



UNIVERSITI TEKNOLOGI MARA

GDI686: SCIENTIFIC ILLUSTRATION

Course Name (English)	SCIENTIFIC ILLUSTRATION APPROVED
Course Code	GDI686
MQF Credit	3
Course Description	This course is aimed to introduce students to a comprehensive and inspiration methodology in learning science based and architectural illustration. This includes establishing the foundation of drawing skills into gradually introduced to complex illustration concept and in-depth study in specific subject matter. The course covers the research of subjects and morphology. Fundamentals of scientific matter such as plant and vertebrate structure also are covered, along with plenty of life-drawing practice to capture gesture and movement in finished pieces. Students are encouraged to progress from merely pictorial to more descriptive, conceptual illustration projects. In addition, students allowed to study specific subject matter in greater depth through botanical, zoological using advanced graphic illustrations and collaborate with the science writers whom ever available.
Transferable Skills	Creative, imaginative and innovative-Ability to observe, structuring and curating illustrative skills style and techniques
Teaching Methodologies	Lectures, Studio, Demonstrations, Field Trip, Practical Classes, Tutorial, Discussion, Presentation
CLO	<p>CLO1 Explore and understanding various illustration techniques in the process from generating ideas from critical observation, visual interpretation and drawing skills techniques. (C2)</p> <p>CLO2 Incorporate the element of design and drawing style on the subject in composing, interpreting and improving thinking skills for science based (scientific and zoological) illustration (P3)</p> <p>CLO3 Develop and transform creative and expressionistic dimension of science and arts via illustration with detailed graphical information, digital and produce a scientific illustration project and exhibit (A3)</p>
Pre-Requisite Courses	No course recommendations
Topics	
1. • Lesson 01 – Introduction to Natural Science illustration (Week 1) 1.1) o Definition of science and art illustration. 1.2) o Study in creating accurate and dynamic scientific illustration. 1.3) o Discuss the contribution of graphic illustrators to science world.	
2. • Lesson 02 – Field Sketching (Week 2 - 3) 2.1) o Sharpens visual perception, drawing and design skills through extensive sketching process. 2.2) Introduction to morphology 2.3) o Field trips subject matters included: Forest, Ocean shore, Grassland, Other environments provides varied subject matter to draw.	
3. • Lesson 03 – Information Graphics (Week 4) 3.1) o Introduction to principles of graphic and illustration: 3.2) o The roots 3.3) o Theory 3.4) o Principles 3.5) o Current practices	
4. • Lesson 04 – Natural Science Illustration in Colour (Week 5 - 6) 4.1) o Examine and explore the mixed media. 4.2) o Emphasis on keen observational skills. 4.3) o Practise on design communication of accurate information through colour illustration.	

5. • Lesson 07 – Botanical Illustration (Week 7 - 9)

- 5.1) o Introduction to botany and application of illustration in creating botanical images.
- 5.2) o Basic study on plant morphology, dissection studies and plant environments.
- 5.3) o Subject matters suggested as reference:
- 5.4) o Herb-aria
- 5.5) o Live specimens
- 5.6) o Field drawings

6. • Lesson 08 – Zoological Illustration (Week 10 - 12)

- 6.1) o Explore the animal kingdom through selected taxonomic groups via discussion.
- 6.2) o Examine the drawing techniques for representing dimension, texture and detail of various type of animals.
- 6.3) o Produce several zoological illustrations based from discussions such as form and functions, animal behaviour or environmental catalogues.

7. Lesson 09 : Biological Illustration

- 7.1) Introduction to Biological Illustration

8. • Lesson 10 – Applied Techniques in Natural Science Illustration (Week 13-14)

- 8.1) o Preparation of artwork for display:
- 8.2) ? Integration of images with text.
- 8.3) ? Book and exhibit sizes for exhibit.
- 8.4) o Emphasis on conceptual illustration:
- 8.5) ? How to convey an idea, process, sequence of events, multi topics through visual and presentation means.

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Students requires to collect, observe, study, analyze and visually illustrate multitude species natural science while adding accurate and dynamic scientific illustration.	30%	CLO1
	Assignment	Student requires to incorporate various element of design in detailing, structuring and compositing various selected botanical and zoological taxonomic dimension, texture and details of selected subject.	30%	CLO2
	Final Project	Final project and exhibition that emphasis on idea development, styles, concept, research, accurate drawing skills and techniques and execution of project for review and critiques. Students requires to organize, print and digitized artwork for assessment requirement.	40%	CLO3

Reading List	Recommended Text
	<ul style="list-style-type: none"> • Huxley, Robert 2007, <i>The Great Naturalists</i>, Thames & Hudson • Paul J. Zelanski Professor Emeritus, Mary Pat Fisher 2010, <i>The Art of Seeing</i>, 8th Edition Ed., Pearson • Timothy O'Donnell 2011, <i>Sketchbook: Conceptual Drawings from the World's Most Influential Designers</i>, Rockport Publishers • Christopher Hart 2008, <i>The Cartoonist's Big Book of Drawing Animals</i>, Watson-Guption • David Boys 2003, <i>Draw and Sketch Animals: Sketch with Confidence in 6 Steps or Less</i>, North Light Books • Brian Curtis 2009, <i>Drawing from Observation: An Introduction to Perceptual Drawing</i>, McGraw-Hill Humanities • Kay Gallwey 1995, <i>An Introduction to Drawing Animals: Anatomy, Movement, Perspective, Character, Composition</i>, Book Sales • Giovanni Civardi 2002, <i>Drawing Scenery: Landscapes, Seascapes and Buildings (The Art of Drawing)</i>, Search Press • Bente Starcke King 2004, <i>Beautiful Botanicals</i>, North Light Books • Stevens, Margaret 2005, <i>The Art of Botanical Painting</i>, The Art of Botanical Painting • Rosie Martin, Meriel Thurstan 2008, <i>Botanical Illustration Course: With the Eden Project</i>, Batsford • Samara, Timothy 2012, <i>Drawing for Graphic Design</i>, Rockport Publishers

Article/Paper List	Recommended Article/Paper Resources
	<ul style="list-style-type: none"> • Michael R. Canfield (Editor), George B. Schaller, Bernd Heinrich, Kenn Kaufman, Anna K. Behrensmeyer, Karen L. Kramer, Jennifer Keller, James Reveal, Piotr Naskrecki, John D. Perrine, James L. Patton, Jonathan Kingdon, Erick Greene, Edward O. Wilson 2011, <i>Field Notes on Science & Nature</i>

Other References
This Course does not have any other resources