REGULATIONS FOR THE DEGREE OF MASTER OF MEDICAL SCIENCES (MMedSc)

(*See also General Regulations*)

Any publication based on work approved for a higher degree should contain a reference to the effect that the work was submitted to the University of Hong Kong for the award of the degree.

M.18 Admission requirements

To be eligible for admission to the programme leading to the degree of Master of Medical Sciences, a candidate shall:

(a) comply with the General Regulations;

(b) hold a Bachelor's degree with honours or the degrees of MBBS of this University, or another qualification of equivalent standard from this University or from another University or comparable institution accepted for this purpose; and

(c) satisfy the examiners in a qualifying examination if required.

M.19 Qualifying examination

(a) A qualifying examination may be set to test the candidate's formal academic ability or his /her ability to follow the courses of study prescribed. It shall consist of one or more written papers or their equivalent and may include a project report.

(b) A candidate who is required to satisfy the examiners in a qualifying examination shall not be permitted to register until he/she has satisfied the examiners in the examination.

M.20 Award of degree

To be eligible for the award of the degree of Master of Medical Sciences a candidate shall

(a) comply with the General Regulations; and

(b) complete the curriculum and satisfy the examiners in accordance with the regulations set out below.

M.21 Length of curriculum

The curriculum shall normally extend over one academic year of full-time study, or two academic years of part-time study, with a minimum of 400 hours of prescribed work.

M.22 Completion of curriculum

To complete the curriculum, a candidate shall

(a) follow courses of instruction as prescribed in the syllabuses and complete satisfactorily all required written, practical and/or clinical work;

(b) satisfy the examiners in the modules by continuous assessments and/or by written examinations; and

(c) complete and present a satisfactory dissertation on an approved research project.

The examiners may also prescribe an oral examination.

M.23 Title of dissertation

The title of the dissertation shall be submitted for approval before the end of the second semester of the final academic year, and the dissertation shall be presented not later than the end of the final academic year. The candidate shall submit a statement that the dissertation represents his/her own work (or in the case of conjoint work, a statement countersigned by his/her co-worker, which shows his/her share of the work) undertaken after registration as a candidate for the degree. The examiners may also prescribe an oral or a written examination on the subject of the dissertation.

M.24 Examinations

(a) A candidate who has failed to satisfy the examiners in the written paper but has presented a satisfactory dissertation and has satisfactorily completed the prescribed written and practical work may be permitted to undertake a further period of study in the course of failure and to be re-examined by a specified date not less than one month after the publication of results.

(b) A candidate who has presented an unsatisfactory dissertation but has satisfied the examiners in the written paper and has satisfactorily completed the prescribed written and practical work, may be permitted to revise the dissertation and to re-present it within a specified period of not more than four months after receipt of a notice that it is unsatisfactory.

M.25

A candidate

(a) who has failed to satisfy the examiners in the written paper and has presented an unsatisfactory dissertation; or

(b) who has failed to satisfy the examiners in a second attempt in the written paper or his/her dissertation

shall be recommended for discontinuation of studies under the provisions of General Regulation G12.

M.26 Examination results

At the conclusion of the examinations a pass list shall be published. A candidate who has shown exceptional merit in all examinations may be awarded a mark of distinction which shall be recorded in the candidate's transcript.

SYLLABUS FOR THE MASTER OF MEDICAL SCIENCES PROGRAMME

A. INDUCTION COURSE

All candidates will be required to attend the induction course (7.5 hours):

MMSC6001 ***Dissertation Writing***

Aims

- To raise students' awareness of essential aspects of academic writing that contribute to the overall communicative success of a dissertation.
- To enable students to approach their writing with confidence and apply skills at key stages of their research process.

Contents

- Citing research
- Communicative success in reporting research
- Features of scientific research language
- Publication styles
- Reviewing the literature
- Structure of dissertations: The IMRaD formula
- The discussion section: Making claims
- The introduction: Stating the research gap
- Writer's stance

B. CORE MODULES

Candidates will be required to take **four** modules (20 hours each) from the following core modules. **At least one module** should be selected **from either of the two main sections**, **viz. Research Methods and Biological Systems**.

I. RESEARCH METHODS

BIOC6100 ***Practical Bioinformatics***
(Candidates choosing this Core Module should have molecular biology background.)

Aims

- To introduce popular bioinformatic databases, web servers and softwares for protein and genomic analysis.
- To introduce pairwise sequence alignment methods (dot plots, local and global alignment).
- To introduce database search methods (BLAST, PFAM, PROSITE).
- To explain multiple sequence alignment and phylogenetics.
- To introduce substitution matrices (PAM and BLASUM).
- To equip students with critical thinking, analysing and presentation skills.
- To introduce methods for gene prediction.

Contents

- Biological databases
- Gene prediction
- Information retrieval: entrez and SRS
- Introduction - Essential concepts on gene structure and sequence, protein structure and function
- Multiple sequence alignment
- Pair-wise sequence alignment I: dot plot
- Pair-wise sequence alignment II: dynamic programming
- Phylogenetic prediction
- Sequence database searches: BLAST, FASTA
- Substitution matrices

CMED6100 ***Introduction to Biostatistics***

Aims

- To introduce the topics in inferential biostatistics, including regression, confidence intervals and hypothesis tests.

Contents

- Analysis of survival data
- Applied regression
- Designing studies
- Exploratory data analysis
- Hypothesis tests
- Probability
- Regression and correlation
- Statistical inference
- Statistics in practice

CMED6200 ***Epidemiology and Critical Appraisal***

Aims

- To initiate students into the fundamentals of epidemiological concepts.
- To introduce common epidemiological study designs.
- To equip students with critical appraisal skills.

Contents

- Basic epidemiologic concepts 1
- Basic epidemiologic concepts 2
- Basic epidemiologic concepts 3
- Cohort study and case-control study
- Cross-sectional study
- Ecological study
- Meta-analysis and critical appraisal of literature
- Randomised controlled trial and interventional study
- Screening
- Vital statistics and sources of information

CMED6400 ***Evidence Based Practice: An Introduction to Clinical Epidemiology and Decision Analysis***

Aims

To introduce the principles of evidence-based practice (EBP):

- strategies to ask a research question
- tools to acquire evidence
- skills to appraise the validity and reliability of the evidence
- use of valid and reliable evidence in the realistic clinical setting

Contents

- Don't Panic: Basic statistics you can understand and need to read secondary information synopses. Using "Medical Poetry": Is it possible to both improve health care quality and reduce costs at the same time? Evaluating "Foraging Tools" for keeping up with new relevant and valid information. Is it True? Evaluating research about diagnostic tests. Taking the right STEPS to avoid fallacies of decision making. Is it True? Evaluating research about prognosis (Part 1)
- Information Mastery: A practical approach to EBM for clinicians and managers
- Is it True? Evaluating research about prognosis (Part 2) Evaluating conventional information sources: Consultants, CME, and reviews Is it True? Evaluating medical reviews. Is it True? Evaluating practice guidelines Obtaining useful

information from secondary sources. Using clinical decision tools Is the best evidence getting into clinical practice? The case of type 2 diabetes Hints and tips for practicing and teaching EBM via IM Clinical Jazz Revisited
- Is it True? Evaluating research about Therapy. Clinical jazz: Harmonizing Clinical Experience and EBM

PATH6100 ***Laboratory Methods and Instrumentation***

Aims

- 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.

Contents

- Basic concepts in automated DNA sequencing and genotyping
- Basic concepts in conventional and molecular cytogenetics
- Cancer stem cells: methods and protocols
- Epigenetics and methylation analysis
- Mutation detection technologies
- Principle and applications of flow cytometry
- Protein analysis methods
- Study of tissue morphology-ultrastructural and confocal microscopy
- Tissue processing and immunohistochemistry
- Tumor xenograft mice models

SURG6910 ***Laboratory Animal Handling and Surgical Techniques***

Aims

- To introduce the various approaches in the generation and applications of various animal models for medical research.
- To introduce the safety/ethics legislation in the use of animal for medical research.
- To introduce surgical techniques for small and big animals.

Contents

- Animal models for human diseases
- Animal surgical techniques: Demonstration of laparoscopic surgery
- Audio-visual instruction on animal handling techniques
- Cancer models
- Common laboratory animal species in the Laboratory Animal Unit
- Drug/radiation induced animal disease models
- Ethics in using laboratory animals
- Genetically modified (GM) animal disease models
- Transplantation immunology
- Transplantation models
- University & Government regulations governing the use of animals for experimental purposes

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II. BIOLOGICAL SYSTEMS

BIOC6200 ***Genes and Gene Functions***

Aims

- To introduce methods in determining genetic factors of human disorders.
- To provide molecular explanations for the pathological processes of some common human genetic disorders.
- To provide fundamental knowledge in human genome analyses and the approaches for functional genomics.
- To introduce the latest advance in the understanding of tumorigenesis and aging.

Contents

- Chromatin & Chromosome
- Gene function analysis: model organisms and transgenic animals
- Molecular basis of genetic disease
- Molecular mechanisms of ageing
- Oncogenes and tumour suppressor genes
- Pedigree and gene linkage analyses
- Protein dysfunction and disease
- Reverse genetics and cloning of human disease genes: the cystic fibrosis gene
- Single nucleotide polymorphism (SNP)
- The human genome project and bioinformatics: functional genomics

BIOC6400 ***Working with Genes and Proteins***

Aims

- To introduce cytogenetic technology and how it is applied for disease analysis.
- To introduce techniques used to prepare nucleic acid samples: labelling nucleic acids with radioactive and non-radioactive approaches.
- To introduce DNA sequencing techniques used for genome sequencing and genomic analysis.
- To introduce the approaches to analyse gene expression.
- To introduce the techniques for characterize proteins and proteome, protein-protein interactions.
- To introduce the strategy and techniques for the manipulation of large DNA fragment, and genomes.

Contents

- Advancement in cytogenetic technology
- Chemical modification of proteins
- Cytogenetic analysis of diseases
- DNA sequencing technologies
- Gene expression analysis I
- Gene expression analysis II
- Gene therapy: bioethics of molecular medicine
- Manipulation of large DNA fragment, large scale manipulation of genomes
- Physical characterization of proteins
- Preparation of nucleic acid samples: labelling nucleic acids: radioactive and non-radioactive approaches
- Protein-protein interaction
- Proteomics - Protein structure & function

CMED6600 ***Biological Basis of Common Health Problems***
(not for students with Medical/Dental background)

Aims

- To introduce the biology, epidemiology, pathophysiology and clinical features of common diseases including cancer, diseases of the cardiovascular, respiratory, gastrointestinal, neurological, musculoskeletal and reproductive systems, infectious and psychiatric diseases.

Contents

- Addiction as a Chronic Disease
- Cancer (breast, colon, lung, liver and NPC)
- Common Chronic Diseases I – Diabetes, Obesity, Kidney Disease
- Common Chronic Diseases II - Hypertension, Cardiovascular diseases and Stroke
- Degenerative and auto-immune rheumatic diseases (osteoarthritis, lupus, rheumatoid arthritis)
- Global burden of disease
- Infectious diseases (Control and surveillance)

- Introduction to genetics and genetic diseases (Down's syndrome, Thalasseamia, G6PD) and Screening
- Introduction to pathology
- Introduction to physiology I
- Introduction to physiology II

MEDI6500 ***Cell Metabolism***

Aims

- To introduce key catabolic and anabolic pathways in cellular metabolism.
- To introduce latest concept on metabolic regulation and integration in mammals.
- To discuss application of proteomics and metabolomics in metabolic research.
- To introduce metabolic adaptations to nutritional and environmental changes.
- To examine the metabolic basis of human diseases.

Contents

- Application of proteomics and metabolomics in metabolic research
- Cellular machinery for energy metabolism
- Control of cellular metabolism by circadian clock
- Hormonal integration of metabolism in mammals
- Major catabolic and anabolic pathways in cellular metabolism
- Metabolic adaptations to fasting/starvation and environmental changes
- Metabolic basis of major human diseases
- Metabolic regulation by posttranslational modifications

PATH6300 ***General Cytopathology***

Aims

- To equip students to meet the increased demand on the service of clinical cytology in Hong Kong.

Contents

- Clinical relevance of cytology consultation reports – implications on management
- Collection of cell samples and laboratory processing of cytology specimens
- Ethical and legal aspects of clinical cytopathology
- How to diagnose malignancy in gynaecological cytology specimens
- How to diagnose malignancy in non-gynaecological exfoliated cytology and fine needle aspiration specimens
- Organization of a cytopathology laboratory
- Practical workshop on fine needle aspiration cytopathology
- Practical workshop on gynaecological cytopathology
- Practical workshop on non-gynaecological exfoliated cytopathology
- Quality assurance program and laboratory accreditation
- Recent advances in cytopathology

PHAR6100 ***Principles of Drug Action***

Aims

- To introduce drug pharmacokinetics, drug interaction, drug-receptor interaction, drug allergy and drug resistance.
- To introduce the adverse effects of drugs and drug dependence.

Contents

- Adverse effects of drugs
- Drug allergy and drug resistance
- Drug dependence
- Drug interaction
- Drug pharmacokinetics
- Drug-receptor interaction
- Pharmacogenetics and pharmacogenomics

PHYO6100 ***Cell Biology***

Aims

- To equip students with a general knowledge of cell biology.
- To enable students to become familiar with leading edge research in cell biology.
- To provide students with research philosophy in cell biology.

Contents

- Biology of tumour cells
- Cell cycle
- Cell death and regulation of cell survival
- Cellular interaction and immune response
- Cellular stress response
- Neural regeneration
- Neurotrophic factors
- Signal transduction I
- Signal transduction II
- Structure and function of cells

PHYO6200 ***Concepts of Human Physiology***

Aims

- To equip students with a general knowledge of human physiology.
- To enable students to appreciate how human body maintains homeostasis.

Contents

- Exercise physiology
- Gastrointestinal physiology and nutrition
- Hypoxia physiology
- Membrane electrophysiology
- Physiology of hormones
- Physiology of the blood
- Physiology of the heart
- Renal Physiology
- Respiratory physiology
- Sensation and perception

C. SPECIALISED MODULES

In addition, each candidate will be required to choose one specialised field of study.

A total of **six** modules (i.e. total module values = 6) should be selected. At least four must be taken in the chosen specialised field of study; the remaining two can be taken in another related field.

DEPARTMENT OF ANATOMY

ANAT6100 ***Current Topics in Morphological Sciences, Cell Biology and Neuroscience***

Aims

- To introduce cell biology and neuroscience.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Animal models of neurodegenerative disorders
1	Basic molecular biology techniques for medical students
1	Biological mechanisms of neurodegenerative diseases
1	Cancer metastasis
1	Control of cell proliferation and apoptosis
1	Current topics in neuroimmunology
1	Growth factors in cancer
1	Neurobiology
1	Neuroprotection in glaucoma
1	Neurotrophic factors in health and disease
1	Non-alcoholic fatty liver disease
1	Preventive medicine in neurodegeneration
1	Stem cells

DEPARTMENT OF BIOCHEMISTRY

BIOC6300 ***Biochemistry and Molecular Biology***

Aims

- To introduce laboratory techniques of biochemistry and molecular biology.
- To enable students to carry out research independently using the skills acquired in the research project.
- To provide training to students to work as a team with other scientists and gain insight into the field of research.
- To provide training to students so that they can critically analyse scientific papers and design experiments to verify scientific theories.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
2	Advanced biochemistry: Signal transduction, biomodulators, enzyme kinetics, catalytic mechanisms, protein chemistry, post-translational modification of proteins
2	Biochemistry seminar: Present and attend seminars, criticise, think, write and talk about biochemical issues, organise mini-conferences, technical reviews, research proposals, communication skills, personal and career development
2	Molecular biology of the gene: Eukaryotic gene regulation, control of gene expression, transcription factors, DNA-protein interaction
2	Practical bioinformatics: (*Advice to Applications: candidates choosing this Specialised Module should have molecular biology background.*) Gene indentification Information searching and retrieval: Entrez and SRS Internet resources: DNA and protein sequence databases Patterns, Motifs, and Profiles analysis Phylogenetic analysis Sequence alignment: multiple sequence alignment

Sequence database searching: FASTA, BLAST, Smith-Waterman, algorithm and parameters
Simple sequence analysis

BIOC6500 ***Bioinformatics and Systems Biology***

Aims

- To introduce basic programming and statistical skills and basic concepts in data structure and algorithms.
- To introduce the state-of-the-art high throughput genomic technologies, bioinformatics methods and tools used to analyse these data.
- To introduce basic concepts in computational analysis of protein sequences, structure and functions, experimental methods for protein structure determination, methods for protein structure prediction and function annotations.
- To introduce sequence analysis and other web-based analysis tools, concepts in the search and retrieval of sequence information from biological databases and their analyses.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
2	Biocomputing
2	Genomics and systems biology
2	Protein bioinformatics
2	Practical bioinformatics (*Advice to Applications: candidates choosing this Specialised Module should have molecular biology background.*)

DEPARTMENT OF DIAGNOSTIC RADIOLOGY AND CLINICAL ONCOLOGY

DRAD6201 ***Clinical Physics in Radiation Oncology and Medical Imaging***

Aims

- To educate and prepare students for professional and/or research career development in different areas related to medical physics.
- To provide students with professional knowledge about the clinical physics in oncology and radiology and its medical application.
- To introduce the rationale and principle of physics in radiotherapy and medical imaging.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Basic radiological physics and dosimetry
1	Brachytherapy physics
1	Health physics with focuses on radiological protection in medical sectors
1	Molecular imaging and medical cyclotron
1	Nuclear medicine sciences
1	Physics in medical imaging
1	Principles and practice of radiotherapy physics
1	Quality assurance (QA) in radiation therapy and medical imaging
1	Use of computer in medical imaging

DEPARTMENT OF MEDICINE

MEDI6100 ***Introduction to Stem Cells***

Aims

- To introduce the current concepts and controversies on embryonic, adult and cancer stem cells.
- To introduce the potential applications of stem cells in disease modelling and regenerative medicine.

Contents

Module Value	Modules
1	An introduction to stem cells
1	Adult stem cells
1	Cancer stem cells
1	Embryonic stem cells
1	Haematopoietic stem cells (HSC) and clinical applications
1	Stem Cells and their niches

MEDI6300 ***Geriatric Medicine***

Aims

- To introduce the physiology of ageing and the impact of the ageing demography.
- To provide students with the clinical knowledge and experience on common geriatric syndromes and diseases, as well as the principles of geriatric management.

Contents

Module Value	Modules
2	Common diseases and impairments in the elderly: Appropriate drug prescribing Chronic medical diseases and management Impairment, disability, handicap and rehabilitation
1	General principles in ageing and geriatric medicine: Current concepts in ageing and healthy ageing Ethical and medico-legal issues Geriatric assessment
2	Geriatric syndromes: Evaluation and interventions on syndromes: falls, incontinence, malnutrition and dysphagia, pressure ulcers, dementia
1	Health and long term care for the elderly: Organisation and service delivery models Principles and values

MEDI6600 ***Metabolic Medicine***

Aims

- To help students to develop skills and critical thinking for both basic and clinical research on metabolic diseases.
- To provide students an updated knowledge in major metabolic diseases, including obesity, diabetes, cardio-metabolic syndrome, cancer and other ageing-related disorders.
- To introduce current and future treatment and prevention of major metabolic disorders.

Contents

Module Value	Modules
2	Current therapeutic strategies for metabolic diseases: • Current drugs for obesity, diabetes, diabetic complications and lipid disorders • Functional food, nutraceuticals and traditional herbals for treatment of metabolic disorders • Life style modifications (calorie restriction, exercise and balanced diet etc) in the prevention of metabolic disorders • Metabolic disease drug discovery: from bench to bed
2	Current topics in energy balance and obesity: • Adipose tissue dysfunction and obesity • Brown adipose tissue: a weapon against obesity • Control of energy balance by the gut-brain-liver axis • Latest concepts on energy intake and energy expenditure • Modern technologies for obesity research • White adipose tissue as an energy storage organ and secretory gland
2	Recent advances in metabolic disorders: • Calcium metabolism and osteoporosis • Cancer as a metabolic disease • Genetically inherited metabolic disease • Lipid abnormality, inflammation and atherosclerotic diseases • Metabolic changes in autoimmune diseases • Metabolic derangement in ageing • Metabolic dysregulation and different types of diabetes • Mitochondrial disorders

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DEPARTMENT OF MICROBIOLOGY

MICR6100 ***Medical Microbiology***

Aims

- To improve and sustain a high standard in laboratory practices and management and enhance development in clinical microbiology laboratories in Hong Kong.
- To enhance training in other laboratory science and provide continuous education for technicians, scientists, or other health care workers on medical microbiology and infectious diseases.
- To provide structured training to enable postgraduates to embark on specialized research, clinical service or teaching for career and personal development.
- To provide training on current laboratory methods and practices and recent advances related to epidemiology, conventional and molecular diagnostics in medical microbiology and infectious disease, infection control and antimicrobial resistance.
- To provide practical and research experience in medical microbiology and infectious disease.

Contents

Module Value	Modules
1	Biosafety and handling of infectious waste: Safety management, good work practices, biosafety levels, laboratory acquired infections, transportation of infectious substances/diagnostic specimens and infectious waste management

1	Conventional and molecular techniques in detection and typing of microbial agents: Recent advances in microbial identification techniques and approaches
1	Emerging antimicrobial resistance and antimicrobial chemotherapy: New and old antibiotics; mechanism of antimicrobial actions; antibiotic resistance epidemiology; traditional method for detection of resistance and recent advances
1	Infection control and hospital epidemiology: Hand hygiene, standard precautions, outbreak investigation, and infection control issues
1	Laboratory and clinical interphase in infectious diseases: Specimen priority, specimen rejection criteria, cost containment, quality assurance, quality control and automation in a medical microbiology laboratory
1	Virological diagnosis of infectious diseases: Basic methods in virology, clinical applications, rapid tests and biosafety; emerging viral infections: their diagnosis and control

MICR6200 ***Infectious Diseases***

Aims

- To improve and sustain a high standard in the management, control, and prevention of infectious diseases in Hong Kong and nearby regions by providing structured training in all aspects of infectious diseases.
- To give special emphasis to clinical management, use of the diagnostic laboratory, as well as the control and prevention of infections in hospitals and the community.
- To enhance training in other medical and surgical specialties, supplement current training of clinical microbiologists, provide continuous medical education for practising clinicians, and familiarize other health care workers with infectious diseases in their many facets.

Contents

(The following modules are available to medical graduates only.)

Module Value	Modules
1	Common problems in infectious diseases
1	Infection in immunocompromised hosts
1	Infectious disease emergencies, indwelling device and surgical infections
1	Infectious disease update and emerging infections
1	Radiology, and radionuclide imaging in ID. genitourinary medicine and HIV problems
1	Surprises in daily medical practice: tropical diseases in the developed world

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DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

OBGY6200 ***Assisted Reproduction Technology (Laboratory)***

Aims

- To introduce the scientific basis of assisted reproductive technology.
- To introduce the basic skills in handling gametes and embryos.

Contents

Module Value	Modules
0.7	Embryo culture
0.5	Fertilization
0.9	Gamete and embryo cryopreservation
2.5	Management of assisted reproduction laboratory
0.5	Reproductive physiology, assessment and principles of management of patients with subfertility
0.9	Semen analysis and assessment of sperm function

OBGY6600 ***Genetic Counselling***

Aims

- To provide students from clinical and laboratory background with a foundation in the growing field of genetic counseling.
- To help students to determine when to suspect hereditary/genetic conditions and recognize the more common inherited conditions in different clinical settings.
- To provide the theoretical foundation to students for the practice of genetic counselling and the role of genetic services in the health care delivery system.

Contents

Module Value	Modules
1	Clinical application of genetic, cytogenetic & biochemical analyses in genetic diagnosis and screening
2	Genetics in medicine
1	Principles of genetic counselling
1	Public health genomics
1	Risk calculation and effective communication in genetic counselling

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DEPARTMENT OF ORTHOPAEDICS AND TRAUMATOLOGY

OSUR6100 ***Hand Surgery***

Aims

- To provide further study opportunity to students who are medical graduates or allied health graduates who work in the field of hand surgery.
- To provide opportunities for in-depth study on various aspects of hand surgery and hand rehabilitation.
- To provide training and platform to carry out basic or clinical research for students to write up a dissertation or scientific papers.
- To enhance the practice of the students and improve the standard of care.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Applied anatomy and physiology of the hand
1.5	Laboratory techniques with skin flaps
1.5	Rehabilitation of function after hand injury
2	Study of clinical problems
1.5	Tendon repairs/transfer nerve repairs fracture

OSUR6200 ***Spine Surgery***

Aims

- To provide students with an in-depth study on spinal disorders and spine surgery.

Contents

Module Value	Modules
1	Biomechanics and assessment of patients with back problems
2	Intraoperative spinal cord monitoring
2	Laboratory techniques: approaches to the spine, anterior instrumentation, posterior instrumentation
1	Spinal rehabilitation

OSUR6300 ***Joint Replacement Surgery***

Aims

- To provide students with up-to-date knowledge, to describe basic science in joint replacement surgery, and to share practical tips in management of arthritic conditions.
- To provide training and platform to carry out basic or clinical research for students to write up a dissertation or scientific papers.
- To enhance the practice of the students and improve the standard of care.

Contents

Module Value	Modules
1	Applied anatomy and biomechanics of the hip and knee
1	Biomaterials in joint replacement
1	Operative surgery
1	Quality of life assessment
1	Study of clinical problems
1	Surgical management of chronic arthritis

OSUR6400 ***Foot and Ankle Surgery***

Aims

- To provide further study opportunity for students who are medical graduates or allied health graduates who work in this field.
- To provide in-depth study on various aspects of Foot and Ankle surgery.
- To provide opportunity and platform to carry out basic or clinical research for students to write up a dissertation or scientific paper.

Contents

Module Value	Modules
2	Diabetic foot problems
1	Foot and ankle biomechanics
1	Foot deformities and reconstruction
1	Foot pressure measurement
1	Orthosis for foot and ankle

OSUR6500 ***Advanced Musculoskeletal Imaging***

Aims

- To provide training on advanced musculoskeletal imaging for spinal disorders examination.

Contents

Module Value	Modules
1	Anatomic and kinesiological examination of the spine
1	Application of micro-CT for bone study
2	Case studies for cervical myelopathy and spinal Instability using diagnostic DTI/BOLD and dynamic VDF
1	Paraspinal muscle imaging for low back pain assessment
1	Principle of DTI/BOLD in the spinal cord

DEPARTMENT OF PAEDIATRICS AND ADOLESCENT MEDICINE

PAED6600 ***Paediatric Cardiology***

Aims

- To introduce the principles and practice of paediatric cardiology.
- To discuss the short and long-term outcomes of congenital heart disease in children and adults and paediatric acquired heart diseases.
- To introduce the nature and rationale of the commonly performed paediatric cardiac investigations.
- To introduce the basic skills in the interpretation of paediatric cardiac investigation findings.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Cardiac catheterization: ♦ Indications for cardiac catheterization ♦ Interpretation of cineangiography ♦ Interpretation of haemodynamic results ♦ Introduction to interventional cardiac catheterization ♦ Principles and techniques of cardiac catheterization
1	Echocardiography: ♦ 2-dimensional, Doppler, colour flow mapping and M-mode ♦ Echocardiography ♦ Newer modalities: acoustic quantification and Doppler tissue imaging ♦ Prenatal screening: foetal echocardiography ♦ Stress echocardiography ♦ Transoesophageal echocardiography
1	Investigations in paediatric cardiology: ♦ Interpretation of chest roentgenograms ♦ Interpretation of electrocardiograms ♦ Interpretation of results of 24-hour ambulatory electrocardiography ♦ Introduction to electrophysiological study ♦ Exercise testing
1	Long-term outcomes of congenital heart diseases: ♦ Approach to management of adolescents and adults with congenital heart disease

- Cardiac function after definitive and palliative cardiac surgery

- Exercise capacity long after definitive cardiac surgery
- Quality of life after surgical repair of congenital heart disease

3 Principles and practice of paediatric cardiology:
- Approach to diagnosis of congenital heart disease
- Clinical presentation
- Intensive care after open and closed heart surgery
- Interpretation of clinical signs
- Medical and surgical management of congenital heart disease
- Pathology, haemodynamics and natural course of acyanotic and cyanotic congenital heart diseases

PAED6700 ***Paediatric Endocrinology***

Aims
- To introduce recent advances of paediatric endocrinology and metabolism.
- To reinforce students' application of basic scientific knowledge in management of clinical paediatric endocrine and metabolic disorders.
- To reinforce students' practice of evidence-based medicine in paediatric endocrinology and metabolism.

Contents

Module Value	Modules
1	Basic concepts in paediatric endocrinology: • Anatomy, physiology, embryology and development of endocrine glands • Inborn error of metabolism • Mechanisms and actions of hormones and growth factors • Molecular genetics of endocrine disorders • Principles and practice of radioimmunoassays, radioreceptor assays, radioligand blotting, western blotting and tissue culture
1	Dynamic tests of endocrine functions in children: • Interpretation • Practical conduct of various tests • Theoretical basis of endocrine testing
0.5	Growth: • Abberant growth patterns • Factors affecting growth • Growth standards - use and abuse • Methods of auxological anthropometry • Normal foetal and postnatal growth
0.5	Laboratory research techniques and molecular studies of hereditary diseases: • General and special laboratory techniques in paediatric research • Molecular basis of some common hereditary diseases • Molecular biology tools for studying hereditary diseases
3	Study of clinical endocrine problems: • Clinical manifestations • Diagnosis and management • Pathogenesis

PAED6801 ***Community Child Health***

Aims

- To introduce about child health problems and its prevention.
- To introduce common childhood diseases in the community and its management.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
	Adolescent health and behavioural medicine:
0.25	Eating disorders in adolescents
0.75	Sexually transmitted disease, high-risk sex and contraception
0.5	Substance abuse in adolescents
	Common child health problems in the community:
1.25	Common health problem in Hong Kong
1	Common renal and urinary tract problems in children
0.75	Common skin problems in children
0.75	Long term outcome of childhood cancer survival
0.5	Obesity epidemic and growth problem in the community
	Environment and child-related public health:
0.75	Asthma and common respiratory diseases in children
0.75	Common food and allergy problems
0.75	Environment, childhood allergy and health promotion
0.5	Environmental pollution, smoking and child health
	Safeguarding children and child development:
0.5	Child abuse & neglect
0.5	Childhood injury and prevention
0.25	Childhood poisoning
0.25	Early child development
0.25	Play and child rights

PAED6909 ***Paediatric Haematology/Oncology/Immunology***

Aims

- To provide a platform of learning for clinicians/scientists to engage in this highly specialize area so they can pursue further study on related fields in the future. This will include the basic knowledge and concepts in paediatric haematology / oncology / immunology and also transplantation.
- To introduce the basic and practical research methodology to either clinicians or scientists so they can acquire appropriate skills to critically appraise research works. In addition, they can have the foundation to conduct simple research projects in the future.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Allergy
1	Rheumatology/Immunology
1	Haematology I: Clinical aspects
1	Haematology II: Basic Science

1	Oncology I
1	Oncology II & transplantation
1	Practical statistical applications in paediatric haematology/oncology/immunology
1	Supportive care in paediatric haematology/oncology/ immunology
0.5	Imaging in paediatric haematology/oncology/rheumatology

DEPARTMENT OF PATHOLOGY

PATH6200 ***Clinical and Molecular Pathology, Haematopathology, and Immunology***

Aims

- To introduce various haematological disorders by specialist haematopathologists who are in active clinical practice. Diseases of white cells, red cells and platelets are covered.
- To introduce an overview of Immunology and major topics in recent research advances and current techniques.
- To provide a solid coverage of basic concepts and techniques in immunology as well as several selected topics on cutting-edge research in the field.
- To provide students with the knowledge and applications of practical immunology, autoantibodies, immunochemistry and cell function.
- To discuss the genetic basis of cancer and implications for clinical diagnosis, prognostication and disease monitoring
- To introduce the chromosomal abnormalities in tumour cells, methods for detection and their clinical significance.
- To provide students with in-depth understanding of the role of molecular genetics and genomics in (a) Diagnostic Molecular Pathology and (b) Investigative Molecular Pathology.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below. When there are insufficient students enrolling in any one module, it may not be offered and our coordinator will advise the candidate to choose a related one.

Module Value	Modules
1	Blood cell and bone marrow pathology: ♦ Clinical and laboratory approach to haematological diseases ♦ Lymphoproliferative neoplasms ♦ Myelodysplastic syndromes and acute myeloid leukaemia ♦ Myeloproliferative neoplasms ♦ Platelets: overview and non-malignant disorders ♦ Red cells: overview and non-malignant disorders ♦ The haemopoietic system ♦ White cells: overview and non-malignant disorders
1	Current topics and techniques in immunology: ♦ B and T cell development and function ♦ Immunofluorescence and confocal microscopy ♦ Immunohistochemistry in diagnostic pathology ♦ Innate and adaptive immunity ♦ Monoclonal antibody technology / flow cytometry ♦ Regulatory b cells and autoimmunity ♦ T cell subsets and functions ♦ T regulatory cells: generation and function

1 Molecular and clinical laboratory immunology methods and applications:

- Applications to allergic diseases
- Applications to autoimmune diseases
- Applications to immunodeficiency diseases
- Applications to monoclonal gammopathy
- Laboratory immunology - molecular, serological and cellular techniques
- Quality assurance and accreditation issues

2 Molecular genetics and cytogenetics of cancer:

- Conventional and molecular cytogenetics practice
- Epigenetics and genetics of malignant lymphomas
  (I) Cancer Epigenetics of Leukemias
  (II) Genetics and Cancer Epigenetics of Lymphoma
- Gynaecological tumours and gestational trophoblastic disease
- Haematolological malignancy
  (I) Acute leukaemia
  (II) Myeloproliferative neoplasms
- Liver cancer
  (I) Molecular basis and characterization of new genes
  (II) Molecular pathogenesis of liver cancer
- Molecular genetics of cancer:
  (I) Genomic analysis
  (II) Polymorphisms and epigenetic mechanisms
  (III) Tumour suppressor genes:
    - Identification and inactivation mechanism of tumour suppressor genes
    - Functional characterization of tumour suppressor genes
- Nasopharyngeal carcinoma - molecular aspects and relationship to EBV
- Oncogenes and transcription factors- a model from acute leukemia
- Paediatric sarcomas and other soft tissue tumours

2 Techniques and applications of molecular pathology:

- Defects in DNA mismatch repair and coloinc cancer
- DNA and its impact on human ID
- DNA methylation study and its association with cancer
- Genetic screening for cancer susceptibility:
  (I) Familial colorectal cancer
  (II) Breast and ovarian cancer
- Molecular detection of genetic alterations in solid tumours
- Molecular diagnosis of malignant lymphoma
- Molecular haematology:
  (I) Globin disorders
  (II) Bleeding and thrombotic disorders
- Molecular pathology of cancer stem cells
- Molecular pathology of renal diseases
- Molecular pathology of virus related diseases
  (I) Epstein barr virus
  (II) Human papilloma virus practical approaches to DNA array technology
- Practical approaches to DNA array technology
- Role of molecular pathology in the diagnosis of diseases

PATH6400 ***Clinical Cytology***

Aims

- To introduce "Fine Needle Aspiration Cytology (FNA)" to students – its concept, procedure, application, usefulness and limitations, role in patient management.
- To demonstrate the FNA features of common clinical diseases.
- To provide material and guidance for reading FNA cases through practical classes.
- To equip students to meet the increased demand on the service of gynaecological cytology / non-gynaecological cytology in Hong Kong.
- To discuss the application of Molecular techniques in clinical cytology.
- To examine the peripheral blood and body fluids in haematology.

Contents

Module Value	Modules
1	Fine needle aspiration cytology: ♦ Introduction to fine needle aspiration ♦ FNA cytology of breast diseases ♦ FNA cytology of lymph node lesions I ♦ FNA cytology of lymph node lesions II ♦ FNA cytology of salivary gland and other head and neck lesions I ♦ FNA cytology of salivary gland and other head and neck lesions II ♦ FNA cytology of thyroid diseases I ♦ FNA cytology of thyroid diseases II ♦ Radiology guided FNA cytology of liver ♦ Radiology guided FNA cytology of lung and other internal organs
1	Gynaecological cytology I: ♦ CPC: Colposcopy and cervical pathology ♦ Normal anatomy and common pathology of female genital tract ♦ Practical on microscopy techniques: Full screening and rapid rescreening of cervical smears ♦ Reactive cellular changes and infections in cervical cytology ♦ Squamous cell abnormalities in cervical cytology ♦ Terminology & reporting system used in gynaecological cytology
1	Gynaecological cytology II: ♦ Application of new laboratory techniques including HPV testing ♦ Automation in cervical cytology ♦ Diagnostic problems and mimickers in cervical cytology ♦ Glandular cell abnormalities in cervical cytology ♦ Liquid based cytology ♦ Treatment-related changes in cervical cytology ♦ Quality assurance and organization of a gynaecological cytology laboratory
1	Hematological cytology and ancillary techniques in cytopathology: ♦ Application of immunohistochemistry to cytology ♦ Application of in-situ hybridization as ancillary test ♦ Application of molecular techniques in clinical cytology ♦ Automation in cervical cytology

- Examination of peripheral blood and body fluids in haematology
- Molecular detection of human papilloma virus

1 Non-gynaecological cytology:
- Anatomy and cytology of respiratory tract I
- Anatomy and cytology of respiratory tract II
- Anatomy and cytology of urinary tract I
- Anatomy and cytology of urinary tract II
- Cytology of cerebrospinal fluid
- Cytology of effusion fluid
- Cytology of joint fluid and revision
- Non-gynaecological cytology case review

DEPARTMENT OF PHARMACOLOGY AND PHARMACY

PHAR6200 ***Current Development in Pharmacology and Pharmaceutics***

Aims

- To provide a broad overview of the current challenges in delivering therapeutic biomacromolecules and various aspects of the rapidly growing field of nanomedicine, and to discuss the development of a new pharmaceutical product, from drug discovery to marketing.
- To equip students with an in-depth understanding of the basic principles of toxicological science and to enable them to apply this knowledge appropriately and effectively in determining and evaluating potential health hazards and risks.
- To outline the pathophysiology of the cardiac and respiratory systems and to discuss with students the current and potential therapeutic strategies for the management of cardiac and respiratory diseases.
- To introduce how different regulatory systems coordinate together the maintenance of vascular tone and vascular integrity, and the rationale behind the current and prospective drug treatments for vascular diseases and vascular complications of diabetes and hypertension.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value Modules

2 Advanced drug delivery and drug development:
- Advanced technology in pulmonary delivery
- Delivery of therapeutic proteins, peptides and nucleic acids
- Development of nanomedicines
- Development of pharmaceutical product includes formulation, toxicity study, stability study, clinical trials and drug marketing
- Strategies to achieve specific targeting

2 Basic and applied toxicology:
- Chemical carcinogenesis, genetic and developmental toxicology and target organ toxicities
- Mechanisms of toxicity
- Occupational and environmental toxicants
- Principles of toxicology
- Risk assessment and toxicogenomics
- Toxicokinetics

2	Drugs for the treatment of heart and lung diseases: ♦ Current therapeutic approaches for several cardiac and respiratory diseases ♦ General physiology and functions of the cardiac and respiratory systems ♦ Pathologies of cardiac and respiratory systems ♦ Research and development of new treatments for heart and lung diseases
2	Vascular biology and therapeutics: ♦ Current knowledge and advanced research findings on the neuronal, hormonal and local control of the vascular system under normal and pathological conditions ♦ Functions of the systemic and pulmonary vasculature ♦ Regulatory mechanisms for the maintenance of vascular integrity and tone ♦ Management of vascular disorders and the complications of hypertension diabetes, in particular thrombosis and atherosclerosis

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DEPARTMENT OF PHYSIOLOGY

PHYO6300 ***Current Topics in Physiology***

Aims

- To provide the background for students conducting research and writing dissertation.
- To equip students with the skills in literature research, experimental design, conducting experiments in various topics in physiology.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
6	Cardiopulmonary sciences
6	Endocrinology
6	Molecular and cellular physiology
6	Neurophysiology and brain function

DEPARTMENT OF PSYCHIATRY

PSYS6200 ***Sleep Disorder***

Aims

- To provide students with basic knowledge on common sleep disorders.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
2	Clinical assessment of sleep disorder
2	Physiological assessment of sleep disorder
2	Physiology of sleep
2	Sleep pathology
2	Treatment of sleep disorder

DEPARTMENT OF SURGERY

SURG6100 ***Breast Surgery***

Aims

- To introduce breast disease including breast cancer.
- To introduce clinical and academic areas of breast diseases including research.

Contents

Module Value	Modules
1	Breast cancer genetics and its clinical application
1	Breast surgery including reconstruction and cosmetic surgery of the breast
1	Psychological morbidity of breast disease (in conjunction with the Department of Psychiatry)
1	Radiological investigations in breast disease and screening for breast cancer (in conjunction with the Department of Diagnostic Radiology)
1	Surgical anatomy and physiology of the breast
1	Surgical pathology and molecular basis and research of breast disease

SURG6200 ***Colorectal Surgery***

Aims

- To introduce the epidemiology and presentation and clinical features of common colorectal diseases.
- To review the current multidisciplinary management of colorectal cancer.
- To introduce minimally invasive surgery for colorectal diseases and cancer.
- To discuss the application of enhanced recovery after surgery program in the perioperative management of patients with colorectal surgery.

Contents

Module Value	Modules
1	Diagnosis and management of benign diseases of colon, rectum and anus
1	Enhanced postoperative recovery after colorectal surgery
2	Minimally invasive surgery for colorectal diseases
1	Multidisciplinary management of colorectal cancer
1	Surgery for colorectal malignancy

SURG6300 ***Ear, Nose and Throat Surgery***

Aims

- To provide in depth studies of selected conditions of the ear, nose and throat.
- To introduce the principles and practice of advance investigative technologies for diagnosis of diseases in the ear, nose and throat organ.
- To provide in depth exposure to the clinical practice of speech therapist.
- To provide in depth exposure to the clinical practice of audiologist and rehabilitation of hearing.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Assessment and rehabilitation of swallowing disorders
1	Assessment of smell and function of nose
1	Anatomy of the ear, nose or throat organ
1	Concepts in speech therapy and speech rehabilitation
1	Endoscopic assessment of upper aerodidestive tract
1	Physiology of the ear, nose or throat organ
1	Principles of audiology and assessment of hearing
1	Rehabilitations for the hearing impaired

SURG6400 ***Gastroduodenal Surgery***

Aims

- To provide current and in-depth study on the principles and practice of gastroduodenal surgery.
- To improve and sustain a high standard in the management of gastroduodenal disorders in Hong Kong and the region.

Contents

Module Value	Modules
1	Anatomy and physiology of the stomach and duodenum
1	Diagnostic and therapeutic endoscopy
1	Gastric tumours
1	Laparoscopic surgery
1	Surgical treatment of benign and malignant conditions
1	Ulcer diseases and their complications

SURG6500 ***Head and Neck Surgery***

Aims

- To introduce the spectrum of benign and malignant conditions involving the head and neck region.
- To introduce the concept of management of common head and neck pathology.

Contents

Module Value	Modules
1	Applied anatomy of the head and neck region
1	Endoscopic examination of the head and neck region
1	Management of complications after surgery
1	Operative surgery, including resection of tumour and reconstruction of the resultant defect
1	Post-operative assessment of wounds and functional training
1	Ultrasound examination and fine needle aspiration of pathology in the neck

SURG6600 ***Hepatobiliary and Pancreatic Surgery***

Aims

- To introduce the epidemiology, pathology and clinical management of hepatocellular carcinoma.
- To introduce the role of liver transplantation in the management of hepatocellular carcinoma.

Contents

Module Value	Modules
1	Hepatectomy and other major surgical procedures
1	Liver transplantation

1	Local ablative treatment e.g. microwave and high intensity focused ultrasound
1	Preoperative assessment of liver function before hepatectomy
1	Study of specific clinical problems, e.g. hepatocellular carcinoma, combined hepato-cholangiocarcinoma, acute-on-chronic liver failure, long-term quality of life of living liver donors
1	Surgical anatomy of the liver, biliary tract and pancreas

SURG6700 ***Neurosurgery***

Aims

- To introduce the concepts, techniques and clinical applications of microsurgical vascular anastomosis in the treatment of cerebrovascular diseases.
- To introduce the concepts and techniques of common microneurosurgical approaches to the cranium.

Contents

Module Value	Modules
5	Microneurosurgical approaches to the cranium
1	Microsvascular anastomosis

SURG6800 ***Oesophageal Surgery***

Aims

- To introduce the variety of esophageal pathologies.
- To introduce diagnostic and therapeutic options for benign and malignant conditions that affect the esophagus and foregut.

Contents

Module Value	Modules
1	Diagnostic work up for patients with reflux and motility esophageal disorders
1	Diagnostic work up of patients with esophageal cancer
1	Epidemiology of esophageal cancer
1	Minimally invasive surgery of treatment of reflux and motility disorders of the esophagus
1	Open and minimally invasive surgery
1	Pathophysiology of gastroesophageal reflux disease and epidemiology, and motility disorders of the esophagus

SURG6900 ***Paediatric Surgery***

Aims

- To introduce the principles and practice of paediatric surgery.
- To introduce the essentials for undertaking a research project related to the field of paediatric surgery.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Developmental biology for congenital anomalies and paediatric surgical conditions
1	Endosurgery in children and neonates
1	General paediatric surgery

1	Molecular genetics for congenital anomalies and paediatric surgical conditions
1	Neonatal surgery
1	Paediatric hepatobiliary surgery
1	Paediatric urology

SURG6010 ***Plastic and Reconstructive Surgery***

Aims

- To introduce the basic principle of wound healing and factors affecting wound healing.
- To introduce the concept of reconstruction of complicated wounds.
- To introduce the concept of local, pedicled and free flaps.
- To introduce the concept behind microvascular surgery.

Contents

Module Value	Modules
1	Congenital deformities and management
1	Management of burn wounds
1	Management of common skin cancers
1	Microvascular surgery
1	Principles of flap reconstruction
1	Traumatic injuries and management

SURG6920 ***Principles and Practice of Endoscopy***

Aims

- To introduce the principles and practice of endoscopy.
- To improve and sustain a high standard in the practice of endoscopy in Hong Kong and the region.

Contents

Module Value	Modules
1	Basic principles
1	Diagnostic endoscopy
1	Preparation and patient care
2	Research in endoscopy
1	Therapeutic endoscopy

SURG6030 ***Surgical Endocrinology***

Aims

- To introduce the pathophysiology of a wide range of surgical endocrine tumours and conditions (benign nodular thyroid disease, thyroid carcinoma, primary hyperparathyroidism, secondary and tertiary hyperparathyroidism, adrenal functional tumours, adrenal metastases, adrenocortical carcinoma, pancreatic neuroendocrine tumours).
- To introduce the principles behind various investigational tools for endocrine tumours and conditions.
- To discuss relevant endocrine pathology, medical oncology, radiation oncology and endocrinology in various surgical endocrine problems.

Contents

Module Value	Modules
1	Clinical research and statistics
1	Choice of localization studies for surgical endocrine diseases
1	Choice of surgery for various endocrine related tumours
1	Factors affecting prognosis of various endocrine related tumours

1	Physiology and pathology of thyroid diseases
1	Understand the concept behind endoscopic and laparoscopic endocrine surgical procedures

SURG6070 ***Vascular Surgery/Non-Invasive Vascular Laboratory Imaging Techniques***

Aims

- To introduce vascular diseases and non-invasive diagnostic tests.
- To discuss the basic principles underlying various techniques.
- To guide students in the selection and interpretation of various diagnostic approaches.

Contents

A candidate is required to choose a total of **six** modules (i.e. total module values = 6) from the modules listed below.

Module Value	Modules
1	Anatomy and physiology
5	Principles of Non-invasive diagnostic tests
2	Vascular and related diseases

D. DISSERTATION

The dissertation shall comprise a record of substantial experimental or clinically-based work on the project, or a review of the existing literature on the subject of the project, presented in a form suitable for publication. A minimum of 200 hours is required for the project.