Course Title	:	Creative Digital Imaging
Course Code	:	CLA9014/CDS254
No. of Credits/Term	:	3
Mode of Tuition	:	Sectional approach
Class Contact Hours	:	3 hours per week
Category in Major Prog.	:	Creativity and Innovation Cluster Course/Free Elective
Prerequisite(s)	:	None

Brief Course Description

This course not only introduces the basic concepts and techniques of digital imaging and its creative use in various applications, but also highlights the innovations, potentials and social impacts brought by digital imaging technologies. Students will also learn about the legal and ethical use of current digital imaging software and equipment.

Aims

This course is designed as a self-contained course with a balanced approach to the art, science and ethics of digital images. It aims at familiarising students with the latest developments and innovations in digital imaging and promoting their creativity in working with images in various applications. Furthermore, the impact of digital technologies on various imaging applications is examined from the social, ethical and legal points of view.

Learning Outcomes

On completion of this course, students will be able to:

1. Explain the principles of digital imaging.
2. Identify and discuss various creative applications of digital imaging.
3. Apply basic digital imaging techniques.
4. Recognise and critically evaluate the ethical, social and professional responsibilities associated with a variety of digital imaging applications.
5. Explain the social impact of digital imaging technologies.

Measurement of Learning Outcomes

1. Assessed participation in classroom and laboratory sessions measures students' participation in the course based on their attendance as well as their contribution in

class discussion.

2. Introduced in lectures and demonstrated in laboratory sessions, students' understanding of the technical and ethical principles of digital imaging will be tested through laboratory exercises and a formal examination. Specifically, students will explore digital image techniques and applications with camera and computer equipment in the laboratory through exercises and assignments (ILOs 2,3). The formal examination will cover not only the principles and techniques but also applications as well as ethical and social issues on digital imaging (ILOs 1, 2, 3, 4, 5).

3. A group project will provide students the opportunity to gain experience on practical applications of digital imaging. *A major requirement of the group project is to study the social and ethical impact of digital imaging on the target application(s) and discuss any social, moral and legal issues involved.* (ILOs 2,3,4,5)

4. Students are required to present their findings in the form of written reports and oral presentations for their group projects. The report will be assessed for: 1) clarity and logic, 2) organisation, 3) methodology and rigor, and 4) analysis of results. The oral presentation will be assessed for: 1) organisation, 2) informativeness, 3) quality of delivery and 4) response to questions. (ILOs 2,3,4,5)

5. Students will also learn and apply creative skills in digital imaging software and equipment through a series of laboratory exercises which form a major part of the assessment tasks. (ILOs 2,3) These individually-based hands-on exercises cover the use of camera equipment and image editing software in various creative applications including photography, publishing, graphic design, etc.

	Assessment		
Learning Outcomes	Laboratory exercises	Group project	Examination
1. Explain the principles of digital imaging.			Individual
2. Identify and discuss various creative applications of digital imaging.	Individual	Group	Individual
3. Apply basic digital imaging techniques.	Individual	Group	Individual
4. Recognise and critically evaluate the ethical, social and professional responsibilities associated with a variety of digital imaging applications.		Group	Individual
5. xplain the social impact of digital imaging technologies		Group	Individual

Indicative Content

Historical background

Origins of photography, dark room techniques, the printing press, mass media, the Internet

Basic concepts and techniques
Colour, bitmaps, pixels, image compression, image processing, digital photography, image capture and editing; colour correction and retouching

Creative applications
Photography, publishing, graphic design, creative arts, web design, 3-D imaging

Creative Commons
Intellectual property rights, copyright licencing, public domain, users, online resources, Creative Commons in Hong Kong

Social, ethical and legal issues
Digital camera ownership and usage trends, social and behavioural impact of instant/mobile photo sharing, the role of digital imaging in social networking, privacy issues and abuses, legal case studies, online publishing and sharing, image authenticity, watermarking and verification.

Teaching Method

The principles and applications are introduced and demonstrated in lectures and laboratory sessions through examples. Students acquire various techniques through hands-on exercises during laboratory sessions. They will also study real-world applications through projects and learn about the social and ethical impact of digital imaging in these applications.

Assessment

Class Attendance and Participation (Individual)   : 5%
Laboratory exercises (Individual)   : 30%
Group Project   : 25%
Examination (Individual)   : 40%

Required/Essential Readings

| K. Eismann, S. Duggan, & T. Grey | Real World Digital Photography (3rd ed.) | Peachpit Press, 2011 |
| R. Plotkin | Computers, Internet, and Society: Computers | Facts on file , 2012 |

and Creativity

M. W. Marien	Photography: A Cultural History	Pearson, 2011

Recommended/Supplementary Readings

M. Lister	The Photographic Image in Digital Culture	Routledge, 1995
Y. Wong	Digital Art: Its Art and Science	Prentice Hall 2009
J. W. Macario	Graphic Design Essential: Skills, Software, and Creative Solutions	Prentice Hall 2009
U.S. Copyright Office	The Digital Millennium Copyright Act (DMCA)	http://www.copyright.gov/legislation/dmca.pdf
Creative Commons Hong Kong (CCHK)	Creative Commons Hong Kong Home Page	http://hk.creativecommons.org
D. Margulis	Professional Photoshop: the classic guide to color correction	Wiley, 2007