

Course Title/Code:	Laboratory Methods and Instrumentation (MMPH6001)
Department:	Pathology
Objective:	To provide students with the basic understanding of the principles and latest developments in the practical applications of a broad range of techniques commonly employed in medical research projects.
Content:	1. Immunohistochemistry 2. Advance immunofluorescent technologies in molecular study 3. Flow cytometry: principle and applications 4. Protein analysis methods 5. Conventional and molecular cytogenetics 6. Automated DNA sequencing and genotyping 7. Mutation detection technologies 8. Epigenetics and methylation analysis 9. Cancer stem cells: methods and protocols 10. Animal models for research
Learning outcomes:	On completion of the course, the students are expected to: • understand the basic principles and the practical applications of a broad range of basic techniques routinely employed in medical research projects and the possible application in their own research projects • demonstrate their ability to self-study and write an essay • demonstrate their ability to make power point presentation on the essay topic
Prerequisite:	None
Duration:	24 contact hours
Assessment:	In-course assessment (40%) and Final examination (60%)
Remarks:	Also offered to RPg from other Faculties at HKU