ADVANCED SOFTWARE TECHNIQUES FOR 3D PRINTING FOR CLINICIANS

COURSE PROGRAMME (15 June 2024, 2/F HKAM Building)

Time	Topic	Speaker
09:00	Registration and Introduction	Dennis Yee
09:15	Overview of 3D Planning and Printing in Bone and Joint Surgery	Christian Fang
09:30	Case Studies	Dennis Yee / Jane Pu
09:45	Introduction to Software (Freeware and Paid)	Jeffrey Wong
10:00	Basic Workship - Freeware Segmentation - Thresholding, Image Filters and Kernels	Isaac Ko
10:15	Segmentation - Manual Labelling and Island Commands	Dennis Yee
10:30	Segmentation - Defect Filling and Artefact removal	Christian Fang
10:45	Segmentation - 3D Surface Modelling and STL format	Christian Fang
11:00	Break	
11:15	Segmentation - Paid software - Thresholding / Filters	Colin Yung
11:30	Segmentation - Region Grow / Split Mask / Smart Fill	Raymond Yau
11:45	Segmentation – Multi-slice Edit / 3D Interpolate / Boolean operations	Raymond Yau
12:00	Segmentation - Surface Modelling	Colin Yung
12:15	Q&A	
12:30	Proficiency Challenge and Grouping for PM Session	Christian Fang
12:45	Lunch	
13:45	Advanced Workshop (Proficient Group + Observer Group) - Introduction	Elvis Chui
14:00	Freeware - 3D Surface Model / Mirror / Alignment	Elvis Chui
14:15	Freeware - Cutting and Trimming	Elvis Chui
14:30	Freeware - Surface Jig Creation and Drop in Objects	Christian Fang
14:45	Freeware - Osteotomy Planning Workflow - Planning	Christian Fang
15:00	Freeware - Osteotomy Cut and Screw Placement	Christian Fang
15:15	Q&A	
15:30	Break	
15:45	3 Matics - Model Manipulation / Wrap	Jane Pu
16:00	3 Matics - Boolean Procedures and Trimming	Jane Pu
16:15	Hybrid Workflow - From CT to Jig - RSR Guides / Heart model	Christian Fang
16:45	Safety Considerations	Isaac Ko
17:00	Wrap-up and Evaluation	Dennis Yee