SAGRADO

Universidad del Sagrado Corazón

SYLLABUS

TITLE: Digital Image Manipulation and Editing
CODE: ADT 101
PREREQUISITES: N/A
CREDITS: 3 credits | 45 contact hours | 1 term

DESCRIPTION

This course is a starting point for students to become familiar with the concepts and techniques necessary for generation, manipulation, and animation. By combining the historical background with guided exercises, students will be exposed to the typical nomenclature of the industry. They will acquire a fundamental understanding of the basic but necessary processes to move towards education in digital art and animated production. The course covers three core areas: (1) introduction to digital imaging, (2) image manipulation and editing, and (3) experimental animation.

JUSTIFICATION

Changes in today's economy require people to be adept in visual communication through the use of creative technologies. These technologies, which first emerged during the 1960's, have impacted the computer industry monumentally. Today, they are the engine behind new ways of communicating, entertaining, and learning. With this course, we open the doors to those wishing to acquire these new skills that result in competitive advantages in the work environment of the 21st century.

COMPETENCIES

The course develops the following competencies in students:
- **Critical questioning**
- **Communication**

OBJECTIVES

After completion of the course, students will be able to:
1. Comprehend the importance of visual communication in the industry's development and its social impact.
2. Design graphic elements for different media outlets.
3. Understand color spaces for several types of graphics.
4. Separate image elements into layers.
5. Apply image and video editing techniques in the development of a digital image.
6. Understand timing and spacing techniques in animation.
7. Prepare images in sequence to create animation.

CONTENTS

I.   Visual Communication

     A. The Communication of Ideas through Digital Visual Media
     B. The Importance of an Image to Inform, Persuade, and Entertain.
II. Introduction to Digital Images: Computerized Graphics
     A. Historical Background
     B. The Digital Representation of Visual Information
     C. Introduction to Photoshop
       1. Interphase
       2. Use of layers
III. Image Manipulation
     A. Color Spaces (RGB, CMYK, Index Color)
     B. Composite Images and Special Effects
     C. Coloring Techniques
     D. Digital Video Formats
IV. Experimental Animation
     A. Development
     B. Keyframing
     C. Playback
     D. Digital Video Formats

METHODOLOGY
The following strategies from the active learning methodology are recommended:
- Challenge-based learning
- Collaborative learning
- Seminars
- Conferences
- Applied exercises
- Audiovisual demonstrations
- Presentations

EVALUATION

Participation	30%
Partial assignments	40%
Project or exam (Final evaluation)	20%
Oral presentations	10%
TOTAL	**100%**

LEARNING ASSESSMENT
The institutional assessment rubric is applied to the course's core activity.

BIBLIOGRAPHY
Faulkner, A. & Chavez, C. (2020). *Adobe Photoshop Classroom in a Book* (1st ed.).

     Adobe Press.

Lovadina, M., Rashev, D., Tkocz, M. & Wolf Strehle, J. (2018). *Digital Painting in Photoshop: Industry Techniques for Beginners: A comprehensive introduction to techniques and approaches*. 3dtotal Publishing.

Dabner, B. and Stewart, S. (2017). *Graphic Design School: A Foundation Course Graphic Designers Working in Print, Moving Image, and Digital Media.* Thames & Hudson Ltd.

Heller, S. and Vienne, V. (2015). *Becoming a Graphic and Digital Designer: A Guide to Careers in Design*, (5th ed.). John Wiley & Sons.

Osborn, K. (2015). *Cartoon Character Animation with Maya: Mastering the Art of Exaggerated Animation*. AVA Publishing.

Purves, B. (2015). *Stop-motion Animation: Frame by Frame Film-making with Puppets and Model*. Bloomsbury.

Keller, D. (2013). *Creating 2d Animation with the Adobe Creative Suite*. Delmar Cengage Learning
For more information resources related to the course's topics, access the library's webpage http://biblioteca.sagrado.edu/

REASONABLE ACCOMMODATION
For detailed information on the process and required documentation you should visit the corresponding office. To ensure equal conditions, in compliance with the ADA Act (1990) and the Rehabilitation Act (1973), as amended, any student in need of reasonable accommodation or special assistance must complete the process established by the Vice Presidency for Academic Affairs.

ACADEMIC HONESTY, FRAUD, AND PLAIGARISM
Any student who fails to comply with the Honesty, Fraud, and Plagiarism Policy is exposed to the following sanctions: receive a zero in the evaluation and/or repetition of the assignment, an F(*) in the course, suspension or expulsion as established in the *Política de Honestidad Académica* (DAEE 205-001) effective in August 2005.