Module Title:	Computer Graphics
Module ID:	ARED 412
Prerequisite:	None
Level:	7
Credit Hours:	2 (1+2+0)

Module Description:

The aim of this course is to allow students to acquire knowledge of understanding Computer Graphics Systems, specifically: The fundamental display algorithms for raster graphics systems, the mathematical nature of 2-D and 3-D environments and the properties of surfaces and their simulation.

Module Aims:

The aim of this course is to allow students to acquire knowledge of understanding Computer Graphics Systems.

Learning Outcomes:

- Understand the foundations of computer graphics: hardware systems, math basis, light and color, OPENGL Libraries, Transmissions and Rendering in Computer Graphics.
- Acknowledge the Applications of the Computer Graphics.
- Identify the functions common to all Computer Graphics

- Define the basic Computer Graphics components and understand to draw shapes and objects
- The ability to drawing geometric in Computer Graphics, ability to communicate and to discuss related topics of the course with instructor inside and outside class
- Communicate technical information effectively.
- Perform research and encourage performing teamwork activity
- Acquaintance of using computer software related to the course and preparing reports to improves their communication skills sing the internet to search for related topics.

List of Topics	No. of Weeks	Contact Hours
Introduction to Computer Graphics	2	6
Graphics system	2	6
2D Graphics Algorithm	2	6
3D Object Modeling	2	6
Introduction to OPENGL	1	3
OpenGL Programming Guide	1	3
3D Transformations	2	6
Rendering	1	3
Tutorial on OpenGL	1	3
Review	1	3

Textbook:

D. Hearn, M. P. Baker, "Computer Graphics with OpenGL", 3rd Ed., Prentice Hall, 2003, ISBN 0130153907.