 3.2) ii. Shortcut keys of parameters 3.3) iii. Transformation tools 3.4) iv. Editing and reset value 3.5) v. Set keyframing process 3.6) vi. Manipulating keyframing 3.7) vii. Graph editor 3.8) viii. Create slow in and slow out 3.9) ix. Adding motion blur to transformation 3.10) x. Pixel motion blur

4. Chroma Key 01 4.1) i. Understanding Keyer (Luma, Chroma) 4.2) ii. Green Screen 4.3) iii. Basic Masking (Garbage Matte) 4.4) iv. Keying process 4.5) v. Keying Techniques 4.6) vi. Pulling a basic key 4.7) vii. Dealing with edge 4.8) viii. Dealing with light spill
5. Chroma Key 02 5.1) i. Monitoring and review 5.2) ii. Background integration 5.3) iii. Color correction and grading 5.4) iv. Prepare chroma key breakdown 5.5) v. Rendering final output
6. Rotoscoping 01 6.1) i. History 6.2) ii. Rotoscoping tools 6.3) iii. Rotoscoping process 6.4) iv. Rotoscoping techniques
7. Rotoscoping 02 7.1) i. Briefing 7.2) ii. Monitoring and review 7.3) iii. Color correction and grading 7.4) iv. Prepare rotoscoping breakdown 7.5) v. Rendering final output
8. Animating Titles 8.1) i. Animating titles 8.2) ii. 3D titles 8.3) iii. Extruding text and adjusting bevels
9. Motion Tracking and Stabilizing 9.1) i. Briefing 9.2) ii. Monitoring and review 9.3) iii. Motion tracking tools 9.4) iv. Motion tracking process 9.5) v. Motion tracking techniques
10. Multiplane 3D Camera Projection 01 10.1) i. 3D camera and layer 10.2) ii. Example of application 10.3) iii. Motion blur and frame blending 10.4) iv. Layer masking preparation 10.5) v. Monitoring and review 10.6) vi. Animation 3D camera
11. Multiplane 3D Camera Projection 02 11.1) i. Adding depth 11.2) ii. Motion blur and frame blending 11.3) iii. Color correction
12. Trapcode 12.1) i. Introduction to trapcode 12.2) ii. Animating particles 12.3) iii. Trapcode particular and form basics.
13. Rendering 13.1) Rendering
14. Submission and presentations 14.1) Submission and presentations

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Group Assignment • Assignment 1 (montage)	30%	CLO1
Assignment	Individual Assignment • Assignment 2 (Rotoscoping & Chroma Key)	30%	CLO2
Assignment	Final Assignment • Crisscross	40%	CLO3

Reading List

Recommended Text

- **Kerlow, Isaac 2003, *The Art of 3D Computer Animation and Effects*, Fourth Ed., John Wiley & Son USA**
- **Brinkman, R 2008, *The Art and Science of Digital Compositing*, Second Ed., Academic Press England**

Reference Book Resources

- **Wright, Steve 2011, *Compositing Visual Effects: Essentials for the Aspiring Artist*, Second Ed., Focal Press United Kingdom**
- **Rickitt, Richard 2007, *Special Effects: The History and Technique*, Watson-Guptill Publication USA**
- **Hamilton, J 1998, *Special Effects in Film and Television*, London: Dorling Kindersley**
- **Smith, T.G 1986, *Industrial Light & Magic: The art of Special Effects*, London: Columbus**

Article/Paper List

This Course does not have any article/paper resources

Other References

- **Website *Hollywood Camera Works***
  http://www.hollywoodcameraworks.us
- **Website *Video Copilot***
  http://www.videocopilot.net