

# Figure and Image Processing

Syllabus Number

PIP-201

Elective

2 credit

MORI, Kaku

## 1. Course Description

Computer graphics (CG) refers to images and videos that have been created and processed using computers and graphics peripheral devices.

However, since the 1990s, computer performance and cost performance have improved dramatically, and computer graphics are now used in a wide variety of fields, and the types and applications are extremely diverse.

As a result, computer graphics are used not only as a tool for academic research, architecture, industrial design, and other academic and industrial fields, but also for illustration, photography, comics, animation, TV programs, movies, games, virtual reality, and other entertainment content.

While such advanced technology exists, computer graphics technology has also permeated our daily lives, and graphics software has been developed that allows even children to easily create CG and animation.

Thanks to the benefits of such technology, we now live in an age where anyone can prepare graphics for presentation materials, create materials for websites, process digital images taken with a camera, and edit videos with the ease of a professional.

However, this situation regarding computer graphics means that not only science majors but also liberal arts university graduates are now required to have the ability to process graphics and images.

In this course, students will learn the basics of graphic and image processing and the different types of graphic software. Using software that can be downloaded free of charge, students will learn the functions and roles of digital media necessary for production and the basic know-how necessary for computer graphics production and processing in a hands-on format.

By doing so, we aim to cultivate human resources who can create contents with digital tools on their own, based on basic knowledge of digital image processing across the humanities and sciences.