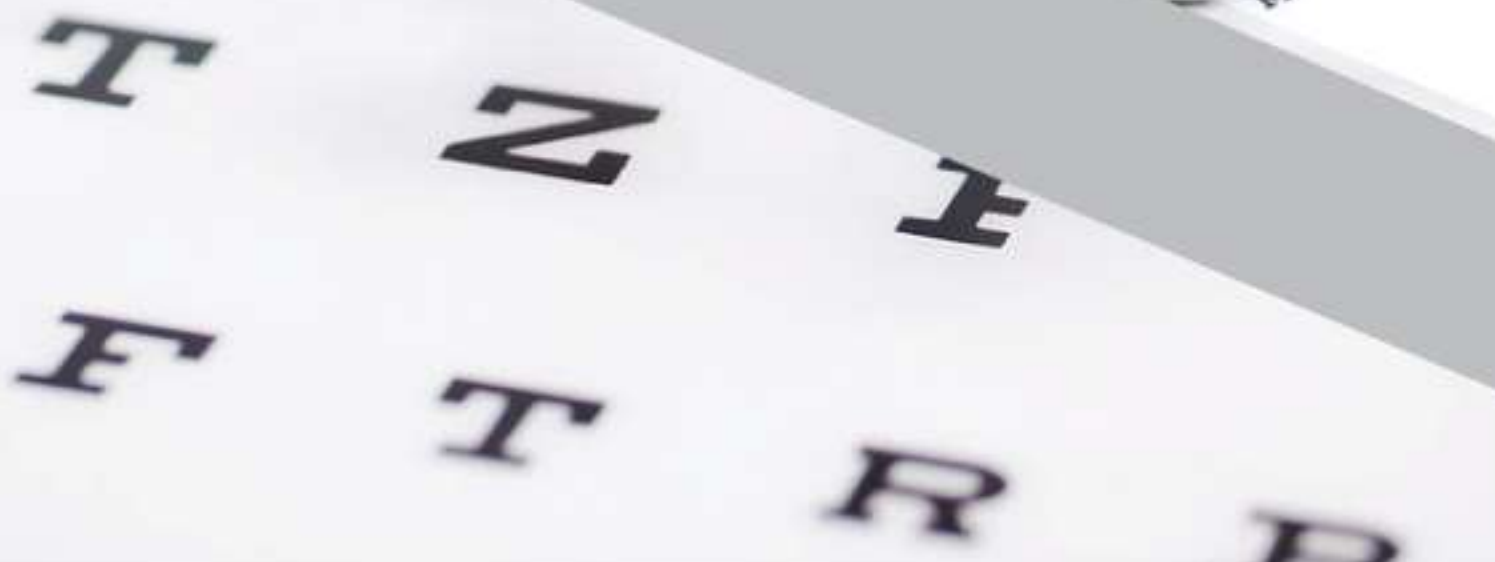


# GRADUATE GUIDELINES

## Master of Clinical Optometry



Ahli Akademik (Academic Staff)

Program Audiologi  
*Audiology Programme*

Profesor (Professor)

Siti Zamratol-Mai Sarah Mukari, *MD(UKMalaysia), MSc(Manchester), AuD(Central Michigan), FAAA*

Profesor Madya (Associate Professor)

Cila Umat, *SmSn(Kep.)(UKMalaysia), PGDip.(Aud), MAud.(Macquarie), PhD (Melb)*

Rafidah bt Mazlan, *SmAudio.(Kep.)(UKMalaysia), MPhil, PhD(Queensland)*

Pensyarah Kanan (Senior Lecturers)

Quar Tian Kar, *SmSa (Kep.)(UKMalaysia), PGDip.(Aud), MAud(Melb), PhD (Melb)*

Nor Haniza Abdul Wahat, *SmAudio.(Kep.)(UKMalaysia), MSc (Southampton), PhD (Western Australia)*

Nashrah bt Maamor, *SmAudio.(Kep.)(UKMalaysia), MSc(Manchester), PhD(Western Australia)*

Wan Syafira bt Ishak, *SmAudio.(Kep.)(UKMalaysia), PhD(Bristol)*

Marniza bt Omar, *SmAudio.(Kep.)(UKMalaysia), MSc(Southampton)\**

Pensyarah (Lecturers)

Akmaliza bt Ali, *SmAudio.(Kep.)(UKMalaysia), MSc(Southampton)*

Chong Foong Yen, *SmAudio.(Kep.)(UKMalaysia), MSc (UBC)\**

Noor Alaudin bin Abdul Wahab, *SmAudio.(Kep.)(UKMalaysia), MSc(Wisc)\**

\* Cuti belajar / Study leave

Program Dietetik

*Dietetics Programme*

Profesor (Professor)

Suzana bt Shahar, *SmSn(UKMalaysia), M Med.Sci., PhD(Sheffield)*

Tilakavati Karupaiah, *BSc., MSc(Madras), MSc(Malaya), PGDip(Deakin), PhD(UKMalaysia), APD, AN(DAA)*

Profesor Madya (Associate Professor)

Suhaina bt Sulaiman, *Dip. Inst. Cat. & Mgmt(UiTM), BS, MS(Illinois), PGDip Dietetics(Otago), PhD(UKMalaysia)*

Nik Shanita bt Safii, *Dip Sci(UiTM), SmSn(UKMalaysia), MSc(Aberdeen), PhD(UKMalaysia)*

Roslee bin Rajikan, *SmSn(UKMalaysia), MSc(Aberdeen), PhD(Glasgow)*

Zahara bt Abd Manaf, *Dip. Sci(UiTM), SmSn, SSnKes(UKMalaysia), PhD (Newcastle Upon Tyne)JHH*

Pensyarah (Lecturers)

Nor Aini bt Jamil @ A.Wahab, *SmSn, SSnKes(UKMalaysia)*

Nur Hana bt Hamzaid, *SmSn(UKMalaysia), MSc(Med Sci)(Glasgow)\**

Nurul Huda bt Razalli, *SmSn(UKMalaysia)*

Munirah bt Ismail, *smsn, ssn kes (UKMalaysia)*

Shanthy a/p Krishnasamy, *BSC (Hons) Biomed (UPM), Master of Nutr & Dietetics (Adelaide), APD, AN (DAA)\**

Puan Haslina Abdul Hamid *BSc.,(MSU), MS (Minnesota), RDN*

\* Cuti belajar / Study leave

Program Fisioterapi  
*Physiotherapy Programme*

Profesor Madya (Associate Professor)

*GCertPhy(Clin)(Queensland), MPhty(Queensland)\**

Devinder Kaur a/p Ajit Singh, *Dip. Physiotherapy(Mal), Dip. Sport Injury(CAHPER-CIDA), BSc.(Hons) Applied Rehabilitation(PT)(UK), PhD Physiotherapy (Brighton)*

Pensyarah Kanan (Senior Lecturers)

Nor Azlin bt Mohd. Nordin, *Dip. Physiotherapy(Mal), BSc.(Hons) Applied Rehabilitation(PT)(UK),*

Pensyarah (Lecturers)

Nor Najwatul Akmal bt Ab. Rahman, *Sm.Fisioterapi(Kep)(UKMalaysia)\**

Asfarina bt Zanudin, *Sm.Fisioterapi(Kep)(UKMalaysia)\**

Nor Azura bt Azmi, *Sm.Fisioterapi(Kep)(UKMalaysia), MSc. Health & Rehabilitation (Southampton)\**

Normala bt Mesbah, *Sm.Fisioterapi(Kep)(UKMalaysia)\**

Tutor (Tutors)

Mohd Azuan bin Ahmad, *sm. Fisioterapi (Kep)(UKM)\**

\*Cuti belajar / Study leave

Program Kesihatan Persekitaran dan Keselamatan Industri  
*Environmental Health and Industry Safety Programme*

Profesor Madya (Associate Professor)

Hing Hiang Lian, *Sm.Sn(UKMalaysia), PhD(UKMalaysia)*

Normah bt Awang, *SmSn(UKMalaysia), SSn(UKMalaysia), PhD(UKMalaysia)*

Chan Kok Meng, *SmSB(UKMalaysia), PhD(UKMalaysia)*

Pensyarah Perubatan VK7 (VK7 Medical Lecturer)

Mazrura bt Sahani, *MD(Leuven), MPH(UKMalaysia), PhD(Richmond)*

Pensyarah Kanan (Senior Lecturers)

Anuar bin Ithnin, *Dip. Mikrobiologi(UiTM), Sm.SB(UKMalaysia), S.Kes.Pekerjaan (UKMalaysia), PhD OSH-MS(UKMalaysia)*

Mohd Sham bin Othman, *B.AppSc(USMalaysia), SSn(UKMalaysia), PhD(Chulalongkorn)*

Siti Shahara bt Zulfakar, *Sm Kes. Pers.(Kep.)(UKMalaysia)*

Nurul Farahana bt Kamaludin, *Sm Kes. Pers.(Kep.)(UKMalaysia), PhD(UKMalaysia)*

Pensyarah (Lecturers)

Mohammad Ikram bin A. Wahab, *Sm Kes. Pers.(Kep.)(UKMalaysia), MSc (AIT)*

Noor Sazarina bt Mad Isa @ Yahya, *Sm Kes. Pers.(Kep.)(UKMalaysia)\**

Tutor

Farah Diyana bt Ariffin, *Sm Kes. Pers.(Kep.)(UKMalaysia)\**

\* Cuti belajar / Study leave

Program Optometri dan Sains Penglihatan  
*Optometry and Vision Science Programme*

Profesor (Professors)

Bariah binti Mohd. Ali, *SmOptom(UKMalaysia), Ph.D(UNSW, Australia), FAMO, FBCLA*  
Sharanjeet Kaur, *SmOptom(UKMalaysia), Ph.D(UMIST, UK)*

Profesor Madya (Associate Professor)

Haliza binti Abdul Mutalib, *SmOptom(UKMalaysia), MSc, Ph.D(UMIST, UK)*  
Datuk Rokiah binti Hj Omar, *SmOptom(UKMalaysia), Ph.D(UNSW, Australia), FAAO, FAMO*

Pensyarah Kanan (Senior Lecturer)

Bashirah binti Ishak, *SmOptom, SSnKes(UKMalaysia), Ph.D(UKMalaysia)*  
Mizhanim binti Mohamed Shahimin, *SmOptom, SSnKes(UKMalaysia), Ph.D(Cardiff, UK)*  
Mohd. 'Izzuddin bin Hairol, *SmOptom(UKMalaysia), Ph.D(Anglia Ruskin University, UK)*  
Norliza binti Mohamad Fadzil, *BMedSc(Orthoptics)(Sheffield), SSnKes(UKMalaysia), Ph.D(La Trobe University, Australia)*  
Saadah binti Mohamed Akhir, *SmOptom, SSnKes(UKMalaysia), Ph.D(UKMalaysia)*  
Sumithira a/p Narayanasamy, *SmOptom(UKMalaysia), Ph.D(QUT, Australia)*  
Zainora binti Mohammed, *SmOptom(UKMalaysia), Ph.D(UMIST, UK)*

Pensyarah (Lecturer)

Noor Fadhilah binti Ahmad Zainuri, *SmOptom, SSnKes(UKMalaysia)*  
Norlaila binti Mat Daud, *SmOptom, SSnKes(UKMalaysia)*  
Mohd Harimi bin Abd Rahman, *SmOptom(UKMalaysia), Ph.D(UKMalaysia)*

\* Cuti belajar / Study leave

Program Pengimejan Diagnostik & Radioterapi  
*Diagnostic Imaging & Radiotherapy Programme*

Profesor Madya (Associate Professors)

Ahmad Nazlim bin Hj. Yusoff, *SmSn, SSn, PhD(UKMalaysia)*  
Kanaga Kumari a/p Chelliah, *DCRR(London), BSc, PGDip.(Curtin), MSc(USMalaysia)*

Pensyarah Kanan

Mazlyfarina bt Mohamad, *BEng(USMalaysia), MSc(UMalaya), PhD(UKMalaysia)*  
Akmal bin Sabarudin, *SM.Peng.Diag.Rterapi(Kep.)(UKMalaysia), PhD(Curtin)*

Pensyarah (Lecturers)

Aisyah bt Yusof Azuddin, *Sm Peng. Diag. Rterapi(Kep.)(UKMalaysia), MRes(Liverpool)*  
Iskandar bin Kassim, *SmSB, SSnPer(UKMalaysia)*  
Nor Aniza bt Azmi, *Sm. Peng. Diag. Rterapi(Kep.)(UKMalaysia), MRes(Liverpool)*  
Rukiah bt Abd Latiff, *SmSn(UKMalaysia), MSc(USMalaysia)*  
Noorazrul Azmie bin Yahya, *Sm Peng. Diag. Rterapi(Kep.)(UKMalaysia), MSc(UMalaya)*  
Rozilawati bt Ahmad, *SmSn(UKMalaysia), MSc(USMalaysia)*  
Puan Afiffah Mohamed Sm Pengi.Perubatan (UiTM), MSc ( ICL).

Tutor (Tutors)

Mohd. Izuan bin Ibrahim, *Sm. Peng. Diag. Rterapi(Kep.)(UKMalaysia) \**  
Norhashimah Mohd Norsuddin, *Sm Peng.Diag.Rterapi(Kep.)(UKMMalaysia)*

\*Cuti belajar / Study leave

Program Psikologi Kesihatan  
*Health Psychology Programme*

Profesor Madya (Associate Professors)

Normah bt Che Din, *BHSc(Psychol)(IIUMalaysia), MA(Clinical Psychology)(UKMalaysia), PhD Psych (UKMalaysia)*

Pensyarah Kanan (Senior Lecturers)

Mahadir bin Ahmad, *B Psych (Industrial & Organisational)(UMSabah), MA (Clinical Psychology)(UKMalaysia), PG. Dip. Psych (Aberdeen), PhD Psych (Aberdeen)*

Shazli Ezzat bin Hj Ghazali, *BMassComm(UiTM), MA(Industrial / Organisational Psychology)(UKMalaysia), PhD Psych (UKMalaysia)*

Ponnusamy a/l Subramaniam, *BA(Psych)(UKMalaysia), MA(Clinical Psychology)(UKMalaysia), PhD Psych (Bangor)\**

Norhayati bt Ibrahim, *BA(Psych)(UKMalaysia), MA(Counseling Psychology)(UKMalaysia), PhD Psych (UKMalaysia)*

Noh bin Amit, *BHSc(Psych)(IIUMalaysia), MA(Counseling & Clinical Psychology)(IIUMalaysia), PhD Psych (Monash)*

Zaini bin Said, *BA(Usuluddin)(UMalaya), MA(Counseling Psychology)(UKMalaysia), PhD Psych (UKMalaysia)*

Pensyarah (Lecturer)

Gan Chun Hong, *BA(Psych)(UMalaya), MA(Kyushu)*

\*Cuti belajar / Study leave

Program Sains Bioperubatan  
*Biomedical Science Programme*

Profesor (Professors)

Mohamed Kamel bin Abd. Ghani, *MD(UKMalaysia), DLSHTM(London), M.Sc(London), AM(Mal)*

Profesor Madya (Associate Professors)

Noraziah bt Mohamed Zin, *B.Sc(UPMalaysia), Ph.D(Strathclyde)*

Ahmad Rohi bin Ghazali, *B.Sc(Liverpool), M.Sc(Birmingham), Ph.D(Birmingham)*

Ahmad Zorin bin Sahalan, *Sm.Sn, M.Sc(UKMalaysia), Ph.D(Bradford)*

Hidayatul Fathi bt Othman, *B.Sc(USMalaysia), M.Sc(Liverpool) Ph.D (UKMalaysia)*

Nor Fadilah bt Rajab, *B.Sc(UPMalaysia), S.Sn(UKMalaysia), Ph.D(Ulster)*

Siti Balkis bt Budin, *MD(UKMalaysia), M.Sc(Ulster), Ph.D(UKMalaysia)*

Jacinta a/p Santhanam, *Sm.Sn(UKMalaysia), M.Sc(Manchester), Ph.D(Manchester)*

Dayang Fredalina bt Hj Basri, *B.Sc(Aberdeen), M.Sc(Sussex), Ph.D(UKMalaysia)*

Yanti bt Rosli, *Sm.Sn(UKMalaysia), M.Med.Sci(Glasgow), PhD(ANU)*

Asmah bt Hamid, *Sm.Sn, S.SnKes(UKMalaysia), Ph.D(UPMalaysia)*

Zariyantey bt Abdul Hamid, *Sm.SB(UKMalaysia), PhD(King's College London)*

Pensyarah Kanan (Senior Lecturers)

Ismarulyusda bt Ishak, *Sm.SB, PhD(UKMalaysia)*

Mazlyzam bin Abdul Latif, *B.Sc(Malaya), PhD(UKMalaysia)*  
Shafariatul Akmar bt Ishak, *B.Sc(Malaya), M.Sc(Liverpool)*  
Arimi Fitri bin Mat Ludin, *Sm.SB(UKMalaysia), M.Sc(USMalaysia), Ph.D(UPMalaysia)\**  
Nur Zakiah bt Mohd Saat, *Sm.Sn, S.Sn(UKMalaysia), PhD(UKMalaysia)*  
Satirah bt Zainal Abidin, *SmSB(UMalaya), M.Sc(UKMalaysia), Ph.D (Strathclyde)*  
Yap Wei Boon *B.Sc(UPMalaysia), Ph.D(UPMalaysia)*  
Nor Malia bt Abdul Warif, *Sm.SB, S.SnKes(UKMalaysia), PhD(Queensland)*  
Siti Fatihah bt Masre, *SmSB(UKMalaysia),M.Sc(USMalaysia), PhD(Glasgow)*  
Elda Surhaida bt Latif, *SmSB(UKMalaysia), M.Sc(Medical, UKMalaysia), PhD(Newcastle)*  
B. Hemabarathy a/p Bharatham, *B.Sc (Hons.)(Biomed)(UPMalaysia), M.Sc(UKMalaysia)*  
*Ph.D(UPMalaysia)\**  
Izatus Shima Taib (*Sm.SB, S.SnKes, PhD (UKMalaysia)*)  
Farah Wahida bt Ibrahim, *SmSB(UKMalaysia), M.Sc(Medical, UKMalaysia), PhD(Monash)*  
Nur Najmi Mohamad Anuar, *SmB(MSU),MML.Sc(RMIT,Australia), PhD(Bristol)*  
Nurul Farhana binti Jufri, *SmSB(UKMalaysia), PhD(Macquarie)*

\* Cuti belajar / Study leave

#### Program Sains Forensik *Forensic Science Programme*

Profesor Madya (Associate Professor)  
Khairul bin Osman, *Sm.SB, PhD(UKMalaysia)*

Pensyarah Kanan  
Raja Muhammad Zuha bin Raja Kamal Bashah, *SmSB (UKMalaya), MCJ(UMalaysia)\**  
Gina Francesca Gabriel, *SmSnForensik((Kep.)(UKMalaysia)*  
Rus Dina bt Rus Din *SmSnForensik(UKMalaysia), PhD(UKMalaysia)*  
Hukil bin Sino, *SmSn(UKMalaysia), M.Env(UPMalaysia)*

Pensyarah Perubatan  
Sri Pawita Albakri bt Amir Hamzah, *MB BCh BAO (Dublin), DMJ (Path) (London)*  
Noor Hazfalinda bt Hamzah, *MD(UKMalaysia), MA(Forensic.Med.)(Dundee)*

Pensyarah (Lecturers)  
Lee Loong Chuen, *BSc.(Hons.)(Forensic Sc.)(USMalaysia)\**  
Seri Mirianti bt Ishar, *BSc.(Hons.)(Forensic Sc.)(USMalaysia)\**

\*Cuti belajar / Study leave

#### Program Sains Pemakanan *Nutrition Science Programme*

Profesor (Professors)  
Norimah bt A. Karim, *BSc, MSc(IU), PhD(Southampton), FNSM*  
Poh Bee Koon, *SmSn, PhD(UKMalaysia), FNSM*  
Ruzita bt Abd Talib, *SmSn., PhD(UKMalaysia)*

Profesor Madya (Associate Professors)  
Hasnah bt Haron, *SmSn, SSn(UKMalaysia), PhD(UPMalaysia)*

Wee Lei Hum *BA Hons (USM), PgC Public Health (IPH), MHlth Comm (Curtin Australia), PhD (Universiti Malaya)*

Pensyarah Kanan

Hanis Mastura bt Yahya, *SmSn, SSnKes(UKMalaysia)\**

Wong Jyh Eiin, *SmSn(UKMalaysia), MSc(Med Sci)(Glasgow)\**

Caryn Chan Mei Hsien *BPsych (HELP), PhD (Universiti Malaya)*

Razinah bt Mohd Sharif, *SmSn(UKMalaysia), SSn(UKMalaysia), PhD (Adelaide)*

En.Lim See Meng *BSc(UPMalaysia), MSc(UPMalaysia)\**

Pensyarah (Lecturers)

Sameeha bt Mohd Jamil, *BSc(PKK)(UPM), MHSc(International Health)(Tokyo)\**

\* Cuti belajar / Study leave

Program Sains Pertuturan *Speech Science Programme*

Profesor

Kartini bt Ahmad, *MBBCh(Tanta), MSc(London), PhD(Wisc.)*

Profesor Madya (Associate Professors)

Rogayah bt A. Razak, *BSc, MA(Indiana), PhD(USMalaysia/U.Calif. at Santa Cruz)*

Pensyarah Kanan (Senior Lecturers)

Basyariatul Fathi bt Othman, *SmSn Pertut.(Kep.)(UKMalaysia), PhD (Melb)*

Hasherah bt Mohd Ibrahim, *SmSn Pertut.(Kep.)(UKMalaysia), PhD(Melb)*

Lim Hui Woan, *SmSa(Kep.)(UKMalaysia), MA(Reading), PhD(Sheffield)*

Rahayu bt Mustaffa Kamal, *SmSn Pertut.(Kep.)(UKMalaysia), MSLT(Canterbury)\**

Shobha Sharma, *BA(St. Cloud State Uni.), MLSP(UMalaya), MSLT(Canterbury)\**

Badruzaman bin Abdul Hamid, *BA(Hons.)(UMalaya), MA(Newcastle Upon Tyne)*

Susheel Kaur Dhillon a/p Joginder Singh, *SmSn Pertut.(Kep.)(UKMalaysia)\**

Chu Shin Ying, *BA, MA, Ph.D (Kansas)*

Pensyarah (Lecturers)

Yazmin bt Ahmad Rusli, *SmSn Pertut.(Kep.)(UKMalaysia), MSc(Durham)*

Mursyida bt Hassan, *B.Med.Sci.(Leicester), SmSn Pertut.(Kep.)(UKMalaysia)\**

Fatimah Hani bt Hassan, *SmSn Pertut.(Kep.)(UKMalaysia)\**

\* Cuti belajar / Study leave

Program Terapi Carakerja

*Occupational Therapy Programme*

Profesor Madya (Associate Professor)

Noor Ibrahim bin Mohamed Sakian, *MD(UKMalaysia), PG Dip(Salford), M.Sc(USMalaysia)*

Pensyarah Kanan (Senior Lecturer)

Sazlina bt Hj. Kamaralzaman, *M.B.B.Ch, B.A.O.(Ireland), LRCP & SI(NUI), DipEd. (Hons.)(Malaya), MSc. Rehab(Nottingham)*

Masne bt Kadar, *Dip.OT(KKMalaysia), BSc.(Hons)App. Rehab.(OT)(Teesside), Master in Disability Studies(Adelaide)\**

Nor Farah bt Mohamad Fauzi, *SmSB(UKMalaysia), MSc(USMalaysia)*

Dzalani bt Harun, *Dip.OT(KKMalaysia), BSc.(Hons)App. Rehab.(OT)(Teesside), MHIthSc(OT)(Sydney)\**

Chai Siaw Chui, *Dip.OT(KKMalaysia), BSc.(Hons)App. Rehab.(OT) (Teesside), MA(New York)\**

Nor Afifi bt Razaob @ Razab, *SmSB(UKMalaysia), MSc. in Cardiac Rehabilitation(UK)\**

Pensyarah (Lecturers)

Hanif Farhan bin Mohd Rasdi, *SmTer.Ckerja(UKMalaysia)\**

Tutor (Tutors)

Aifah bt Jamaludin, *SmTer.Ckerja(UKMalaysia)*

Noorashikin bt Samin, *SmTer.Ckerja(UKMalaysia)\**

\* Cuti belajar / Study leave

Program Pendidikan Kesihatan

*Health Education Programme*

Profesor Madya (Associate Professor)

Wee Lei Hum, *MHIth Comm, Curtin, Australia, PhD (Health Beehaviour), Malaya*

*Penyelaras Program Sarjana Pendidikan Kesihatan*

Pensyarah (Lecturers)

Caryn Chan Mei Hsien, *B. Psych., PhD (Malaya)*

*Program Pendidikan Kesihatan*

\* Cuti belajar / Study leave



## Masters of Clinical Optometry

### Introduction

This programme will provide the student with an opportunity to enhance their career prospects in the field of optometry through gaining both an academic qualification and a professional qualification. It has been designed to fulfil the learning needs of the postgraduate eye care professional in practice; to provide advanced knowledge and facilitate understanding in this rapidly expanding field of healthcare.

The emphasis of this module is on providing a sound knowledge of the pharmacology of ocular therapeutic drugs, the clinical features and management options for common anterior eye disease, drugs used in the treatment of common eye disease and the potential impact of medications on the eye and vision. Therefore the student will be adequately equipped with the necessary knowledge and skills to enhance their career and contribute effectively to extended professional roles.

This course has been designed for a busy professional who needs postgraduate studies to be flexible, to fit in with work, home and family life. The programme is primarily aimed at eye care professionals in practice, studying full-time, at a distance from the University, with internet access to our virtual learning environment (VLE). The modules available on this programme also contain advanced clinical training, which will normally be provided over a 1-2 day period at an appointed hospital near to your vicinity.

### Objectives

To produce professionals who are:

- Proficient in making a differential diagnosis and make decisions on the appropriate management strategies.
- Proficient in examining, diagnosing, and treating common anterior eye diseases.
- Able to design and evaluate, projects which involve assessment and intervention of visual problems.
- Able to understand ethical issues related to individual and community health.

### Total Unit

The total compulsory units that have been set for this programme is 45 units

## Curriculum for Masters of Clinical Optometry

### Semester I

Code	Course Name	Unit
NNNV6114	Ocular Therapeutics I	4
NNNV6116	Advanced Clinical Optometry	6
NNNV6214	Advanced Contact Lenses	4
NNNV6113	Methods & Ethics of Research	3
	Total Units	17 units

### Semester II

Code	Course Name	Unit
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#### *Core Courses*

NNNV6164	Clinical Medicine	4
NNNV6144	Ocular Therapeutics II	4
NNNV6184	Statistics	4

#### *Elective Courses (Choose one elective course only)*

NNNV6324	Advanced Binocular Vision	4
NNNV6724	Geriatric Optometry	4
	Total Units	16 units

### Semester III

Code	Course Name	Unit
NNNV6234	Clinical Management	4
NNNV6238	Project	8
	Total Units	12 units
	Grand total units is	45 units

LIST OF COURSES WITH PROGRAMME EDUCATIONAL OUTCOMES FOR  
MASTER OF CLINICAL OPTOMETRY

The aims of the programme Master of Clinical Optometry are to:

OPP1: Applying knowledge and advanced investigative techniques in the detection, diagnosis and management of various visual function problems.

OPP2: Demonstrate professionalism, ethics, responsibility in terms of the law and communicate effectively.

OPP3: Ability to conduct and disseminate research results.

Semester I

Bil	Kod Kursus	Kredit	Nama Kursus	Programme Educational Outcome (PEO)									
				1	2	3	4	5	6	7	8		
1	NNNV6114	4	Ocular Therapeutics I	√	√								
2	NNNV6116	6	Advanced Clinical Optometry		√	√	√	√					
3	NNNV6214	4	Advanced Contact Lenses			√	√						
4	NNNV6113	3	Methods & Ethics of Research							√	√		

Semester II

*Core Courses*

Bil	Kod Kursus	Kredit	Nama Kursus	Programme Educational Outcome (PEO)									
				1	2	3	4	5	6	7	8		
1	NNNV6164	4	Clinical Medicine	√									√
2	NNNV6144	4	Ocular Therapeutics II	√	√							√	
3	NNNV6184	4	Statistic							√			

*Elective Courses*

Bil	Kod Kursus	Kredit	Nama Kursus	Programme Educational Outcome (PEO)									
				1	2	3	4	5	6	7	8		
1	NNNV6324	4	Advanced Binocular Vision		√		√	√					
2	NNNV6724	4	Geriatric Optometry		√		√	√					√

Semester III

Bil	Kod Kursus	Kredit	Nama Kursus	Programme Educational Outcome (PO)									
				1	2	3	4	5	6	7	8		
1	NNNV6234	4	Clinical Management		√	√	√	√					
2	NNNV6238	8	Project					√	√	√	√		

## Synopsis of Courses for Masters of Clinical Optometry

### NNNV 6114 Ocular Therapeutics I

This course will use online and face-to-face teaching method. This course will cover different disciplines, that is pharmacology, pathology, immunology, microbiology, pharmacy and ophthalmology. The objective of this course is to prepare the students with comprehensive knowledge of ocular diseases and ocular therapeutics so that they have the ability to prescribe different ocular medications.

#### Basic Readings

Gupta, S.K. & Agarwal, R. (2014). Textbook on Clinical Ocular Pharmacology and Therapeutics. Jaypee Brothers Medical Publishers (P) Ltd.

Lee, G., Bishop, P. (2014). Microbiology and Infection Control for Health Professionals (5<sup>th</sup> ed.). Pearson, Australia.

Yanoff, M. (2014). Ocular Pathology (7<sup>th</sup> ed). Saunders.

Rich, R.R., Fleisher, T.A., Shearer, W.T., Schroeder, H., Frew, A.J. & Weyand, C.M. (2012). Clinical Immunology: Principles and Practice (4<sup>th</sup> ed). Saunders.

Velpandian, T. (2016). Pharmacology of Ocular Therapeutics. (1st ed.) Adis.

### NNNV 6116 Advanced Clinical Optometry

This course consists of lectures, practical sessions and presentation aimed to provide knowledge and skills to perform clinical examination of visual function and ocular diseases, as well as interpreting the examination results to reach a diagnosis. Students will be exposed to the appropriate way of conducting ocular examinations and their justifications, on patients with visual function anomalies and ocular pathology according to standard guidelines - Good Clinical Practice. Students must pass OSCE and clinical exam to pass the whole course.

#### Basic Readings

Samar K. Basak (2013). Atlas of Clinical Ophthalmology. 2<sup>nd</sup> Ed. Jaypee.

Brad Bowling (2016). **Kanski's Clinical Ophthalmology: A systematic approach**. 8<sup>th</sup> Ed. Elsevier.

Adam T. Gerstenblith and Michael P. Rabinowitz (2012). The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Diseases. 6<sup>th</sup> Ed. Lippincott Williams & Wilkins.

Lanning B. Kline, Rod Foroozan and Frank J. Bajandas (2012). Neuro-Ophthalmology Review Manual. 7<sup>th</sup> Ed. Slack.

**Neil R. Miller, Vivek R. Patel and Prem S. Subramaniam (2015). Walsh & Hoyt's Clinical Neuro-Ophthalmology: The Essentials**. 3<sup>rd</sup> Ed. Lippincott Williams & Wilkins.

### NNNV6214 Advanced Contact Lenses

This course is aimed at exposing the students to varieties of special contact lenses theoretically and practically. Students will be required to conduct presentation and critically analyses papers from contact lens. This will include topics on effect on ocular physiology, confocal microscopy, scleral lenses, orthokeratology, pediatric management and keratoconus. Workshops will also be conducted to enable students to learn how to use and interpret results obtained from new and advanced equipment in contact lens field.

### Basic Readings

Bennett, E.S. & Henry, V.A. (2013). Clinical Manual of Contact Lenses; Lippincott Williams & Wilkins.

Efron, N. (2012). Contact Lens Complications: Expert Consult - Online and Print, 3e; Elsevier Health Sciences

Nathan Efron, 2010. Contact Lens Practice (Google eBook); Elsevier Health Sciences.

Bhootra, A.K. (2014). Contact Lens: Fitting Guide. JP Medical Ltd.

Edgar, A. & Perrier, N. (2012). Keratoconus: Causes, Tests and Treatment Options. CreateSpace Independent Publishing Platform.

### NNNV6113 Methods & Ethics of Research

The course was conducted to develop skills to conduct research in the health sciences profession. Students will also be made aware of ethical issue in research. Students have to prepare a research proposal and research ethics application. The course will be conducted through virtual lectures, face to face and assessed through assignments and presentations.

### Basic Readings

Shamoo, A.E. & Resnik, D.B. (2009). Responsible Conduct of Research (2<sup>nd</sup> ed.) Oxford University Press.

Griffiths, F. (2009). Research Methods for Health Care Practice (1<sup>st</sup> ed). SAGE Publications Ltd.

Salazar, L.F., Crosby, R.A. & DiClemente, R.J. (2015). Research Methods in Health Promotion. (2<sup>nd</sup> ed.). Jossy-Bass.

Curry, L. & Nunez-Smith, M. (2014). Mixed Methods in Health Sciences Research: A Practical Primer (Mixed Methods Research Series) (1<sup>st</sup> ed). SAGE Publications Inc.

Coughlan, M. & Cronin, P. (2016). Doing Literature Review in Nursing, Health and Social Care. (2<sup>nd</sup> ed). SAGE Publications Inc.

### NNNV6164 Clinical Medicine

This course addresses a wide range of systemic conditions commonly seen in clinical practice. Systemic diseases with ocular manifestations will be discussed. The optometry student will gain an understanding of epidemiology, pathogenesis, clinical findings, treatment strategies, and referral guidelines. From the optometry perspective, students will learn when systemic diseases should be considered based upon ocular symptoms or findings on eye examination.

### Basic Readings

Kanski, J.J. & Thomas, D.J. (2014). The Eye in Systemic Disease. (2<sup>nd</sup> ed) Butterworth-Heinemann.

Roy, F.H. (2014). Ocular syndromes and systemic diseases. (5<sup>th</sup> ed) Jp Medical Ltd.

Ahima, R.S. (2016) Metabolic syndrome: A comprehensive textbook. Springer.

**Kumar, P. and Clark, M.L. (2016). Kumar and Clark's Clinical Medicine. (9<sup>th</sup> ed) Elsevier.**

Hammer, G.D. and McPhee, S.J. (2014). Pathophysiology of Diseases: An introduction to Clinical medicine. (7<sup>th</sup> ed) McGraw-Hill Medical.

### NNNV6164 Ocular Therapeutics II

This course will use online and face-to-face teaching method as well postings to ophthalmology clinics in order to give exposure to students to the various types of ocular diseases and the management of patients. The objective of this course is to prepare the students with knowledge of the pathophysiology of ocular diseases, diagnosing and therapeutic ocular management as well as co-management of patients with ocular diseases. Students must pass clinical exam to pass the whole course.

#### Basic Readings

Bruce, A.S., Loughnan, M.S. (2011). *Anterior Eye Disease and Therapeutics A-Z*. Edinburgh, Edinburgh: Churchill Livingstone Elsevier.

Onofrey, B.E., Skorin Jr, L. & Holderman, N.R. (2011). *Ocular Therapeutics Handbook: A Clinical Manual* (3<sup>rd</sup> ed). LWW.

Bowling, B. (2015). **Kanski's Clinical Ophthalmology: A Systemic Approach** (8<sup>th</sup> ed.). Saunders Ltd.

Garg, A. & Arshinoffm S.A. (2013). *Ocular Therapeutics* (3<sup>rd</sup> ed). Jaypee Brothers Medical Publishers (P) Ltd.

Rang, H.P., Ritter, J.M., Flower, R.J. & Handerson, G. (2015). **Rang & Dale's Pharmacology** (8<sup>th</sup> ed.). Churchill Livingstone.

### NNNV 6184 Statistic

This course introduces students to statistics in health sciences. It comprises of basic and advance statistics. The course is delivered through virtual and face to face lectures and assessed by assignments and examination.

#### Basic Readings

Ying Lu, Jiqian Fang, Lu Tian, Hua Jin. (2015) *Advanced Medical Statistics* (2<sup>nd</sup> ed.). World Scientific Publishing Co.

Singh, S. (2012). *Advanced Sampling Theory with Applications*. Springer.

Gerstman, B.B. (2104). *Basic Biostatistics: Statistics for Public Health Practice* (2<sup>nd</sup> ed.). Jones & Bartlett Learning.

Rosner, B. (2015). *Fundamentals of Biostatistics* (8<sup>th</sup> ed.) Cengage Learning.

Triola, M.F. & Triola, M.M. (2017). *Biostatistics for the Biological and Health Sciences* (2<sup>nd</sup> ed.) Pearson.

### NNNV6324 Advanced Binocular Vision

This course aims to strengthen the understanding of the mechanisms of binocular vision system, the development of sensory and motor adaptation of binocular vision anomalies, clinical assessment and management of various cases of anomalous binocular vision. Issues related to vision anomalies among special populations, interdisciplinary management approach is also presented in this course. The learning mechanism for the course includes online lectures, seminars, workshops and written examination.

### Basic Readings

Scheiman, M. & Wick, B. (2013). *Clinical Management of Binocular Vision Heterophoric, Accommodative, and eye Movement Disorder*. (4th ed.). LWW.

Arteaga, A.P. & Goyal, J. (2011). *Neuro-Ophthalmology (Instant Clinical Diagnosis in Ophthalmology)*. Jaypee Brothers Medical Publishers Pte Ltd.

Leigh, J.R. & Zee, D.S. (2015). *The Neurology of Eye Movements (Contemporary Neurology Series)*. (5th ed.). Oxford University Press.

Nelson, L.B. (2014). *Wills Eye Strabismus Atlas*. (2nd ed.). JP Medical Ltd.

Liguori, D. (2015). *Vision Therapy: Exercise Your Eyes and Improve Your Eyesight*. Create Space Independent Publishing Platform

### NNNV6724 Geriatric Optometry

This course consists of lectures, workshops and presentations. It explores the visual function changes amongst the elderly, such as contrast sensitivity, colour vision, transmission through the ocular media, visual acuity and visual fields. The psychological changes, definition of low vision, incidence and etiology, routine management, magnification of optical system and advanced optics of low vision involving the elderly will also be emphasized. Other available services available to the low vision patients in Malaysia will also be discussed.

### Basic Readings

Timothy L. Kauffman, Ronald W. Scott, John O. Barr and Michael L. Moran. (2014). *A Comprehensive Guide to Geriatric Rehabilitation*. 3<sup>rd</sup> Ed. Churchill Livingstone Elsevier.

Anne L. Corn and Jane N. Erin (2010). *Foundations of Low Vision – Clinical and Functional Perspectives*. 2<sup>nd</sup> Ed. AFB Press, American Foundation for Blind.

Nora G. Shirley (2015). *Orientation & Mobility for Independent Living: Strategies for Teaching Orientation and Mobility to Older Adults*. AFB Press, American Foundation for Blind.

David B. Elliot (2014). *Clinical Procedures in Primary Eye Care*. 4<sup>th</sup> Ed. Elsevier.

Andrew G. Lee and Hilary A. Beaver (2009). *Geriatric Ophthalmology: A Competency-based Approach*. Springer.

### NNNV6234 Clinical Management

This course is an attachment at Ophthalmology clinic in an identified hospital in order to give exposure to students to the various types of ocular diseases and at the same time learning the different management approaches. It is also instilling confidence, expertise and professionalism in students as professional optometrists. Throughout the course, students are required to examine and manage patients with vision problems under the supervision of ophthalmologist, and have a log book. The student is also required to write a detailed case write-up for each patient examined. At the same time, students are also exposed to conduct special diagnostic procedures using latest equipment in the optometry clinic, for example BIO, OCT, VF, A-Scan, etc. At the end of this course, the student should have acquired good clinical skills.

During this course, the postgraduate student is required to complete a total of minimum 10 working days of attachment. The student is required to log a minimum of 40 patients during the attachment duration. The student must see the following categories: infections and inflammations of the cornea, eyelids, conjunctiva and sclera; dry eyes; uveitis; cataracts, glaucoma; pediatric eye diseases; diabetic retinopathy; hypertensive retinopathy; maculopathy; eye trauma; contact lens related complications; etc. Students must pass clinical exam to pass the whole course.

#### Basic Readings

**Bowling, B. (2015). Kanski's Clinical Ophthalmology: A Systemic Approach (8<sup>th</sup> ed.).** Saunders Ltd.

Denniston, A. & Murray, P. (2014). Oxford Handbook of Ophthalmology (Oxford Medical Handbooks) (3<sup>rd</sup> ed.) Oxford University Press.

Oliver, J. & Cassidy, L. (2014). Ophthalmology at a Glance. (2<sup>nd</sup> ed.) Wiley-Blackwell.

Medina, A.A. & Townsend, J.H. (2016). Manual of Retinal Diseases: A Guide to Diagnosis and Management. Springer.

Bagheri, N. & Wajda, B. (2016). The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease. (7<sup>th</sup> ed.). LWW.

#### NNNV6238 Project

This course involves research on topics agreed upon by the student and supervisor. Topics for the project relies on the expertise of lecturers. Students must be supervised at - least by one supervisor from the Program of Optometry & Vision Science, UKM and an expert from the Department of Ophthalmology, Ministry of Health. Students should develop research methodology, prepare proposals, ethics application, collecting data, analyzing the data and write a thesis and manuscript under the supervision of the lecturer / supervisor. Students are encouraged to send the manuscript for publication.

#### Basic Readings

Shamoo, A.E. & Resnik, D.B. (2009). Responsible Conduct of Research (2<sup>nd</sup> ed.) Oxford University Press.

Wayne W. Daniel; Chad L. Cross. (2013). Biostatistics: A Foundation for Analysis in the Health Sciences. 10<sup>th</sup> ed. Wiley.

Wilfred C.G. Peh and Kwan Hoong Ng. (2016). Effective Medical Writing: The Write Way to Get Published. University of Malaya Press.

Bernard Rosner. (2011). Fundamentals of Biostatics. 7<sup>th</sup> ed. Brooks/Cole Cengage Learning.

Coughlan, M. & Cronin, P. (2016). Doing Literature Review in Nursing, Health and Social Care. (2<sup>nd</sup> ed). SAGE Publications Inc.