Week	Topic	Content	Activities	Assignment	Remark/Resources
1	1. Subject Introduction	▪ Introduction of the teaching syllabus ▪ Subject regulations ▪ Subject related activities	-	-	▪ Presentation file ▪ Students learning file
	2. 3D Computer Graphic (1)	▪ Concept of constructing 3D computer graphic ▪ Introduction to <Sketchup 8> ▪ Basic 2-D drawing tools ▪ Editing tools ▪ Web-resources	▪ Drawing practise	▪ 2-D graphic exercises	▪ Worksheet ▪ Web-resources
2	3D Computer Graphic (2)	▪ From 2-D to 3-D a. Projection and subtraction b. Revolution c. Shells d. Fillets of corners	▪ Drawing practise	▪ 3-D graphic exercises	▪ Worksheet
3	3D Computer Graphic (3)	▪ Interception of components ▪ Apply textures	▪ Drawing practise	▪ 3-D robot design	▪ Worksheet
4	3D Computer Graphic (4)	▪ 3-D animation ▪ Editing and producing video file	▪ Design practise	▪ 3-D robot animation	▪ Worksheet
5	3D Computer Graphic (5)	▪ Virtual reality and computer control method ▪ Use of <Sketch Physics> a. Linear motions b. Rotary motions c. Different types of joints	▪ Design practise	-	▪ Worksheet ▪ Web-resources

Week	Topic	Content	Activities	Assignment	Remark/Resources
6	3D Computer Graphic (6)	▪ Virtual Robot design ▪ Introduction to design project	▪ Design practise	▪ Design project	
7	Robot Design (1)	▪ Mechanical structure and Principles a. Linkages b. Lever ▪ Six-legs robot assembling	▪ Experiments ▪ Workshop Realization	▪ Robot outlook design ▪ Design folio	▪ Learning kits
8	Robot Design (2)	▪ Connection of electronic components ▪ Basic craftsmanship ▪ Production of the mechanical body	▪ Workshop Realization	▪ Assembled model	▪ Worksheet ▪ Electronic components
9	Robot Design (3)	▪ Production of the mechanical body ▪ Outlook Design and Production	▪ Workshop Realization ▪ Experiments		▪ Worksheet ▪ Wired control components
10	Robot Design (4)	▪ Production of the mechanical body ▪ Outlook Design and Production	▪ Workshop Realization	▪ Mechanical base	▪ Worksheet ▪ Wireless control components
11	Robot Design (5)	▪ Wired control connection	▪ Experiments ▪ Workshop Realization	▪ Outlook design	▪ Worksheet ▪ Computer controlled components
12	Robot Design (6)	▪ Wireless Controlled robot ▪ Realization of design project	▪ Workshop Realization		
13	Robot Design (7)	▪ Realization of design project	▪ Workshop Realization	▪ Final solution	-
14	Competition	▪ Class Competition ▪ Self-evaluation ▪ Course evaluation	▪ Competition	▪ Self-evaluation	▪ Self-evaluation form