

Faculty of Medical Sciences

Dean: Professor Horace Fletcher B.Sc, MBBS, DM(O&G), FRCOG, FACOG

Dean's Message

On behalf of the Faculty and its members of staff I welcome all new and returning students to the University of the West Indies, Mona Campus.

Matriculation from the undergraduate level has earned you the opportunity to elevate academically, and we hope that you utilize this time to your benefit. As a postgraduate student there are greater expectations of you which in turn required a greater investment of your resources and skills.

Develop your minds and furnish yourselves with the requisite skills to become leaders in the nation, region and beyond. Be innovative and creative in your approach to your respective programmes as the knowledge you gain now can be the bridge to achieving your dreams.

About the Faculty

The Faculty of Medical Sciences offers over 52 graduate programmes administered across several Departments. Our graduate programmes range from clinical, taught, online and research degrees.

The Faculty is committed to achieving the strategic goals of the University, positioning itself as the leading educator in medicine and the allied health professions.

Clinical Programmes

There are over 20 DM clinical training programmes which are residency based. These include: Anaesthesia & Intensive Care, Haematology, Internal Medicine, Obstetrics and Gynaecology, Paediatrics, Pathology (Anatomical and Clinical), Psychiatry, Radiology, Surgery (General, Emergency Medicine, Orthopaedics, Cardiothoracic, ORL, Ophthalmology, Urology, Neurosurgery).

The duration of the programmes range from four to seven years depending on the specialty. They are open to persons with a medical degree and registerable with the medical Council of Jamaica, and in an appointed post. Each programme has a coordinator named by the Head of the Department and is managed at the Faculty level by Specialty Boards and the FMS Committee for Graduate Studies.

Taught Clinical Programmes

More recently, the Faculty has introduced clinical masters in response to the needs of the Region. Currently there are programmes such as the MSc Sports Medicine, MSc Sports and Exercise Medicine – Physiotherapy, MSc Physical Therapy, and MSc Medical Microbiology. These programmes include taught courses as well as either practica or lab work, and are governed both by the UWI Regulations and Faculty Regulations specific to each programme. All our programmes are approved by the Board for Graduate Studies and Research.

Taught Masters

There are a number of taught Masters programmes in the Faculty, including Nutrition, Public Health, Counselling and Forensic Sciences.

Research Degrees

The Faculty, predominantly through the Basic Medical Sciences (BMS), offers research degrees at the MPhil and PhD levels. Many of these degrees have a strong laboratory focus and all are governed by the UWI regulations governing research degrees. There are also MPhil/PhD programmes in Public Health and Nutrition. There are joint research projects between the BMS group and the clinical disciplines which increasingly contribute to the development of new pharmaceutical and new approaches.

Nursing

Within the Faculty there has been growth and expansion of postgraduate nursing education. Nursing currently offer Masters level training in Education, Administration, Family Nurse Practitioner, Mental Health and the recently introduced Gerontological Clinical Nurse.

You are invited to be a part of one of these exciting programmes!

Professor Horace Fletcher

Dean, Faculty of Medical Sciences

DEPARTMENT OF BASIC MEDICAL SCIENCES

Head: Dr. Paul Brown

The Department currently offers undergraduate, postgraduate and professional programmes to medical, basic medical and allied health professionals in the Faculty of Medical Sciences (FMS), and offers undergraduate and postgraduate programmes to science students in the Faculty of Science & Technology (FST).

The principal teaching objectives of the Department of Basic Medical Sciences at the undergraduate level are the training of medical student in the MB. BS programme, dentistry students in the D.D.S. programme, basic medical sciences students in the B.B. Med. Sci. programme, and physical therapy students in the B.Sc. Physical Therapy programme within the FMS, and the training of science students in the FST leading to B.Sc. degrees with majors in Biochemistry, Molecular Biology, Microbiology and Biotechnology. The Department also assists in the training of allied health professionals such as nurses and nursing anaesthetist students.

The Department offers postgraduate research training programmes leading to Ph.D. degrees in Anatomy, Biochemistry, Molecular Biology, Pharmacology, Physiology and Physical Therapy. The capabilities, research interests, facilities and human resources provide strategic opportunities in a large number of research areas encompassing medical and non-medical biomolecular sciences. Normally, for research degrees students with a first degree (*e.g.* B.Sc.) register for an M.Phil. degree in the first instance, and upgrade to Ph.D. registration is anticipated. The Department also offers the M.Sc. in Biomedical Research, which is an intensive research option completed in two years full time and facilitates transfer to our Ph.D. programmes. The award of our research degrees, M.Sc. Biomedical Research/M.Phil./Ph.D., is based on the submission of a thesis, and a public seminar, plus a *viva voce* examination for the Ph.D. degree only.

The Department also offers M.Sc. degrees in Forensic Science, Applied Pharmacology and Physical Therapy. These are mainly taught masters that operate on a fulltime or part time basis ranging from fifteen to twentyfour months. They also comprise a small research project.

GENERAL ENTRY

The requirement for direct admission to the MSc Graduate Programme is a BSc (Hon) Degree (Lower Second Class) with a minimal cumulative GPA of 2.0. The requirement for direct admission to the MPhil/PhD Graduate Programme is a BSc (Hon) Degree (First or Second Class) in the relevant subject. However, where a candidate does not hold a BSc Degree in the relevant subject, he or she may be considered for admission subject to:

QUALIFYING EXAMINATIONS

A qualifying examination is deemed necessary where the Board for Graduate Studies may be in doubt of the applicants suitability for admission.

The candidate is required to follow a prescribed qualifying course(s), and writing a qualifying examination, that includes a written examination, an oral examination, and a review paper, not exceeding 5000 words, in a specialist area prescribed by the Head of Department/Supervisor/Supervisory Committee.

The candidate must achieve an overall minimum pass mark of 50%.

DEPARTMENTAL EXAMINATIONS

A Departmental Examination is deemed necessary where a candidate is considered to be deficient in knowledge of the subject.

The candidate is required to follow a prescribed programme specified by the Board of Graduate

Studies and research on the recommendation of the Head of Department.

SPECIAL AREAS OF RESEARCH

The current areas of staff interest, in each section from which prospective graduate students may choose their area of work are as follows:

ANATOMY

Gross Anatomy
Histology
Embryology
Neuroanatomy
Reproductive biology
Teratology

BIOCHEMISTRY

Diabetiology
Environmental Microbiology and Biochemistry
Industrial Fermentation
Medical Biochemistry
Biotechnology
Natural Products and Plant Biochemistry

MOLECULAR BIOLOGY

Genetic predisposition to chronic diseases
Genetics of athletic performance
Molecular Microbiology
Molecular Plant Pathology
Molecular Plant Breeding
Plant-Microbe Interactions

PHARMACOLOGY

Choline supplementation on brain development
Pharmacological investigation of plant-derived products.
Experimental diabetes mellitus
Kindled convulsions
Regulation of tracheobronchial smooth tone.
Toxicology
Nitric oxide as a modulator of smooth muscle contractility.
Effects of alcohol on cardiac functions
Drug receptors and ion channels

PHYSIOLOGY

Gastrointestinal physiology
Endocrinology, Reproduction, Thyroid, Pancreatic physiology
Cardiovascular Physiology
Exercise and stress Physiology
Electrophysiology and behavioural neuroscience
Electrophysiological evaluation of brain function
Physiological assays of bioactive natural products
Haemorheological and haemodynamic changes in chronic diseases, e.g. Diabetes mellitus, Hypertension, Sickle cell disease, Systemic Lupus Erythematosus (SLE) and Pre-eclampsia
MPhil, PhD in Biochemistry, Molecular Biology
Programme Objectives
To train competent and problem-solving researchers for industry, biomedical sciences and academia.

Entry Requirements

BSc Degree with at least an Upper Second Class Honours or equivalent from a recognized university.

Areas of Research

Biochemistry: Human, Plant
Human Molecular Biology
Molecular Plant Pathology
Molecular Entomology
Industrial and Environmental Microbiology
Molecular Microbiology
Molecular Genetics
Post Harvest Biochemistry
Use of Natural Products in the treatment of Diabetes
Yam: Biochemistry and Biotechnology

Seminars

At least 1 Departmental seminar/year

Duration of programme

3 - 5 years part time/2 - 3 years full time for MPhil Degrees.
5 - 7 years part time/3 - 5 years full time for PhD Degrees.

Course (core)

Course Code	Course Name	No. of Credits
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BC60B: Understanding Research

Course Description: This course is designed to introduce new graduate students to the main elements of the research process, many of which are taken for granted. The course will ground the students in concepts such as research methodology (especially in developing and proving hypotheses), reviewing literature, and presentation of material, statistical analyses to determine significance, professional research ethics, biochemical calculations and separation techniques. The course will also introduce the students to bioinformatics.

Department Contact Information: 876 927 2290, 935 8794, 977 4342 (Tel), 876 977 7852 (Fax)

MSc Forensic Science

Specializations/Options:

(1) Forensic Chemistry, (2) Forensic Molecular Biology, (3) Forensic Pathology & Anthropology and (4) Forensic Toxicology

Programme Objectives:

On completion of this programme students are expected to:

1. Demonstrate an understanding of the areas that are essential to forensic science
2. Apply basic forensic science concepts to problem solving necessary for success in a modern forensic science laboratory
3. Demonstrate professional values, concepts and ethics
4. Provide expert testimony in the court
5. Demonstrate integration of knowledge and skills through a variety of experiences and tools such as comprehensive examinations, thesis, and research project.

Entry Requirements

The minimal admission criteria for the program are outlined below:

- i. BSc degree with a minimal cumulative GPA of 2.0 (Lower Second Class Honours) from a recognized post-secondary institution
- ii. Medical Degree (Candidates for Forensic Pathology and Anthropology)

The following coursework must have been passed at the undergraduate level:

i. Two semesters of Level-1 Chemistry. Two semesters of Level-2 Chemistry (including Analytical Chemistry) for candidates intending to pursue Forensic Chemistry.

ii. One semester of Statistics/Biostatistics.

iii. Two semesters of Level-1 Biology/Genetics

Seminars: Minimum 2 seminars

Duration of programme: 12 months F/T; 18 months P/T

Programme Structure

The programme combines rigorous scientific and laboratory training with exposure to the breath of forensic science disciplines and further specialization in one of the following four areas: forensic chemistry, forensic molecular biology, forensic pathology and anthropology, and forensic toxicology. Students will also be trained in statistical evaluation of forensic evidence, legal testimony related to testing procedures, results and interpretations, proper chain of custody procedures, expert witness courtroom testimony, report writing, good laboratory practices and the value of professional ethics. The format will include lectures, practical sessions, seminars, tutorials and a research project.

The Master of Science degree requirements are met upon satisfactory completion of the minimum of 37 credits of which 24 credits make up the core courses for all disciplines. Thirteen (13) credits are specific to the disciplines of forensic chemistry, forensic molecular biology, forensic pathology and anthropology, or forensic toxicology. Students are allowed to take an additional 6 credits outside the area of their specialization.

Course (Core)

Course Code	Course Name	No. of Credits	No of Coursework
FSCI6101	Fundamentals of Forensic Science	3	1
FSCI6102	Crime Scene Management	3	1
FSCI6103	Forensic Laboratory Quality Assurance	2	1
FSCI6201	Legal and Ethical Issues in Forensic Science	3	1
FSCI6202	Moot Court	2	1
FSCI6301	Statistical Analysis of Forensic Evidence	3	1
FSCI6401	Research Methods & Project	6	2
FSCI6402	Graduate Seminar	2	1

Electives

Course Code	Course Name	No. of Credits	No of Coursework
FSCI6302	Population Genetics	3	1
FSCI6501	Forensic Chemistry I	3	1
FSCI6502	Forensic Chemistry II	3	1
FSCI6503	Forensic Chemistry Analysis Laboratory	2	1
FSCI6601	Forensic Serology	3	1
FSCI6602	Forensic Serology Laboratory	2	1
FSCI6603	Forensic Molecular Biology	3	1
FSCI6604	Forensic Molecular Biology Laboratory	2	1
FSCI6701	Forensic Anthropology	3	1
FSCI6702	Forensic Anthropology Laboratory	2	1
FSCI6703	Forensic Pathology I	3	1
FSCI6704	Forensic Pathology II	3	1
FSCI6705	Forensic Pathology Laboratory	2	1
FSCI6801	Forensic Toxicology I	3	1
FSCI6802	Forensic Toxicology II	3	1
FSCI6803	Forensic Toxicology Laboratory	2	1

FSCI6101 Fundamentals of Forensic Science

Course Objectives

This course will provide a broad introduction to forensic science, the history and overview of the disciplines. Students will be introduced to the theory, concepts and practices used in the analysis of biological and physical evidence, analysis of drugs, forms of trace evidence, document examination, identification of biological fluids, personal identification, quality assurance/quality control (QA/QC), chain of custody procedures, the forensic laboratory, expert

testimony and the fundamentals of crime scene investigation. The importance of application of forensic science to the criminal justice system also its role in international human rights issues, identification the victims of genocide and mass disasters will also be discussed. Guest lecturers will be invited to cover selected topics. Throughout the semester students will be provided with case studies and journal articles and be expected to read and prepare for discussions.

FSCI6102 Crime Scene Management

Course Objectives

This course will provide an in-depth study of crime scene procedures including recognition, protection, documenta- tion techniques, and collection of biological and physical evidence; crime scene documentation (photography, crime scene sketching, information gathering, report writing, measurements, fingerprint processing, blood pattern analysis, ballistics, scene search procedures; and reconstructions from evidence and scene patterns), chain of custody. Scene investigations will include burglary, homicide, arson, motor vehicle, and sudden and unexplained death. Throughout the semester students will be provided with journal articles and be expected to read and prepare for discussions.

FSCI6103 Forensic Laboratory Quality Assurance

Course Objectives

To introduce the principles of quality assurance, current industry standards for quality systems in forensic science disciplines.

FSCI6201 Legal and Ethical Issues in Forensic Science

Course Objectives

It is important for forensic scientists to have a thorough understanding of the legal and ethical underpinnings for their work. These are important in establishing and maintaining a responsible and reputable forensic science service. The role that a forensic scientist plays in the litigation process will be discussed. Students will learn the appropriate guidelines for professionalism and conduct in expert witnessing. Students will also be exposed to both the general principles that underlie the criminal and constitutional law as well as to some specific crimes recognised by the criminal law. Legal rules regarding the search and seizure of physical evidence, standards of reliability and relevance of scientific evidence in court, the scientific interpretations and analysis of physical evidence and the development and application of professional codes of ethics will also be discussed. Several case studies will be used.

FSCI6202 Moot Court

Course Objectives

This interactive course builds upon the material discussed in Legal and Ethical Issues in Forensic Science regarding the criminal trial process, the role of the forensic witness and the presentation of scientific testimony and physical evidence in court. Students will actively participate in presenting testimony as well as critiquing the performance of others in a mock court setting. Instructors will utilize reports and projects prepared in other courses to provide the subject matter for the students testimony.

FSCI6301 Statistical Analysis of Forensic Evidence

Course Objectives

This course will discuss the statistical and probabilistic evaluation of forensic evidence. Among the areas to be covered are: laws of probability, conditional probability, genetic variation in human populations, likelihood ratio, Hardy-Weinberg equilibrium, Bayes theorem, evaluation of evidence, sampling and interpretation of statistical results. Statistical analysis in transfer evidence, paternity testing and mixtures, and presenting evidence.

FSCI6302 Population Genetics

Course Objectives

Population genetics provides the background for the forensic scientist to understand the importance of population size, migration, mating, alleles and genotypes in DNA profiling and using DNA databases. This course will examine the principles of population genetics and the practical application of these principles to understanding genetic variation within and between populations, the significance of Hardy-Weinberg equilibrium, race and ethnicity. Throughout the semester students will be provided with journal articles and be expected to read and prepare for class discussions.

FSCI6401 Research Methods and Project

Course Objectives

Laboratory research in forensic science subject areas. The original research problem will be written up as a formal document and submitted as part of the requirements to fulfill a Master of Science degree. Data generated from research will form the basis for the Graduate Seminars (FSCI 6402). Students will be exposed to research methodologies prior to starting their project. Students will be required to perform their research in semester 2 and during the summer. Research can be performed on campus or at an external laboratory/ agency.

FSCI6402 Graduate Seminar

Course Objectives

A seminar series involving presentations from students on their research project, journal articles, case reviews and from invited speakers. Each student will also be required to present a one-hour seminar on the results of their research. Attendance at all seminars is compulsory.

FSCI 6501 Forensic Chemistry I

Course Objectives

This course emphasizes the use of various sensitive analytical techniques including pyrolysis-GCMS, micro-FTIR, GPC, capillary electrophoresis, spectroscopy and microscopy in the analysis of trace evidence including paint, inks, dyes, fibers, explosives and plastics. Tool marks and serial number restoration, footwear and tyre mark impression evidence will be presented. Throughout the semester students will be provided with journal articles and be expected to read and prepare for class discussions.

FSCI 6502 Forensic Chemistry II

Course Objectives

This course will introduce students to the investigation of arson and fire investigations. Students will also be introduced to explosive materials and the investigations of explosions. Sampling protocols, packaging, recovery, analytical techniques and data analysis will also be discussed.

FSCI 6503 Forensic Chemistry Laboratory

Laboratory Objectives

This laboratory-based course will provide hands-on experience with the methods, techniques and instruments used to analyze trace evidence such as glass, paint, hairs and fibers, with the ultimate goal of identifying and comparing known trace evidence materials with questioned samples.

FSCI 6601 Forensic Serology

Course Objectives

A comprehensive study of the theory and practice of isoenzyme, serum protein and immunoglobulin genetic markers in human blood and body fluids. Electrophoretic and isoelectric focusing techniques. Interpretation of genetic marker in blood individualization. Biochemical and immunologic procedures for blood and body fluid identification; typing of Rh, MNSs and other red cell antigens in blood and blood stains; antiserum selection and evaluation; ELISA

techniques. Throughout the semester students will be provided with journal articles and be expected to read and prepare for class discussions.

FSCI 6602 Forensic Serology Laboratory

Laboratory Objectives

Students will be given an opportunity to apply the principles of forensic serology to actual biological samples. Techniques utilized will include screening tests, methods used to confirm the presence of specific biological material(s), microcrystalline tests, catalytic color tests, antigen-antibody interactions, gel diffusion and microscopic identification of cellular material. Serology cases will be assigned to each student where they are expected to analyse the case, write a report, and present their findings at seminars.

FSCI6603 Forensic Molecular Biology

Course Objectives

This course will discuss the theory and application of human genetics and molecular biology to testing of biological evidence. DNA structure, replication and organization of the human genome and types of genetic variation occurring in humans will be covered. The history of DNA analysis and current PCR based methods for testing of autosomal STR loci, Y chromosome STR loci and mitochondrial DNA will be covered. Case examples with commonly encountered forensic issues, such as degradation, mixture analysis, artifacts in PCR testing, DNA profile interpretation, statistical analysis of results and selecting the appropriate DNA test based on the case scenario and serological results will be discussed. Advanced DNA topics including SNPs, microbial DNA, mitochondrial DNA, and cutting-edge DNA technologies will be covered. Throughout the semester students will be provided with journal articles and be expected to read and prepare for class discussions.

FSCI6604 Forensic Molecular Biology Laboratory

Laboratory Objectives

Students will be exposed to state-of-the-art instrumentation such as capillary electrophoresis, PCR and real-time PCR instruments. Laboratory sessions will include several DNA extraction techniques, human DNA quantification, PCR amplification of STR loci, electrophoresis and DNA profile analysis. DNA cases will be assigned to each student where they are expected to analyse the case, write a report, and present their findings at seminars.

FSCI 6701 Forensic Anthropology

Course Objectives

A comprehensive study of the bones and teeth of the human skeleton emphasizing methods of identification, construction of the biological profile (age, sex, ancestry, stature), and trauma

analysis. This course will present the methods and theory behind the analysis of skeletal remains from medico-legal contexts. Topics will include human skeletal anatomy, odontology, establishing the biological profile, trauma analysis, taphonomy, and how anthropological analyses can assist the pathologist with determining cause and manner of death. In addition to the text books, students will be provided with journal articles throughout the semester and will be expected to read and prepare for class discussions.

FSCI6702 Forensic Anthropology Laboratory

Laboratory Objectives

Students will learn how to identify osseous material from non-osseous material, differentiate human from non-human bone, and determine the medico-legal significance of human remains. Students will use gross morphology, odontology and osteometry (measurement of bones) to develop the biological profile (sex, age, ancestry, stature). Students will be provided with the opportunity to observe different types of skeletal trauma and evaluate the effects of taphonomic changes to bone.

FSC 6703 Forensic Pathology I

Course Objectives

This course will focus on the role of the medical practitioner in the investigation of crime and death. Students will be exposed to theoretical knowledge and practical skills relating to the medico-legal investigation of wounds and death and will be taught to observe and analyse evidence at death scenes. Other elements of forensic pathology will include autopsy techniques, interpretation of autopsy findings, taking into account crime scene information and medical history, determining post-mortem interval, death by drowning, asphyxia and by suicide; sudden and unexpected deaths. Throughout the semester students will be provided with journal articles and be expected to read and prepare for class discussions.

FSCI 6704 Forensic Pathology II

Course Objectives

Instruction will include techniques of forensic odontology and anthropology that are used to support forensic pathology, particularly in identifying unknown remains. Topics related to drugs and drug related deaths, physical abuse of children, child sexual abuse and sexual offenses in adults will also be covered. Throughout the semester students will be provided with journal articles and expected to read and prepare for class discussions.

FSC 6705 Forensic Pathology Laboratory

Laboratory Objectives

Forensic Pathology taught with a strong emphasis on practical learning, with students

undertaking a set number of autopsies under supervision. Students will be required to draft a clear and comprehensive autopsy report that will accurately communicate to the relevant authorities, the cause, mechanism and manner of death.

FSCI 6801 Forensic Toxicology I

Course Objectives

Forensic toxicology I will deal with qualitative and quantitative analysis of biological specimens for the presence of alcohol, drugs (marijuana, cocaine, the major opiates, the common hallucinogens and amphetamines), and/or poisons and their corresponding metabolites. The principles of pharmacodynamics and pharmacokinetics as they apply to forensic toxicology, the molecular mechanisms of toxicity, drug toxicity, toxins and poisons, drug classifications will also be discussed. An overview of analytical methods used in the analysis of drugs and toxins e.g. GC, TLC, GC/MS, LC/MS and HPLC will be discussed. Throughout the semester students will be provided with journal articles and expected to read and prepare for class discussions.

FSCI 6802 Forensic Toxicology II

Course Objectives

This course will provide a study on the pharmacology, chemistry and toxicology of chemical toxins, poisons, illegal drugs, performance enhancing drugs and carcinogens. Analytical methods used in isolation and identification of illicit drugs and their metabolites in biological samples and other forensic evidence. Throughout the semester students will be provided with journal articles and be expected to read and prepare for class discussions.

FSCI 6803 Forensic Toxicology Laboratory

Laboratory Objectives

This laboratory-based course will provide students an opportunity to apply the principles of forensic toxicology to actual biological samples. Students will be required to isolate and identify toxins e.g. illicit drugs and their metabolites in biological samples and other forensic evidence using methods of analysis such as: GC, TLC, GC/MS, LC/MC and HPLC. Toxicology cases will be assigned to each student where they are expected to analyse the case, write a report, and present their findings at seminars. Students will also work with cases presented by the Forensic Pathologist.

Department Contact information:

Department of Basic Medical Sciences Mona Campus Kingston 7, Jamaica Telephone: 1-876-927-2290 Telephone: 1-876-977-4342 Fax: 1-876-977-7852 Email: Email:

Programme Coordinator: Professor Wayne McLaughlin.

Post Graduate Diploma in Forensic Science

Duration: Diploma is 12 months full-time and 24 months part-time.

Areas of Specialization: Diploma in Forensic Science areas of: Forensic Biology, Forensic Toxicology and Crime Scene Investigation.

Courses (Core)

Course Code	Course Name	No. of Credits
FSCI6607	Forensic DNA	3
FSCI6608	Forensic DNA Laboratory	2

Courses (Electives)

Course Code	Course Name	No. of Credits
FSCI6205	Crime Scene Reconstruction	3
FSCI6206	Crime Scene Reconstruction Laboratory	2
FSCI6504	Forensic Firearm Investigation	3
FSCI6505	Forensic Firearm & Tool mark Analysis Laboratory	2
FSCI6605	Forensic Entomology	3
FSCI6606	Forensic Entomology Laboratory	2

TOTAL NUMBER OF CREDITS FOR DIPLOMA: 24 credits

Courses

FSCI6607 Forensic DNA

This course will discuss the techniques for DNA analysis of forensic evidence including DNA isolation, purification and quantification, PCR and based methods for testing of autosomal STR loci, Y chromosome STR loci and mitochondrial. Case examples with commonly encountered forensic issues, such as degradation, mixture analysis, artifacts in PCR testing, DNA profile interpretation, statistical analysis of results and selecting the appropriate DNA test based on the case scenario and serological results will be discussed.

FSCI6608 Forensic DNA Laboratory

Students will be exposed to state-of-the-art instrumentation such as capillary electrophoresis, PCR and real-time PCR instruments. Laboratory sessions will include several DNA extraction techniques, human DNA quantification, PCR amplification of STR loci, electrophoresis and DNA profile interpretation. DNA cases will be assigned to each student where they are expected to analyse the case, write a report, and present their findings at seminars.

FSCI6205 Crime Scene Reconstruction

This course will provide students with the theory and scientific methods used in the reconstruction analysis of a crime scene. The students will develop a basic understanding of the discipline of bloodstain pattern analysis, trajectory dynamics, fire investigation and recording of the crime scene.

FSCI6206 Crime Scene Reconstruction Laboratory

This course will provide students with hands on experience in identifying finger prints, documenting and establishing parameters in bullet trajectory, bloodstain and pattern evidence, pattern identification and crime scene reconstruction. The course will enhance basic skills and develop the student to a basic competency level as a crime scene reconstruction analyst. The methodology and techniques needed to properly analyse and reconstruct the scene are emphasized

FSCI6504 Forensic Firearm Investigation

This course is an introduction to firearms investigation with emphasis on the history of firearm, internal ballistics, external ballistics, terminal ballistics, gunshot residue (GSR), wound ballistics and microscopy. Students will learn how to differentiate between the different areas in forensic ballistics, develop an appreciation of the comparison microscope as well as interpret ballistics evidence.

FSCI6505 Forensic Firearm and Tool Mark Analysis Laboratory

Laboratory sessions will cover firearms analysis, the fundamentals of firearms identification, the technical details of firearms and the documentation of analytical findings. . Students will receive training in the basics of forensic ammunition and firearms examination, learning classification and research skills. This course will be offered as an elective.

FSCI6605 Forensic Entomology

This course is an introduction to forensic entomology and will provide a basic entomology background, with descriptions of practical techniques and the legal aspects of using insects to estimate post-mortem intervals (PMI) and crime solving.

FSCI6606 Forensic Entomology Laboratory

Students will be exposed both classical and molecular identification of forensically important insects; techniques in collecting, preserving and rearing insects; molecular identification; calculating PMI through detailed and precise data collection

Programme Coordinator:

Professor Wayne McLaughlin
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Mona Campus
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MSc Applied Pharmacology

Programme Objectives: The MSc programme is an 19-month part-time programme with the didactic component completed in 9 months. It is designed to offer a broad-based learning experience to produce individuals with the necessary theoretical and problem-solving skills necessary for the success in careers with more emphasis on drug development, drug sales, pre-clinical research, clinical research and influencing health policy and marketing. The MSc research component is to be completed in maximum nine months with emphasis on research that can impact health policy decisions or marketing strategies. The programme is an entirely new programme; no similar programme previously existed at UWI or any other University in Jamaica. **This programme is self-financing.**

On completion of this programme students will be able to:

1. Demonstrate an understanding of the fundamental concepts of pharmacology
2. Apply basic pharmacology in appreciating how drugs are used therapeutically
3. Apply basic pharmacology experimental procedures in an understanding of how drugs are developed
4. Demonstrate an understanding about how individual patient factors can influence drug action
5. Demonstrate an understanding of the need of regulations to ensure drug efficacy, standard and safety
6. Apply market information that is relevant to drug sales.
7. Prepare, and execute projects proposal.
8. Demonstrate integration of knowledge and skills through a variety of experiences and tools such as comprehensive examinations, executing research project and thesis development.
9. Apply knowledge to impact changes that can positively influence policy decisions.

Entry Requirements:

The minimal admission criteria for the MSc Applied Pharmacology program is:

1. a first degree in a Clinical or Pre-Clinical discipline, such as, Biochemistry, Physiology, Pharmacology, Pharmacy with a cumulative GPA of 2.0 (Lower Second Class Honours) from a University recognized by The University of the West Indies.

OR

2. a first degree in a Science disciplines with a cumulative GPA of 2.0 (Lower Second Class Honours) from a University recognized by The University of the West Indies with evidence of completion of at least University level-1 Chemistry and Biology.

Duration of programme: 19 months

Programme Structure: The courses will be delivered through didactic lectures, laboratory practicals, audio and video demonstrations

Enrollment Option: Part-Time

Courses(Core):

Course Code	Course Name	No. of Credits
PHAL6001	Fundamentals of Pharmacology	2
PHAL6002	Pharmacology by structure and function I	3
PHAL6003	Experimental Pharmacology I	2
PHAL6004	Basics Statistical Analysis for Pharmacology	3
PHAL6005	Pharmacology by structure and function II	3
PHAL6006	Experimental Pharmacology II	2
PHAL6007	Basic Research Skill for Pharmacology	2
PHAL6008	Drug Development, Clinical Trials and Regulations	3
PHAL6009	Graduate Seminars	2
PHAL6017	Research project: Development & Execution	6

Electives

Course Code	Course Name	No. of
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		Credits
PHAL6010	Drugs of Abuse: Psychopharmacology	3
PHAL6011	Biopharmaceutics & Clinical Pharmacokinetics	3
PHAL6012	Paediatric & Geriatric Pharmacology	3
PHAL6013	Pharmaceutical Sales & Marketing Operation	3
PHAL6014	Pharmacoeconomics	3
PHAL6015	Pharmacovigilance and Pharmacoepidemiology	3
PHAL6016	Introduction to Pharmaceutical Law and Ethics	3

TOTAL NUMBER OF CREDITS FOR DEGREE : 37

PHAL6001/FUNDAMENTALS OF PHARMACOLOGY

Course Description:

This Module will examine:

- drug permeation, drug lipid solubility and ionization, role of gastric emptying time, pH, blood flow, surface area, gastrointestinal metabolism and first pass through the liver on bioavailability, routes of administration.
- modified absorption: depot preparations, delayed release preparations drug and food effects on absorption.
- **drug distribution:** apparent volume of distribution, plasma water, extracellular water, total body water, tissue concentration, plasma protein binding, blood-flow to tissues, tissue concentration of drugs, blood-brain-barrier, placental transfer, mammary transfer of drugs redistribution of drugs
- **drug metabolism:** phase I and phase II metabolism, consequences of drug metabolism, effects of genetic factors on biotransformation, effects of environmental factors on, biotransformation, effects of age and sex on biotransformation drug-drug interactions during, metabolism, effects of diseases on drug biotransformation,, **dosing, dosing calculation, bioequivalence.**
- **drug excretion:** excretion via the kidneys, filtration, tubular secretion, reabsorption, concept of ion-trapping, excretion via the liver biliary secretion, enterohepatic circulation excretion via gastrointestinal tract excretion via lungs, excretion via minor routes
- **Methods used to measure and evaluate pharmacokinetic**

Module 2: Pharmacodynamics and Toxicity

This Module will examine:

- **the concept of drug receptors, receptor types, agonism, antagonism, dose response effect, types of drug receptor interactions, second messenger systems**
- graded dose response relationships, potency, efficacy, EC₅₀ or ED₅₀, K_d
- variation in responsiveness to drugs: idiosyncratic drug response, tachyphylaxis and tolerance, hypersensitivity response.
- **methods used to evaluate pharmacodynamics factors**
- acute toxicity, chronic toxicity, lethal dose assessment, common types of poisons and management
- Drug formulation, delivery, innovator drug, generic drug
- Pharmacogenetics and its importance in drug therapy

PHAL6002 /PHARMACOLOGY BY STRUCTURE AND FUNCTION I

Course Description: These learning outcomes will be examined through the following divisions

- Autonomic and Neuromuscular Pharmacology
- Cardiovascular and Renal Pharmacology
- Endocrine Pharmacology
- Reproductive Pharmacology
- Gastrointestinal Pharmacology
- Ocular Pharmacology
- Respiratory Pharmacology
- Pharmacology of drugs for plasma lipid disorders
- Anticoagulant/Antithrombotic/Fibrinolytics
- Iron, Vitamins and other drugs for haemopoietic disorders
- Cancer chemotherapy
- Microbial and parasitic chemotherapy
- The importance of combination therapy,
- Development of and strategies to prevent drug resistance.

PHAL6003/EXPERIMENTAL PHARMACOLOGY I

Course Description: The learning outcomes of this course will be delivered through hands-on practical exposure. Students will be provided with a workbook, which will outline the background, aims and methods for each of six experimental procedures.

- Preparation of physiological solutions used for in vitro investigations
- Examination of dose response relationship of agonists
- Schild plot analysis of drug agonism-antagonism relationship
- Evaluation of drugs on the cardiovascular system.

- Evaluation of drugs on rat aortic strip
- Evaluation of drugs on urine output.

PHAL6004/BASIC STATISTICAL ANALYSIS FOR PHARMACOLOGY

Course Description:

The learning outcomes of this course will examine statistical concepts under the following headings:

- Sampling: randomization, placebo, control, subject withdrawal and replacement.
- Exploratory (research question generation) versus confirmatory (hypothesis testing) trials
- Parametric versus non-parametric statistical testing, analysis of variance, correlation and linear regression
- Inferential statistics, mean, median, standard deviation, standard error, normal distribution, probability p-value interpretations and outliers
- Power, sample size estimation, types I and type II errors, missing data handling, sample size re-evaluation.
- Measure of treatment benefits: odd ratio and relative risk ratio, numbers needed to treat, confidence intervals
- Analysis of survival: the hazard ratio, Kaplan-Meier curves
- Meta-analysis evaluation

Emphasis will be placed on drug related data.

PHAL6005/ PHARMACOLOGY BY STRUCTURE AND FUNCTION II

Course Description:

The learning outcomes of this course will be examined through the following divisions:

- Antiinflammatory and Immunomodulators
- Analgesics
- Local anaesthetics
- Anti-psychotic
- Anti-depressants
- General anaesthetics
- Sedative/hypnotics
- Antiparkinsons
- Antiepileptics
- Alcohol, cocaine, heroin, marihuana and other drugs of abuse

PHAL6006/ EXPERIMENTAL PHARMACOLOGY II

The learning outcomes of this course will be delivered through hands-on exposure. Students will be provided with a workbook, which will outline the background, aims and methods for each of following to be completed in six sessions.

- animal models of diabetes and assess the effects of antidiabetic drugs (2 sessions)

- animal models of convulsions and assess anticonvulsants
- animal models of pain and the effects of analgesics
- animal models of inflammation and the effects of anti-inflammatory drugs (2 sessions)

Course Description: The learning outcomes of this course will be delivered through hands-on exposure. Students will be provided with a workbook, which will outline the background, aims and methods for each of following to be completed in six sessions.

- animal models of diabetes and assess the effects of antidiabetic drugs (2 sessions)
- animal models of convulsions and assess anticonvulsants
- animal models of pain and the effects of analgesics
- animal models of inflammation and the effects of anti-inflammatory drugs (2 sessions)

PHAL6007/ BASIC RESEARCH SKILLS FOR PHARMACOLOGY

Course Description: These learning outcomes will be examined through emphasizing the purpose of research and training students in standardized research methods necessary to develop project proposals, including:

- the need for background research
- how to effectively find the relevant information
- Identifying whether the available information facilitates hypothesis generation
- Identifying research needs

Focus group discussion will be used to explore study design skills, review bioethics and develop skills to facilitate critical paper review. Library based assignment will facilitate individual development of the students in writing complete proposals with specific emphasis on drug related research. Delivery of this content on bioethics (history, relevance) will be facilitated through the use of online software available to The University of the West Indies.

PHAL6008/DRUG DEVELOPMENT, CLINICAL TRIALS AND REGULATIONS

Course Description:

The learning outcomes will be examined through two modules:

Module 1: Preclinical and clinical process of drug development

- preclinical testing procedures
- The phase of premarketing clinical trials
- Example of drug companies
- The approval process for new drugs by Drug Regulations bodies
- The concept of innovator drug and generic drug
- Testing procedure associated with approval of a generic drug

- The importance post-marketing surveillance

Module 2: Conducting clinical trials and the clinical trial assistant

- Protocols for conducting drug clinical trials
- Role of personnel in drug companies, academic institutions, clinical research centres clinical research organizations and regulatory bodies in clinical trials.
- The importance of ensuring Regulatory Oversight and Human Subject Protections through Institutional Review Boards and Informed Consent.
- The importance of proper record keeping, data management and quality assurance.
- Subject recruitment, subject retention, monitoring drug compliance, accountability and study close-out.
- Practical exposure to the role of a drug clinical trial assistant

PHAL6009/ GRADUATE SEMINAR

Course Description:

The learning outcomes will be delivered through participation in weekly oral presentation sessions, involving paper review, project proposal presentation, research project updates to provide students with adequate opportunities to develop skills in oral presentation and constructive critique of scientific data.

PHAL6010/DRUGS OF ABUSE: PSYCHOPHARMACOLOGY [ELECTIVE]

Course Description: The learning outcomes of this course will be examined through firstly reviewing the relevant aspects of neurophysiology/neuroanatomy. The term drug abuse will be defined and the abuse potential of the following agents will be examined:

- Alcohol
- Tobacco
- Caffeine
- Cannabis
- Heroin
- Morphine
- Cocaine
- Amphetamines
- Hallucinogens
- Volatile solvents
- commonly abused prescription drugs (e.g. sedatives, antidepressants)
- Over the counter medicines (e.g. antihistamines)
- Designer drugs
- Anabolic steroids.

Students will be engaged in independent research of the health burden through review of current literature.

**PHAL6011/BIOPHARMACEUTICS & CLINICAL PHARMACOKINETICS
[ELECTIVE]**

Course Description

The learning outcomes of this course will examine principles that relate to therapeutic drug monitoring, highlighting the need and training students in designing individualizing drug therapy. Students will be engaged in problem solving sessions to develop skills that will allow them to contribute to a patient management team.

PHAL6012/PAEDIATRIC AND GERIATRIC PHARMACOLOGY [ELECTIVE]

Course Description

The learning outcomes of this course will comprehensively examine pharmacokinetics and pharmacodynamic implications of drug use in the paediatric and geriatric populations. Drug use in elderly may require adjustment because of decrease renal or cardiovascular function. Many elderly patients have chronic diseases and may be on more than one medication. Drugs are generally not tested in children during clinical trials; thus the course will describe how drug therapy is tailored for children, as well as emphasize the reasons for variability from adult dosing.

Students will learn how to design geriatric and paediatric patient drug therapy through problem solving sessions.

PHAL6013/ PHARMACEUTICAL SALES & MARKETING OPERATION [ELECTIVE]

Course Description:

The learning outcomes of this course will be examined through emphasis on sales principles proven to be effective in promoting drug sale. Students will be engaged to develop their own sales plan through use of the principle explored and independent research.

PHAL6014/ PHARMACOECONOMICS

Course Description

The learning outcomes of this course will begins with defining standard theoretical models of economics and then emphasize pharmacoeconomics. Students will be engaged in developing the skills for cost benefit analysis specifically focusing of drug therapy. They will learn how to calculate drug cost and assesses drug benefits. Seminar presentations will form a significant part of the delivery of the learning outcomes to facilitate the training of the students.

PHAL6015/PHARMACOVIGILANCE AND PHARMACOEPIDEMIOLOGY

Course Description: The learning outcomes of this course will be examined through three

modules:

Module 1: Definitions, aspects and importance

- Adverse drug reaction, adverse drug effect, serious adverse drug reactions
- Limitations of phase I, II and III clinical trials
- Classification of ADRs
- Populations at risk of ADRs: elderly, paediatric, women comorbidity
- Practices which increase ADR risk: multidrug use and counterfeit drugs.
- Challenges posed by non-prescribed agents, e.g. herbal preparation use
- ADR monitoring forms, Individual case safety report (ICSR)
- Periodic Safety Update Report (PSUR)

Module 2: Application and data processing and validity

- Causality assessment
- Preventability
- Database use
- Signal detection and confirmation
- Impact of drug monograph
- Impact in benefits analysis
- Impact on to changes in drug advisory, warnings
- Challenges of monitoring non-prescription agents
- Pharmacoepidemiology

Module 3: National and International Regulations

- Importance of and developing a national Pharmacovigilance
- Importance of international Pharmacovigilance
- Functions of World Health Organization
- The International Conference on Harmonization (ICH) guideline
- Council for International Organizations of Medical Sciences (CIOMS) guideline in ADR monitoring
- European Union (EU) guidelines
- Signal generation through ADR databases
- Regulations to facilitate data sharing

MSc Physical Therapy

Programme Objectives: The overall aim of the programme is to educate physical therapists who are knowledgeable, self-assured, adaptable, reflective, humanistic, and service-oriented and who, by virtue of critical thinking, life-long learning and ethical values, render independent judgments concerning patient/client needs. More specifically the curriculum should:

1. Prepare Physical Therapists who are highly skilled in clinical reasoning and the use of evidence to optimize health, function and participation of individuals in society
2. Prepare Physical Therapists to assume leadership roles in professional activities.
3. Develop clinicians who will become active in research and foster the practice of evidence-based physical therapy
4. Allow physical therapists to obtain qualifications at a level that increases their marketability internationally.

Entry Requirements:

1. All persons entering the Masters in Physical Therapy programme should have an honours BSc degree in Physical Therapy (BScPT).
2. Candidates with a diploma will be admitted once they have completed qualifying courses from the BSc programme. These will be determined on assessment of the students' transcripts and will be courses not previously taken in the diploma programme.

Duration of programme: 16 months (4 semesters, including one summer period)

Programme Structure:

This is a full-time or part-time programme of study which consists of a total of 39 credits, consisting of lecture and lab components. There is a total of 13 courses. Courses will be offered over 4 semesters (including 1 summer session)

Enrollment Option: Part time, Full Time

Courses (Core):

Course Code	Course Name	No. of Credits
PHTH6010	Evidence-based practice	3
PHTH6001	Motor Control and Motor Learning	3
PHTH6006	Musculoskeletal- Differential Diagnosis	3
PHTH6002	Graduate Research Methods	3
PHTH6013	Research Project	6

PHTH6011	Health Promotion and disease and injury prevention: Physical Therapy Perspectives	3
PHTH6003	Management in Physical Therapy Practices	3
PHTH6004	Educational Methods in Physical Therapy	3
PHTH6005	Physical Therapy for Acute and Chronic Multisystem Conditions	3
PHTH6007	Technology in Rehabilitation	2
PHTH6008	Contemporary Physical Therapy Issues Seminar	2
PHTH6012	Clinical Reasoning	3
PHTH6009	International Perspectives of Rehabilitation	2

TOTAL NUMBER OF CREDITS FOR DEGREE: 39 Credits

PHTH6010/ Evidence-based practice

This advanced course builds on students' foundation of evidence -based practice (EBP) skills through the development of an important clinical question related to a selected topic. An in-depth search and analysis of the evidence will be conducted through the use of Critical Appraisal Templates (CATs). Strategies for successfully implementing EBP in their work environments will be identified.

PHTH6012/ Clinical Reasoning Skills

This course lays the theoretical foundation for clinical reasoning, expert practice, and reflection in the practice of physical therapy. Integration of these concepts in clinical problem solving assures consideration for current evidence, and the integration of professional values and beliefs in addressing the individual rehabilitation and cultural needs of patients. The opportunity to begin development of a plan for life-long learning and professional growth is included.

PHTH6001/ Motor Control and Motor Learning

This course lays the theoretical foundation for clinical reasoning, expert practice, and reflection in the practice of physical therapy. Integration of these concepts in clinical problem solving assures consideration for current evidence, and the integration of professional values and beliefs in addressing the individual rehabilitation and cultural needs of patients. The opportunity to begin development of a plan for life-long learning and professional growth is included.

PHTH6006/ Musculoskeletal-Differential Diagnosis

This advanced course expands the basic musculoskeletal evaluation of physical therapists to include the subjective and physical screening for medical conditions. These additional skills enhance their ability to differentiate musculoskeletal problems from other medical conditions that involve musculoskeletal signs and symptoms. Preparation of physical therapists to be the health care professional at the point of entry for health care services is emphasised so that potential contraindications to physical therapy interventions and the need for referral to other health care professionals are identified.

PHTH6013/Research Project

This course is the culmination of the independent research study proposed in Semester 2. At the beginning of this course, the student will have received approval of the proposal and conducted the study under the supervision of an assigned faculty member. By the end of this course, the student will present a full, written report of the study following the guidelines for preparing the thesis provided by Graduate Studies and Research.

PHTH6002/ Graduate Research Methods

This course covers principles of research methods with application to physical therapy practice and research. Emphasis is placed on critical evaluation of published research relevant to physical therapy and techniques required for the design and implementation of a research project. Application of statistical methods for analysis will also be covered.

PHTH6011/ Health Promotion and Disease and Injury Prevention

This course covers the role of physical therapists in health promotion and disease prevention. It also provides an opportunity for students to develop, market and implement programmes for various health conditions across the lifespan and in different settings.

PHTH6003/Management in Physical Therapy Practices

Potential opportunities and career paths that can lead to mid-level and executive management positions for physical therapists are presented in the context of the complex world of contemporary health-care organizations and their unique business models. Current issues that impact the roles of leaders and managers and their responsibilities in five different types of health care settings are presented.

PHTH6004/ Educational Methods in Physical Therapy

Teaching and learning paradigms are applied to the range of the education responsibilities of physical therapists - from individual patient encounters to community-based health education programs. The influence of health belief systems, behavioural theories (motivation), and social marketing on teaching and learning are integrated into the development and evaluation of student performance by physical therapists in their clinical and classroom teaching.

PHTH6005/ Physical Therapy for Acute and Chronic Multi-System Conditions

This advanced course builds on prior coursework for in-depth study of the pathophysiology and medical management of patients with acute cardiopulmonary conditions, and patients with multi-system, complex conditions in which secondary cardiopulmonary problems occur. The development of a quality physical therapy program for these patients that is based on current evidence, safety considerations, sound business principles, and the evaluation of patient outcomes is emphasized. The role of exercise in these conditions is also emphasized.

PHTH6008/ Contemporary Physical Therapy Issues Seminar

Weekly seminars provide the opportunity for students to lead discussion groups that include faculty and invited guests. The topics reflect contemporary practice issues, and also provide the opportunity for feedback on their own research proposals.

PHTH6007/ Technology in Rehabilitation

This course addresses the impact of new technology on the ability of physical therapists to gather and analyse data on human movement. The increasing use of computerized feedback and robotic interventions is critiqued. Plans are identified for the incorporation of this technology into physical therapy practices when resources are limited.

PHTH6009/ International Perspectives of Rehabilitation

This course traces the global development of the philosophy and services for people with physical disabilities. The role physical therapy plays in the health care systems and social services of selected countries is emphasized, as contemporary issues facing the physical therapy profession are analyzed. A vision for the physical therapy profession will be proposed.

Department Contact Information:

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Section of Physical Therapy
Department of Basic Medical Sciences
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Programme Director: Dr. Carron D. Gordon

MSc Biomedical Research

Programme Objectives: The M.Sc. Biomedical Research programme provides comprehensive research training to prepare for entry into PhD programmes or other research oriented careers in government, public sector, independent organizations or research centres.

Entry Requirements :

Applicants will apply for registration in the M.Sc. Biomedical Research and declare the discipline of interest offered by the Department. A transcript and two referee supports will be required. Applicants must hold at least BSc degree, BBMedSc degree in an appropriate discipline at least at the lower second degree. Applications will be reviewed internally and acceptance will be dependent on the identified needs of research supervisors. An interview process may be requested. Accepted applicants will be registered as M.Sc. Biomedical Research and assigned to a Chief Supervisor. All registered student in this programme have the opportunity to transfer to any of the Ph.D. programmes in the Department.

The programme facilitates research across the disciplines of Anatomy, Biochemistry, Applied Microbiology, Molecular Biology, Pharmacology, Pharmacy, Physiology and Toxicology.

Current research projects include:

- Mechanistic studies of chronic disease processes, such as diabetes, hypertension.
- Development of animal models of diseases.
- Assessment of plants, including Cannabis and foods for medicinal value.
- Assessment of therapy use in the management of chronic disease.
- Assessment of drug addictions.
- Influencing memory development.
- Tissue culture research in inflammation and cancer.
- Plant micropropagation.
- Eradication of plant diseases.
- Microbial and parasitic disease research.
- Advancing the agricultural benefits of traditional and non-traditional plants through genetic modifications
- Benefit analysis of drugs.
- Advances in exercise physiology
- Forensic analysis of crime scenes

Seminars :

Four paper reviews and one research update over two semesters.

Duration of programme: The programme has two possible tracks; the MSc track, completed in five semesters, (including one summer semester) or transfer to the PhD track at the end of six

semesters (including two summer semesters).

Programme Structure: The duration of the MSc programme requires successful completion of the 35 credits with core courses BAMS6011: Understanding Research (6 credits). BAMS6012: Laboratory Rotation (6 credits), BAMS 6014: Reading for the Thesis Seminars (2 credits), BAMS6015: Research data collection & Reporting (8 credits), a graduate writing course (3 credits) and graduate course electives (10 credits) of which a minimum of 6 credits must be courses assigned to the Department of Basic Medical Sciences. Students requiring foundation knowledge in the selected discipline will be required to complete undergraduate courses for which no credits will be awarded. Students in the MSc Biomedical Research Programme have the option of transferring to PhD at the end of 24 months from the start of the programme on completion of 27 credits (*excluding BAMS6015*) with at least a 60% grade on all courses and pass on BAMS6014. Students interested in transferring to the PhD programme must gain the support of the designated Chief Supervisor and must complete the PhD Transfer exam in September of the next academic year (*year 3*). The transfer exam will involve an oral examination of the student's research results, the PhD transfer proposal and a review of the performance of the student in taught components, as well as the overall recommendation of the Chief Supervisor of the potential for timely success of the project to the PhD level. Successful completion of the PhD programme requires students to complete the research work in an additional 3-5 years full time/5-7 years part-time. The following activities guided by the Chief Supervisor will also form part of the PhD training:

- paper from the dissertation work prepared in a format ready for submission to a peered review journal or patent submission under consideration
- tutorial assistance training.

Enrollment Option: Full-Time

Course Code	Course Name	No. of Credits
BAMS 6011	Understanding Research	6
BAMS 6012	Laboratory rotation	6
BAMS 6014	Reading for the Thesis Seminars	2
LANG 6099	Advanced Academic English Language Skills	3
BAM 6015	Research data collection & Reporting	8

Electives

Students will be required to complete ten credits of graduate level electives course selected based on their specific research interest. Foundation courses at the undergraduate level may also be required for which credits will not be awarded to the degree.

TOTAL NUMBER OF CREDITS FOR DEGREE: 35 for MSc Degree/27 for PhD Transfer

Course Description

BAMS6011 Understanding Research

This course aims to

1. provide comprehensive, progressive, and in-depth curricula-combining theory and practice in biomedical research.
2. help students build a comprehensive set of talents in research methods to become leaders in disciplined inquiry in the basic medical sciences.
3. help students develop and sustain the knowledge, skills, and dispositions to effectively design, conduct, and analyze research.
4. provide a framework for quality research that will expand the knowledge base in the student's field of study.

BAMS 6012 Laboratory Rotation

This course aims to ensure students have adequate mentorship to facilitate the development of their research projects and to promote understanding of what is required to conduct independent research of significant impact. The learning outcomes are focused on the student receiving mentorship from academic staff of the University to foster an understanding of what is required to develop independent research and thus ensure readiness to pursue PhD research. Students will be required to spend time in the laboratory of the Chief Supervisor and two other mentors. These other mentors must be University staff eligible to supervise research students and likely co-supervisors for the students.

BAMS6014 Reading for the thesis

The learning outcomes will be delivered through participation in weekly oral presentation sessions, involving paper review, research project updates to provide students with adequate opportunities to develop skills in oral presentation and constructive critique of scientific data.

BAMS6015 Research data collection & Reporting

Experimentation is expected to begin during summer semester of year 1 and continue until February semester 2, year 2. Ideally, students should use the last three months to focus on completing written report for submission at the end of semester 2 year 3. The MSc Biomedical Research is expected to give evidence of comprehensive reading and understanding of the literature relevant and show a clear understanding of the research methods and findings. The research is expected to make at least some independent contribution to knowledge or understanding in the subject area in which the student is working. If the project has the potential to significantly contribute to the body of knowledge, the student can be invited to develop the research for PhD track.

Programme Coordinator:

Dr Maxine Gossell-Williams
Department of Basic Medical Sciences
Mona Campus
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DEPARTMENT OF MEDICINE

Head: Dr. Rosemarie Wright-Pascoe

DOCTOR OF MEDICINE (MD)

The following regulations shall apply to the degree of Doctor of Medicine (MD).

Entry Requirements

The following candidates are eligible to apply for registration for the MD degree:

Graduates in Medicine of the UWI or of a University Medical School approved by the University of the West Indies of at least two years standing, and who are fully registered as medical practitioners in the territory or territories in which the research project will be carried out.

A candidate who is not a graduate of the University of the West Indies must hold or have an Academic post in the Faculty of Medical Sciences of the University of the West Indies, or must have engaged in (I) scientific work directly relevant to his/her profession, or (II) in the practice of Medicine or Surgery in Institutions or Teaching Hospitals approved by the University of the West Indies.

Assessment by thesis shall be as prescribed by the appropriate regulations of the University of the West Indies for Doctoral Theses.

Course of Study

The MD shall be awarded on the basis of examination or thesis.

The candidate will be required the scope of his/her research project with a senior member of the Faculty appointed as his Supervisor. It is expected that this will occur at an early his Supervisor. It is expected this will occur at an early stage and preferably before embarking on the project.

The thesis must embody a critical account of the results of personal observation or original research in any branch of knowledge related to the curriculum for the Degree of Bachelor of Medicine and Bachelor of Surgery, and should normally be submitted within five (5) years, but not less than three years, of approval of the research proposal.

Submission of the thesis to the university must be as prescribed by the regulations of the University of the West Indies for Doctoral thesis and must be accompanied by a declaration that the work has been carried out solely or in the cases where the candidate has been a member of a research group, which has been conducted predominantly by the candidate. In the latter instance, work, which has not been carried out by the candidate must be identified in the thesis.

DEPARTMENT OF SURGERY, RADIOLOGY, ANAESTHESIA AND INTENSIVE CARE

Head: Professor Newton Duncan, MB BS, DM (Surgery), FACS

The department offers the following programmes leading to the Doctor of Medicine in:

Surgery
Radiology
Anaesthesia and Intensive Care
Emergency Medicine

DM SURGERY

The Department Of Surgery offers full-time degree courses leading to the awarding of a Doctor of Medicine [DM (Surg.)] degree. Degrees are offered in General Surgery, Otorhinolaryngology, Cardiothoracic Surgery, Orthopaedic Surgery, Urology, Neurosurgery, Paediatric Surgery and Ophthalmology. Training periods range from five to six years. All programmes aim at providing exit qualifications for graduates to practice independently and at Consultant level. Since its inception in 1972, there have been 100 graduates in Surgery up to December 2008. Graduates are scattered throughout the Americas from Trinidad and Tobago to the United States of America, with 95% currently practicing in the region.

Specializations/Options

General Surgery, Otorhinolaryngology, Cardiothoracic Surgery, Orthopaedic Surgery, Urology, Neurosurgery, Paediatric Surgery and Ophthalmology.
Programme Objectives

All programmes aim at providing exit qualifications for graduates to practice independently and at Consultant level in a Surgical Discipline throughout the Caribbean.

ENTRY REQUIREMENTS

Applicants should be graduates in Medicine from a Medical School or University recognized by the UWI and be fully registered to practise in the Caribbean. Preference will be given to those who excel in the surgical fields during their undergraduate training. Time spent in gaining post-internship experience in Emergency Medicine, along with ATLS and ACLS certification, will be of benefit to candidates seeking entry into surgical programmes.

Duration of programme: Between five and six years depending on the specialty/subspecialty.

Programme Structure

The courses are divided into two parts. The programmes have a common two-year Part 1 training period spent in rotations of three months each in various surgical disciplines. During this period there are structured teaching in Applied Anatomy, Physiology and Pathology along with Principles of Surgery in general. At the end of this training period there will be a written and oral examination in each of the four disciplines.

Following successful completion of the Part 1 examination, candidates proceed into the second part of the training. This is spent exclusively in the chosen speciality using six-month rotations. The penultimate year is available for elective rotations in any approved institution. In this part of the course the candidate is required to prepare a Casebook with commentaries or a research project before presenting for the final examination. To graduate, the candidate should have successfully completed the training period with respect operative experience, have satisfactory assessments, submitted and obtained acceptance of the casebook, and be successful in the written and oral Part II examinations.

Courses

Applied Anatomy
Physiology
Pathology
Principles of Surgery in General

Department Contact Information:

Dr. Mark Newnham Department of Surgery University of the West
Indies 876-927-1270 876-702-4992
Programme Coordinator: Dr. Mark Newnham

DM Radiology

Programme Objectives: Training of General Radiologists

Entry Requirements: MBBS or equivalent medical degree recognized by the UWI and be fully registered to practice in the Caribbean.

Duration of programme:

Four (4) years

Programme Structure:

A four year residency in General Radiology.

Residents are trained at the University Hospital of the West Indies.

There are two exams:

DM Part 1 at the end of the first year

DM Part 2 at the end of the fourth or final year

Residents are rotated through all imaging modalities offered at the University Hospital of the West Indies including:

Plain radiography

Fluoroscopy

Computed Tomography

Ultrasound

Magnetic Resonance Imaging

Residents gain experience in all imaging specialties including:

Neuroimaging

Head & Neck radiology

Obstetrics

Abdominal imaging

Paediatrics

Emergency imaging

Musculoskeletal imaging

Breast Imaging

Interventional radiology

There are daily structured teaching sessions

Multidisciplinary sessions are done monthly in conjunction with the following specialties:

Emergency Medicine

Otolaryngology

Urology

Neurosurgery & Neurology

Paediatrics

These sessions give residents the opportunity to interact in an academic setting with their colleagues in other specialties

On-the-job hands on instruction is a core part of the programme

In the first year, the focus is on Physics, Anatomy, Techniques, Radiation Protection and Radiation Biology

The three years post part 1 are spent exposing the resident to all facets of General Radiology.

There is an option for a one year elective, generally done in year three (3)

A research project is a core requirement and must be completed and accepted prior to sitting the final DM exam (DM part 2).

Department Contact Information:

Section of Radiology Department of Surgery, Radiology, Anaesthesia & Intensive Care
Mona Campus
Jamaica
Phone: 876-927-1270

Email: surradic@uwimona.edu.jm

Programme Coordinator: Dr. Peter Johnson

DM Anaesthesia and Intensive Care

Programme Objectives: To provide the graduate with the knowledge and clinical skills to function as a consultant anaesthetist and intensivist, equipped for independent practice in a hospital-based and/or stand-alone facility.

Entry Requirements

(See general regulations Doctor of Medicine)

Applicants will be eligible for entry after completing their senior house officer year.

Candidates will be required to submit a written application and will be required to attend an interview to be eligible for selection to the programme.

Duration of programme: 4 years

Programme Structure:

The programme will be a minimum of four years (see Exemptions) from the date of entry and consists of two parts:

Part I:

The first Part is of two years duration. It aims to ground the postgraduate student in the basic sciences that underpin the practice of anaesthesia and intensive care. It therefore includes extensive basic and applied physiology and pharmacology, physics and relevant anatomy. Included also is an introduction to research methodology that informs the student of evidence-based medicine and its application to everyday clinical practice. There will be exposure to general and regional anaesthesia as pertains to obstetric, emergency, general surgical, gynaecological and urological surgery and management of critically ill patients and their

transport

Part II:

The second part is also of two years duration. It may include a period not exceeding one year, in the penultimate year only, spent as an elective in a hospital, which can provide the candidate with experience not readily available in the hospital to which he/she is employed.

Part II includes rotations through all anaesthesia subspecialties. These include cardiothoracic, faciomaxillary, otorhinolaryngology, paediatric, obstetric, ambulatory, neuroanaesthesia, diagnostic imaging anaesthesia and conscious sedation. Rotation through intensive care, preanaesthetic services, acute and chronic pain services are also required. Teaching and training in teaching methods and research methodology are integral components. of the programme.

Emphasis is also placed on the responsibilities of professional life, medical ethics and the law, health care management, information technology and independent practice.

All students should appreciate the need for ongoing research in the field and are encouraged to cooperate with research efforts of department/division members.

A steady progression of specialty skills, judgment, professional and ethical responsibility and clinical independence is expected over the four years of training. Students are required to keep a record of all anaesthetics and procedures performed. In addition they are required to complete a predetermined list of minimal competency in cognitive and procedural skills felt to be fundamental to the training of specialists in anaesthesia and intensive care.

Research Project

All students must submit to the Campus Committee for Graduate Studies through the Director of the Postgraduate programme, at least six months before the final (Part II) examination, a research project. This should form a distinct contribution to the knowledge of the subject presented. It must be of satisfactory literary standard and should attain standards suitable for publication in a peer reviewed journal. It should not exceed 20,000 words but must not be less than 8,000 words and must follow the University's Guide for the Preparation of Theses, Research Papers and Project Reports. Every student will be required to:

pose relevant research questions, formulate hypotheses, design simple research projects, understand the statistical evaluation of such projects, and know how to draw valid conclusions;

develop and maintain a system of continuous learning in order to keep abreast of major clinical and research developments;

learn to apply audit principles to their own work, and to clinical practice

Courses

	Course Name	Duration
Year I	Introduction to Anaesthesia	10 wks
	Anaesthesia in special patients	“

Regional & Emergency “
Anaesthesia Pharmacology

Year II Physiology, Anatomy, Physics
& Clinical Measurement of:
 Respiratory System
 Cardiovascular System
 Neurological & Gastrointestinal Systems
 Renal, Haematological & Endocrine Systems

Year III-IV	Clinical Rotations	
	ICU	6 months
	Neuroanaesthesia	3 months
	Obstetric anaesthesia	3 months
	Paediatric anaesthesia	3 months
	Cardiothoracic anaesthesia	3 months
	Ac & Chronic Pain	3 months
	Research	6 months

Department Contact Information:

Section of Anaesthesia & Intensive Care UHWI, Mona, Kingston 7Tele: 1 876 977 2484Fax: 1 876 977 6160 Email: uwimona.anaesthesia@gmail.com

Programme Coordinator: Dr. Hyacinth Harding-Goldson

DM Emergency Medicine

Programme Objectives: To train the candidate to Consultant level so that he/she may be capable of running an Emergency Department and able to care for the varying emergencies that may present.

Entry Requirements:

Graduate of a Medical school recognized by the University of the West Indies who has completed internship training.

Duration of programme: Four years

Programme Structure:

The postgraduate Emergency Medicine Programme is a four-year residency programme starting in July (Mona) or January of each year. Six months of each year are spent in emergency room rotations. The other six months are spent rotating through relevant subspecialty areas including anaesthesia, child health, internal medicine, surgery, orthopaedics, obstetrics and gynaecology, family medicine and psychiatry. Anaesthesia is mandatory as an early rotation to be done in the

first year. However, there is flexibility in the sequence of the rotations in the other disciplines. Candidates are encouraged to do one of the two three-month A&E periods in the fourth year at an approved emergency room in a regional or international teaching hospital. A maximum of 6 months may be spent outside of the Caribbean (A&E and elective). Overseas elective rotations can be undertaken with the approval of the Coordinator of the Emergency Medicine Residency Program.

Qualifying exams are administered after two years (Part I) and then the exit (Part II) exam.

Yearly rotations for D.M. Emergency Medicine programme

Year 1	Year 2	Year 3	Year 4
A&E (6)	A&E (6)	A&E (6)	Family Medicine/ Ophthalmology (3)
Anaesthetics (3)	Medicine (3)	Orthopaedics/ Radiology (3)	Elective (3)
Paediatrics (3)	Surgery (3)	Psych/O&G (3)	A&E (6)

In addition a book must be prepared over the four-year residency period consisting of ten case discussions and a research project. This casebook must be completed and submitted 6 months before final exams.

In addition, all emergency medicine residents must complete the American Heart Association Advanced Cardiac Life Support (ACLS) and American College of Surgeons Advanced Trauma Life Support (ATLS) courses by the end of their first year of training. The Paediatric Advanced Life Support (PALS) or Advanced Paediatric Life Support (APLS) course is to be completed during the second year of the programme.

Department Contact Information:

Department of Surgery (876) 927-1270
Emergency Medicine Division 977-0723/927-1620-9 ext 3012

Programme Coordinator: Dr. Jean Williams-Johnson

MSc Sports Medicine

This modular training programme is designed to provide fundamental skills in sports medicine and exercise physiology. The course details the management of injuries, the prevention of injuries, the use of exercise in controlling chronic diseases and provides the doctor with the expertise to impart nutritional, psychological and pharmacological guidance to athletes. It prepares doctors to become team physicians as well as to organize medical facilities for large events.

Programme Objectives:

Application of applied anatomical knowledge to understand injury and recovery
 Understanding of the physiological changes due to exercise and apply this to athletes and non-athletes.
 Ability to diagnose, investigate and treat common sporting injuries
 Ability to monitor rehabilitation of injuries
 Appreciation of biomechanics of walking, running and some sports with understanding of how this leads to injury.
 Appreciate differences in athletes of different ages, gender, or condition (eg. pregnancy).
 Appreciation of nutrition pathways and energy systems of exercise.
 Enhance recovery through nutritional principles e.g. enhancement of muscle glycogen
 Thorough understanding of effects of dehydration and its prevention
 Ability to formulate exercise prescriptions for patients with medical conditions e.g. cardiac and rheumatoid patients
 Ability to formulate exercise programmes for fitness and sports
 Understanding of prohibitive drugs and techniques and World Anti-doping Agency Regulations.
 Application of sports psychology and its role for individuals and teams
 Demonstrate understanding in research methods and biostatistics culminating in a research project.

Entry Requirements

Registered medical practitioners with two years professional experience.
 Application
 Two Referee Forms
 Registration License
 Transcript

Duration of programme: 2 years minimum

Programme Structure:

The design is of distance teaching through weekly topics consisting of 14 week each semester produced on DVD. The weekly tasks would include reading material through photocopied articles, web based links for other articles, and Videos/CD Rom didactic lectures. Questions designed to emphasis the main points of the week will be provided in the package and answers will be provided at weeks 6 and 13. Approximately four hours will be required to complete a weeks work. There would be teleconferences on weeks 7 and 14. At the end of the semester, there will be a three hour written examination, conducted in the doctors own country, supervised by a mutually agreed upon invigilator.

Courses

Course Code	Course Name	No. of Credits
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SPSF6001	Upper Body Injury	3
SPSF6002	Lower Body Injury	3
SPSF6003	Applied Sports Medicine	3
SPSF6004	Exercise Physiology (Medical Application of Exercise)	
SPSF6005	Sports Physiology	3
SPSF6006	Sports Science	3
SPSF6007	Sports Nutrition/Biomechanics	3
SPSF6009	Sports Psychology/Pharmacology	3
SPSF6011	Research Methods/Biostatistics	3
SPSF6012	Research Projects	3
SPSF613	Practicum I	2
SPSF6014	Practicum II	2

Upper Body Injuries (SPSF 6001)

Functional anatomy of head, neck, trunk and upper limb
Common sporting injuries of this region: mechanism and pathogenesis
Investigation and management of these injuries

Lower Body Injuries (SPSF 6002)

Functional anatomy of abdomen, pelvis and lower limbs
Common sporting injuries of this region: mechanism and pathogenesis
Investigation and management of these injuries

Applied Sports Medicine (SPSF6003)

Investigations of sports injuries
Prevention of sports injuries
Rehabilitation
Paediatric sports medicine
Team doctor and events coordinator including legal aspects
Advances in sports enhancement; genetics

Exercise Physiology (Medical Application of Exercise) (SPSF6004)

Exercise physiology of cardiovascular system
Fitness testing
ECG and stress testing
Benefits of exercise in chronic conditions e.g. diabetes, hypertension
Pregnancy and exercise

Sports Physiology (SPSF6005)

Exercise and respiratory function including exercise induced asthma
Temperature regulation

Adaptations to different climates; underwater, high altitude
Sleep physiology, and traveling adjustments

Sports Science (SPSF6006)

Muscle anatomy, physiology and function
Training mechanisms for strength and endurance
Factors comprising fitness testing
Endocrine aspects of exercise

Sports Nutrition/Biomechanics (SPSF6007)

Fluid requirements and dehydration
Fluid regimes and sports drinks
Energy requirements and sources
Nutritional components in sports enhancement
Eating disorders
Biomechanics of walking and running including gait analysis
Biomechanics of throwing
Sports specific biomechanics: swimming, cricket bowling, cycling
Shoes and orthotics

Sports Psychology/Pharmacology (SPSF6009)

Psychology of the successful athlete
Performance enhancing techniques; goal setting, imagery
Anxiety disorders
Team dynamics
Psychology in recovery from injuries
Pharmacokinetics
Athletes on prescribed medications
Performance enhancement drugs
WADA anti-doping regulations and lists
The doctors bag

Research Methods and Biostatistics (SPSF6011)

Medical epidemiology
Questionnaires
Basic statistics
Application of statistical software e.g. SPSS
Preparation for research project

Research Project (SPSF6012)

Formulation of research project and guidance through its execution and writing

Practicum I (SPSF6013)

To be held at Mona campus (one week)

Examination techniques, group discussions and practical points on upper limb and thorax.

Practicum II (SPSF6014)

To be held at Mona campus (one week)

Examination techniques, group discussions and practical points on lower limb and back.

Contact Information:

MSc Sports Medicine Faculty of Medical Sciences UWI, Mona Telephone: 927-1620 ext 3051 or 977-6714

Programme Coordinator: Dr. Akshai Mansingh

MSc Sports and Exercise Medicine Physiotherapy

Programme Objectives:

Apply knowledge of anatomy to the understanding of injury and recovery

Demonstrate an understanding of the physiological changes due to exercise and apply this to athletes and non-athletes.

Diagnose and treat common minor sporting injuries

Recognize major injuries and appropriately refer to physicians

Implement and monitor progress of rehabilitation of injuries

Demonstrate an appreciation of the biomechanics of walking, running and other sports with an understanding of how this leads to injury.

Appreciate differences in athletes of different ages, gender, or condition (eg. pregnancy).

Demonstrate an understanding of nutrition pathways and energy systems of exercise.

Understand methods of enhancing recovery through the application of nutritional principles e.g. enhancement of muscle glycogen

Understand the effects of dehydration and its prevention

Formulate and supervise exercise programmes for fitness and sports

Understanding of prohibitive drugs and doping methods used in sports. In depth understanding of the World Anti-doping Agency Regulations.

Apply the knowledge of sports psychology to the management of individuals and teams

Formulate and supervise exercise prescriptions for patients with medical conditions e.g. cardiac patients, diabetics, hypertensive patients

Demonstrate an understanding of the role of exercise in the prevention or control of many chronic conditions e.g. diabetes mellitus, hypertension, ischaemic heart disease, osteoporosis, arthritis, and renal failure.

Appreciate the use of exercise in the promotion of healthy lifestyles in all populations

Demonstrate understanding and application of research methods and biostatistics culminating in a research project.

Entry Requirements (MSc Sports and Exercise Medicine - Physiotherapy):

Application

Candidates with a minimum of lower second class pass in the Bachelors degree in Physical Therapy will be eligible for admission into the programme. Those with degrees and diplomas awarded from a University other than UWI will be admitted on the basis of a transcript evaluation to determine prior knowledge and level of training. Candidates should be fully registered in their country of practice. Candidates with Diplomas in Physical Therapy (UHWI) awarded prior to 2004 will also be considered on the basis of a transcript evaluation to determine prior knowledge and level of training. Whereas involvement in Sports and Exercise medicine is preferred, it is not absolutely necessary for consideration.

Two Referee Forms
Registration License
Transcript

Duration of programme: 2 years minimum

Programme Structure:

The modular distance training course is delivered through DVDs containing coursework, lectures and demonstrations. There are 9 courses as well as 4 practica held initially at Mona but can be additionally held in other territories.

Evaluation for each course takes place through a written examination in the candidates home territory. A final Objective structured clinical examination (OSCE) on practical aspects of the course will be conducted following the last practicum. Log book notations of other practical aspects are to be maintained.

Courses (Core)

Course Code	Course Name	No. of Credits	Semester
SPPT6101	1. Upper Body	3	1,2, Summer
SPPT6102	2. Lower Body	3	1,2, Summer
SPPT6103	3. Applied Sports Medicine	3	1,2, Summer
SPPT6104	4. Exercise Physiology	3	1,2, Summer
SPPT6105	5. Applied Exercise Physiology	3	1,2, Summer
SPPT6106	6. Exercise in Specific Conditions	3	1,2, Summer
SPPT6109	7. Sports Psychology/Biomechanics	4	1,2, Summer
SPPT6111	8. Research Methods & Biostatistics	6	1,2, Summer
SPPT6112	9. Research Project	6	1,2, Summer
SPPT6113	10. Practicum I	1	1,2, Summer
SPPT6114	11. Practicum II	1	1,2, Summer
SPPT6115	12. Practicum III	1	1,2, Summer

1. Upper Body

To detail the anatomy of upper body musculoskeletal system as it applies to sports and exercise medicine

To detail sports injuries to the upper body including emergencies

To highlight principles of rehabilitation of injuries and protocols of management

2. Lower Body

To detail the anatomy of lower body musculoskeletal system as it applies to sports and exercise medicine

To detail sports injuries to the lower body including emergencies

To highlight principles of rehabilitation of injuries and protocols of management

3. Applied Sports Medicine

The physiology of muscle function

Energy Systems in the body and their role in the different types of exercise

Principles of training and testing specific to exercise type

The role of exercise to promote wellness

Specific considerations for children involved in sports

Effects of dehydration and its prevention

4. Exercise Physiology

To highlight normal cardiovascular and respiratory changes to exercise

To highlight abnormalities and pathologies in cardiovascular and respiratory changes to exercise

To introduce investigations of the cardiovascular and respiratory systems.

To introduce principles of physical testing

To introduce the principles of sleep medicine

5. Applied Exercise Physiology

To examine the role of the team physiotherapist and the interaction with other members of the Sports Medicine team

Orientation to legal implications and responsibilities in sports medicine

To develop an appreciation for the specifics of nutrition related sports and athletes

Introduction to different imaging modalities in sports

Effects of genetics on sports

To develop an appreciation of medications used in sports medicine

To become familiar with anti-doping regulations in sports

Introduction to alternative and complementary medicine in sports

6. Exercise in Specific Conditions

To detail unique physiology of special populations
To detail unique physiology in specific chronic diseases
To examine the relationship between physical activity, health, diet, and obesity, and the role of the physiotherapist in facilitating involvement in physical activity
Introduction of the relationship between exercise and medications

7. Sports Psychology/Biomechanics

To introduce key principles of sports psychology and their application in motivation and behaviour modification
To outline specific methods to enhance focusing and concentration
To orient the candidate to overuse conditions and exercise addiction
To inculcate basic appreciation of biomechanics of different activities and sports
To highlight injuries based on biomechanical abnormalities

8. Research Methods & Biostatistics

To introduce the principles research methodology
To design a research project
To introduce basic statistics and analysis
To familiarize candidates with commercial software for statistical analysis

9. Research Project

Completion of data collection (submitted to ethics committee during Research Methods and Biostatistics course)
Statistical analysis of data
Writing of project using format of journal publication (West Indies Medical Journal)
Submission for assessment to supervisor and external examiner
This is an independent course with a pass / fail assessment
Project to be no longer than 20,000 words following the format from the Thesis Guide of the University of the West Indies.

10. Practicum I

To become proficient in sourcing literature from online databases
To formulate thoughts on the Research project through interaction with resource persons in the Faculty
To view fitness battery tests
To view training methods

11. Practicum II

To become proficient with devising exercise protocols in special populations
To work through case descriptions

To be able to set up a medical bag
To perform pre-participation screening of athletes

12. Practicum III

To examine the upper body and be familiar with special tests
To discuss case descriptions on upper limb injuries and formulate management protocols

13. Practicum IIII

To examine the lower body and be familiar with special tests
To discuss case descriptions on upper limb injuries and formulate management protocols

Department Contact Information:

Division of Sports Medicine/FMS Faculty of Medical Sciences UWI, Mona Telephone:
927-1620 ext. 3051 or 977-6714 Fax: 702-2391
Email: sportsmedicine@uwimona.edu.jm

Programme Director: Dr. Sharmella Roopchand-Martin

Clinical Fellowship in Cardiology

Programme Objectives:

A well rounded Cardiac Physician

Entry Requirements:

Fully Certified in Internal Medicine

Duration of programme: 2 Years

Enrollment Option: Full-Time

Courses

Clinical Cardiology
Cardiac Pathology
Cardiac Imaging and Intervention Procedures
Child and Adolescent Cardiac Exposure
Cardiothoracic Exposure
Ambulatory Renal Cardiac Care

Programme Coordinator: Professor Michael Lee

Clinical fellowship in Gastroenterology

Programme Objectives: Physician broadly based in Gastrointestinal Medicine

Entry Requirements: Fully certified in Internal Medicine

Duration of programme: 2 Years

Enrollment Option: Full Time

Courses:

Clinical Gastroenterology
Hepatobiliary Pathology
Gastrointestinal Procedures
Ambulatory Renal Gastroenterology Care
Transplantation

Programme Coordinator: Professor Michael Lee

Clinical Fellowship in Nephrology

Programme Objectives: Clinician with Broad Grounding in Renal Medicine

Entry Requirements: Fully certified in Internal Medicine

Duration of programme: Two Years

Programme Structure: Continuous

Enrollment Option: Full-Time

Courses

Renal Pathology
Clinical Nephrology
Haemodialysis
Transplantation
Ambulatory Rural Care
Paediatric Renal Exposure
Urology Exposure
Procedures

Programme Coordinator: Professor Everard Barton

DEPARTMENT OF COMMUNITY HEALTH & PSYCHIATRY

Head: Professor Wendel Abel

The Department of Community Health and Psychiatry offers the following graduate programs:

Diploma in Family Medicine
Master of Public Health (MPH)
Master of Public Health/Health Promotion (MPH/HP)
Master of Public Health (Gerontology)
MPhil/PhD in Public Health
Doctorate in Public Health (DrPH)
MSc Cultural Studies
DM Psychiatry
PhD Clinical Psychology

Diploma in Family Health

Programme Objectives

To provide education and training in Family Medicine appropriate and relevant to the health needs of the Caribbean community

To allow post-internship doctors and general practitioners in the Caribbean to:

1. Broaden knowledge and understanding of health and illness and their dynamics in the community in relation to the socio-economic and cultural environment of the community
2. Enhance clinical skills necessary for the management of common conditions seen in primary health care practice
3. Enhance professional competence, attitudes, values and behaviour that are inherent to the specialty of Family Medicine
4. Develop attitudes and skills to allow them to work effectively as members and leaders of a health care team in the context of the policy and reality of the health care systems in the Caribbean.

Entry Requirements

To be admitted to the prescribed course of study for the Diploma of Family Medicine candidates must be:

1. A registered medical practitioner
2. Employed in primary health care (government or private) for the duration of the course and be able to be released from duties on a regular basis to attend prescribed clinical sessions and at intervals for workshops and block teaching.

3. Computer literate and have access to an Internet-linked computer

Applicants will be required to submit a written application and may in some instances be required to attend an interview to be eligible for selection to the programme

Duration of programme

The programme runs over two academic years and involves both distance/on-line sessions and face-to-face sessions.

Programme Structure

The award of the Diploma in Family Medicine is based on satisfactory completion of:

- 1.12 six-week modules delivered by distance/on-line mode
2. Family Medicine Clinical Sessions
3. Specialist Clinical Sessions
4. On-Line Clinical Seminars
5. Block Face-to-face workshops

Courses (Core)

Course Code	Course Name	No. of Credits
FMMS6100	Continuing Medical Education	2
FMMS6801	Epidemiology and Evidence Based Medicine	2
FMMS6200	The Consultation and Communication	2
FMMS6700	Doctor-Patient Relationship/ Ethics	2
FMMS6400	Health Promotion, Screening and Risk Assessment and Risk Assessment	2
	Chronic Disease in Primary Care	2
FMMS6600	Sexuality and STDS	2
FMMS6500	Child and Adolescent Health	2
FMMS6201	Gender Issues in Health/ Womens Health	2
FMMS6401	Health Care of the Elderly	2
FMMS6402	Counselling	2
FMMS6803	Forensic Medical and Legal issues in Primary Care	2

FMMS6100 Continuing Medical Education

(Teaching and Learning in Primary Care)

Introduces the student to the principles of Adult Education .The features of the constructivist theory of education are examined and applied to problem-based learning. Each student assesses his/her learning style and develops a learning contract.

FMMS6801 Epidemiology and Evidence Based Medicine

Presents the tenets of Evidence Based Medicine and its application to everyday practice. The role that epidemiology plays in determining healthrelated events is examined. Students are exposed to the appropriate steps in clinical decision making.

FMMS6200 The Consultation and Communication

The elements of the medical consultation and the importance of proper communication techniques are presented. The seven communication transforming principles of Roter and Hall are examined and the relevance of communication to Family Medicine examined.

FMMS6700 Doctor-Patient Relationship / Ethics

The different types of Doctor-Patient Relationships and the importance of Ethics in Medical Practice are presented. Important virtues of the Family Physician and various examples of contemporary ethical issues are discussed.

FMMS6400 Health Promotion, Screening and Risk Assessment

Health Promotion Concepts, Rationale and Strategies and their application to Family Medicine Practice are examined. The student is exposed to models of health behaviour change and the value of equipping individuals with skills as part of the health promotion process.

Chronic Diseases in Primary Care

The common chronic diseases in the Caribbean-their assessment and management in Family Medicine Practice are explored. Special emphasis is placed on the conditions of obesity, hypertension and diabetes and the skills needed to assess and manage these in a holistic way are examined. The student is introduced to the use of protocols and guidelines in the management of Chronic Diseases.

FMMS6600 Sexuality and STDs

The student explores techniques for discussing human sexuality with his/her patients and diagnosing and treating sexual problems. The diagnosing and management of sexually transmitted diseases including HIV are also discussed.

FMMS6500 Child and Adolescent Health

Important elements of child and adolescent care relevant to the Family Physician are discussed. Areas such as screening, immunisation, the chronically ill child and child abuse are covered. Common illnesses in this age group are also explored.

FMMS6201 Gender Issues in Health /Womens Health

The student is exposed to the cultural, religious and historical beliefs and values that impact on gender socialisation with specific reference to the Caribbean. Identification of gender specific

health problems and their management are also explored.

FMMS6401 Health Care of the Elderly

The problems facing the elderly in the Caribbean are discussed and an ethical approach to the elderly in keeping with psychosocial theories is promoted. Skills in managing common problems of the elderly are discussed.

FMMS6402 Counselling

The student is exposed to the common mental health diseases in the community. Guidelines and protocols for the management of common mental health problems are discussed and the principles of counselling introduced.

FMMS6803 Forensic Medical and Legal Issues in Primary Care

The impact of Law on health care is explored. Important medico-legal issues are discussed and skills in dealing with these issues introduced.

Department Contact Information:

Department of Community Health and Psychiatry
1 Gibraltar Camp Way
University of the West Indies
Mona, Kingston 7, Jamaica

Telephone 876 927 2476, Fax: 876 977 6346

Programme Coordinator: Dr. Aileen Standard-Goldson, Dr. Kristen Smith

Master of Public Health (MPH)

Programme Objectives

To equip persons with the essential skills to assess and manage the health of communities and to advance and promote public health.

Primary Objectives

To provide persons with fundamental and critical skills for assessing community health problems and responding to public health challenges

To enable persons to use and apply principles, methods and analytic techniques of public health and allied disciplines for the improvement of population health and well-being

To enable persons to plan and manage public health programmes, develop and implement solutions to the public health problems, particularly within the context and settings of the Caribbean region

Entry Requirements

To be admitted to the prescribed course of study for the degree of Master of Public Health (MPH) candidates must:

be registered medical practitioners, dental surgeons, or veterinary surgeons, with at least three years professional experience preferably in Public Health after successfully completing the final examination in their discipline; or

be graduates of an approved university with at least three years of relevant practical experience; or

hold an approved technical or professional qualification awarded by an approved body and approved by this university and have had at least five years relevant practical experience; or have, in the opinion of the University, other qualifications of special relevance to the course and in the opinion of the University, have had at least five years of relevant practical experience.

Applicants will be required to submit a written application and may in some instances be required to attend an interview to be eligible for selection to the programme.

Duration of programme:

This degree is offered over twelve months and includes both classroom and field activities.

Programme Structure:

The award of the Master of Public Health Degree is based on satisfactory completion of:

Coursework

Written and oral examinations

Research project

Field Placement

Courses (Core)

Course Code	Course Name	No. of Credits
PUBH 6001	Research Methods I	2
PUBH 6002	Research Methods II: Project Report	6
PUBH 6101	Biostatistics I	3
PUBH 6201	Epidemiology I: Core Concepts	2
PUBH 6202	Epidemiology II: Methodological issues	2
PUBH 6301	Family Health I	3
PUBH 6302	Family Health II	2
PUBH 6401	Management I: Core Concepts	3
PUBH 6402	Management II: Policy, Planning and Programs	3
PUBH 6403	Management III: Financial Management	2
PUBH 6404	Management IV: Health Economics	2
PUBH 6501	Primary Health Care	2

PUBH 6601	Environment Health	2
PUBH 6602	Disaster Management	2
PUBH 6901	Health Education I: Core 2concepts and principles	2
PUBH 6003	Qualitative Research	2

Courses (Electives)

Course Code	Course Name	No. Of Credits
PUBH 6203	Epidemiology III: Infectious Disease Epidemiology	2
PUBH 6204	Epidemiology IV: Non- Communicable Disease Epidemiology	2
PUBH 6701	Community Mental Health	2
PUBH 6603	Occupational Health	2
PUBH 6905	Health Education & Health Promotion Program Administration	2
PUBH6906	Communication	2

DESCRIPTION OF COURSES/MODULE:

PUBH 6001 (HE60A) Research Methodology (2 credits)

Covers principles involved in the writing of a research proposal, design of investigations, methods of data collection and report writing. This is followed by an application of principles in planning and conducting a research project that is examined externally as part of the examination process. Research projects of students in the Health Education and Health Promotion track must have a Health Promotion slant and include qualitative methods.

PUBH 6002 (HE60B) Project Report (6 credits)

All students are expected to apply the principles of biostatistics, epidemiology and research methods in planning and conducting research on a topic of public health relevance. Both qualitative and quantitative measures are expected in this research. Research projects of students in the Health Education and Health Promotion track must in addition to the foregoing, have a Health Promotion slant.

PUBH 6201 (HE61A) Biostatistics (3 credits)

This course introduces students to the field of statistics and its application in public health. It will cover data analysis using descriptive, inferential and hypothesis-testing techniques. The use of the computer in data analysis will be an important feature of this course.

PUBH 6201 (HE62A) Epidemiology I (2 credits)

Introduces methods of epidemiology with special reference to disease entities and conditions found in the Caribbean. Principles, uses and methods of epidemiology; host-agent-environment relationships, measures of disease frequency, investigation of outbreaks, disease surveillance,

aspects of community health analysis, rates and ratios, introductory demography are addressed in this course.

PUBH 6202 (HE62B) Epidemiology II (2 credits)

Details methodological issues in epidemiology including measurements, rates, risk, study designs and statistical methods and their value in the prediction and management of illnesses and diseases.

PUBH 6203 (HE62C) Infectious Epidemiology(2 credits)

Describes and outlines principles of prevention and control of communicable diseases with special emphasis on diseases of particular significance to the Caribbean. Disease control programmes and associated problems are analyzed and their impact assessed and debated.

PUBH 6204 (HE62D) Chronic Disease Epidemiology (2 credits)

Provides overview of major non-communicable and chronic diseases prevalent in the Caribbean. Related risk factors and methodologies, compliance problems, nutrition and other issues and their implications for Health Education and Health Promotion are discussed. Delineates approaches for chronic non-communicable disease reduction and control.

PUBH 6301(HE63A) Family Health I (3 credits)

Focuses on the concepts, content and approaches to the provision of health care services for families throughout the life cycle. Discussions though centered around Caribbean issues are pertinent to global situations. There is a focus on the application of those principles to real families in the community through case studies and working with families at risk.

PUBH 6302 (HE63B) Family Health II (2 credits)

Reinforces the concepts, content and approaches to the provision of health care services for families throughout the life cycle as covered in Family I. Contemporary issues affecting the family including violence and rape are dealt with, not only from a theory based perspective but course participants access and utilize state and community agencies to improve the health and welfare of the families with which they work. Capacity and asset building skills for empowerment are taught.

PUBH 6401 (HE64A) Health Management I(3 credits)

Involves didactic exploration and critique of the health management process including general and social systems theory, health service structure and function (national and international) and the major steps in the planning process.

PUBH 6402 (HE64B) Management II (3 credits)

Builds on concepts covered in Health Management I by delving into issues relating to policy, planning and health sector reform. Participants critically analyze the health care systems and significant attention is given to how to operationalize health care systems.

PUBH 6403 (HE64C) Management III (2 credits)

Emphasis is placed on the development of skills and the practical application of Financial Management concerns in government, government accounting system, strategic planning process within the government of Jamaica and the Financial Cycle of Control (Budgeting).

PUBH 6404 (HE64D) Health Economics (2 credits)

Introduces the key concepts, methods, applications and issues in health economics. Emphasis is on the use and application of the tools and techniques of health economics to planning, policy-making implementation and evaluation of programmes in the health sector.

PUBH 6501 (HE65A) Primary Health Care (2 credits)

Reviews and discusses Alma Ata, from a health sector perspective. Examines the contribution of non-health sectors, health service structure and functions, community participation, intersectoral coordination, international health regulations, natural and international health agencies to primary health care. Analyses of the primary health care approach to the promotion and maintenance of health and development are included.

PUBH 6601 (HE66A) Environmental Health (2 credits)

Provides a general overview of environmental health, its scope and practice. Emphasis is placed on the interrelationship between man and his environment and the resulting impact on health. The vast dimensions of the environment including air, land and water and related issues including physical, biological and chemical agents known to be harmful to health are included.

PUBH 6701 (HE67A) Community Mental Health(2 credits)

This course covers the concepts and principles related to mental health, the organization and delivery of relevant services and the principles underlying choice of service models in the Caribbean. The emphasis/philosophy in this course is on seeing Community Mental Health as an integrated component of public health services.

PUBH 6602 (HE68A) Disaster Management (2 credits)

Highlights the importance of disaster management and its relevance to public health in the Caribbean. The course describes the essential elements for consideration in disaster management and mitigation. The challenges and approaches inherent in pre-disaster, intra-disaster and post-disaster phases and the role of the public health team in all phases are discussed. The course also includes site visits to disaster areas and agencies involved in disaster management.

PUBH 6603 (HE68B) Occupational Health (2 credits)

The definitions and principles of occupational health and the range and classification of OH hazards and how to manage and prevent these are detailed. Visits to specific sites adds a practical dimension to the content covered.

PUBH 6901 (HE 69A) Health Education I (2 credits)

Explores the philosophies, goals and principles on which health education and health promotion are founded and the relevance of the health promotion approach to Caribbean Public Health. The promotion of individual responsibility and community participation are also covered.

PUBH 6902 (HE69B) Health Education II (2 credits)

Provides a guide to planning implementing and evaluating health education and health promotion programmes in a variety of settings. The value and use of theories and models in planning and implementing interventions are integral features of this course.

PUBH 6903 (HE69C) Advanced Health Education (3credits)

This is a basic course for health education and promotion specialists. This course explores the philosophies, goals and principles on which health education and health promotion are founded. It further provides a context for practicing health education, focusing on the range of responsibilities, ethical guidelines and introduces theories and models relating to individual and community behaviour change.

PUBH 6904 (HE69D) Issues in Health Education and Health Promotion (2 credits)

Examines current trends in the field and implications for further development and action. Topical issues are discussed and these include but are not limited to issues relating to chronic disease, mental health, dental health and ageing.

PUBH 6905 (HE69E) Health Education and Health Promotion Programme Administration (2 credits)

Analyzes resources, needs, use and organization of those resources to match health education and health promotion needs at all levels. This includes approaches to forge partnerships, build networks and general collaboration at all levels.

PUBH 6003 (HE69F) Qualitative Research Processes (2 credits)

Describes and discusses various methods of qualitative research. Emphasis is placed on the development of skills and the practical application of such methods of research to health education, health promotion and public health.

PUBH 6906 (HE69G) Communication (2 credits)

Focuses on the principles and practices involved in effective communication for mobilizing individual and community action for health. The use of integrated marketing communication (including social marketing) as a strategy for promoting health is covered.

Department Contact Information:

Department of Community Health and Psychiatry
1 Gibraltar Camp Way
University of the West Indies Mona,
Kingston 7,
Jamaica
Phone: 1-876-512-3637; 1-876-927-1752 Fax: 1-876-977-6346

Programme Coordinator: Dr. Kenneth James
Dr. Michelle Harris

Master of Public Health in Health Education/Health Promotion (MPH-HE/HP)

Programme Objective

To equip persons with the essential skills to assess and manage the health of communities and to advance and promote public health

Primary Objectives

The Master of Public Health (MPH) in Health Education and Health Promotion curriculum aims to facilitate personal and professional development in the field of health education and health promotion for persons whose career-base is in health, education, and other relevant disciplines; enabling them to manage health education and promotion programmes in any setting.

Demonstrate knowledge and understanding of the principles and practices of health education/health promotion.

Plan, implement, manage and evaluate education and health promotion programmes in any setting.

Develop health communication strategies and resources.

Entry Requirements

To be admitted to the prescribed course of study for the degree of Master of Public Health (MPH) in Health Education and Health Promotion candidates must:

be registered medical practitioners, dental surgeons, or veterinary surgeons, with at least three years professional experience preferably in Public Health after successfully completing the final examination in their discipline; or

be graduates of an approved university with at least three years of relevant practical experience;
or

hold an approved technical or professional qualification awarded by an approved body and approved by this university and have had at least five years relevant practical experience; or

have, in the opinion of the University, other qualifications of special relevance to the course and in the opinion of the University, have had at least five years of relevant practical experience.

Applicants will be required to submit an application and may be required to attend an interview to be eligible for selection to the programme.

Duration of programme

This degree is offered over fifteen months and this includes twelve (12) months of classroom activities and three (3) months internship.

Programme Structure

The award of the Master of Public Health Degree is based on satisfactory completion of:
Coursework

Written and oral examinations
Research project
Internship

Courses (Core)

Course Code	Course Name	No. of Credits
PUBH 6001	Research Methods I	2
PUBH 6002	Research Methods II: Project Report	6
PUBH 6101	Biostatistics I	3
PUBH 6201	Epidemiology I: Core Concepts	2
PUBH 6202	Epidemiology II: Methodological Issues	2
PUBH 6301	Family Health I	3
PUBH 6302	Family Health II	2
PUBH 6401	Management I: Core Concepts	3
PUBH 6402	Management II: Policy, Planning and Programs	3
PUBH 6403	Management III: Financial Management	2
PUBH 6404	Management IV: Health Economics	2
PUBH 6501	Primary Health Care	2
PUBH 6601	Environment Health	2
PUBH 6602	Disaster Management	2
PUBH 6901	Health Education I: Core concepts and principles	2

PUBH 6003	Qualitative Research	2
PUBH 6905	Health Education & Health Promotion Program Administration	2
PUBH 6906	Communication	2

Courses (Electives)

Course Code	Course Name	No. of Credits
PUBH 6203	Epidemiology III: Infectious Disease Epidemiology	2
PUBH 6204	Epidemiology IV: Non- Communicable Disease Epidemiology	2
PUBH 6701	Community Mental Health	2
PUBH 6603	Occupational Health	2

DESCRIPTION OF COURSES/MODULES

PUBH 6001 (HE60A) Research Methodology (2 credits)

Covers principles involved in the writing of a research proposal, design of investigations, methods of data collection and report writing. This is followed by an application of principles in planning and conducting a research project that is examined externally as part of the examination process. Research projects of students in the Health Education and Health Promotion track must have a Health Promotion slant and include qualitative methods.

PUBH 6002 (HE60B) Project Report (6 credits)

All students are expected to apply the principles of biostatistics, epidemiology and research methods in planning and conducting research on a topic of public health relevance. Both qualitative and quantitative measures are expected in this research. Research projects of students in the Health Education and Health Promotion track must in addition to the foregoing, have a Health Promotion slant.

PUBH 6201 (HE61A) Biostatistics (2 credits)

This course introduces students to the field of statistics and its application in public health. It will cover data analysis using descriptive, inferential and hypothesis-testing techniques. The use of the computer in data analysis will be an important feature of this course.

PUBH 6201 (HE62A) Epidemiology I (2 credits)

Introduces methods of epidemiology with special reference to disease entities and conditions found in the Caribbean. Principles, uses and methods of epidemiology; host-agent-environment relationships, measures of disease frequency, investigation of outbreaks, disease surveillance, aspects of community health analysis, rates and ratios, introductory demography are addressed in

this course.

PUBH 6202 (HE62B) Epidemiology II (2 credits)

Details methodological issues in epidemiology including measurements, rates, risk, study designs and statistical methods and their value in the prediction and management of illnesses and diseases.

PUBH 6203 (HE62C) Infectious Epidemiology (2 credits)

Describes and outlines principles of prevention and control of communicable diseases with special emphasis on diseases of particular significance to the Caribbean. Disease control programmes and associated problems are analyzed and their impact assessed and debated.

PUBH 6204 (HE62D) Chronic Disease Epidemiology (2 credits)

Provides overview of major non-communicable and chronic diseases prevalent in the Caribbean. Related risk factors and methodologies, compliance problems, nutrition and other issues and their implications for Health Education and Health Promotion are discussed. Delineates approaches for chronic non-communicable disease reduction and control.

PUBH 6301(HE63A) Family Health I (2 credits)

Focuses on the concepts, content and approaches to the provision of health care services for families throughout the life cycle. Discussions though centered around Caribbean issues are pertinent to global situations. There is a focus on the application of those principles to real families in the community through case studies and working with families at risk.

PUBH 6302 (HE63B) Family Health II (2 credits)

Reinforces the concepts, content and approaches to the provision of health care services for families throughout the life cycle as covered in Family I. Contemporary issues affecting the family including violence and rape are dealt with, not only from a theory based perspective but course participants access and utilize state and community agencies to improve the health and welfare of the families with which they work. Capacity and asset building skills for empowerment are taught.

PUBH 6401 (HE64A) Health Management I (2 credits)

Involves didactic exploration and critique of the health management process including general and social systems theory, health service structure and function (national and international) and the major steps in the planning process.

PUBH 6402 (HE64B) Management II (2 credits)

Builds on concepts covered in Health Management I by delving into issues relating to policy,

planning and health sector reform. Participants critically analyze the health care systems and significant attention is given to how to operationalize health care systems.

PUBH 6403 (HE64C) Management III (2 credits)

Emphasis is placed on the development of skills and the practical application of Financial Management concerns in government, government accounting system, strategic planning process within the government of Jamaica and the Financial Cycle of Control (Budgeting).

PUBH 6404 (HE64D) Health Economics (2 credits)

Introduces the key concepts, methods, applications and issues in health economics. Emphasis is on the use and application of the tools and techniques of health economics to planning, policy-making implementation and evaluation of programmes in the health sector.

PUBH 6501 (HE65A) Primary Health Care (2 credits)

Reviews and discusses Alma Ata, from a health sector perspective. Examines the contribution of non-health sectors, health service structure and functions, community participation, intersectoral coordination, international health regulations, natural and international health agencies to primary health care. Analyses of the primary health care approach to the promotion and maintenance of health and development are included.

PUBH 6601 (HE66A) Environmental Health (2 credits)

Provides a general overview of environmental health, its scope and practice. Emphasis is placed on the interrelationship between man and his environment and the resulting impact on health. The vast dimensions of the environment including air, land and water and related issues including physical, biological and chemical agents known to be harmful to health are included.

PUBH 6701 (HE67A) Community Mental Health(2 credits)

This course covers the concepts and principles related to mental health, the organization and delivery of relevant services and the principles underlying choice of service models in the Caribbean. The emphasis/philosophy in this course is on seeing Community Mental Health as an integrated component of public health services.

PUBH 6602 (HE68A) Disaster Management (2 credits)

Highlights the importance of disaster management and its relevance to public health in the Caribbean. The course describes the essential elements for consideration in disaster management and mitigation. The challenges and approaches inherent in pre-disaster, intra-disaster and post-disaster phases and the role of the public health team in all phases are discussed. The course also includes site visits to disaster areas and agencies involved in disaster management.

PUBH 6603 (HE68B) Occupational Health (2 credits)

The definitions and principles of occupational health and the range and classification of OH hazards and how to manage and prevent these are detailed. Visits to specific sites adds a practical dimension to the content covered.

PUBH 6901 (HE 69A) Health Education I (2 credits)

Explores the philosophies, goals and principles on which health education and health promotion are founded and the relevance of the health promotion approach to Caribbean Public Health. The promotion of individual responsibility and community participation are also covered.

PUBH 6902 (HE69B) Health Education II (2 credits)

Provides a guide to planning implementing and evaluating health education and health promotion programmes in a variety of settings. The value and use of theories and models in planning and implementing interventions are integral features of this course.

PUBH 6903 (HE69C) Advanced Health Education (3credits)

This is a basic course for health education and promotion specialists. This course explores the philosophies, goals and principles on which health education and health promotion are founded. It further provides a context for practicing health education, focusing on the range of responsibilities, ethical guidelines and introduces theories and models relating to individual and community behaviour change.

PUBH 6904 (HE69D) Issues in Health Education and Health Promotion (2 credits)

Examines current trends in the field and implications for further development and action. Topical issues are discussed and these include but are not limited to issues relating to chronic disease, mental health, dental health and ageing.

PUBH 6905 (HE69E) Health Education and Health Promotion Programme Administration (2 credits)

Analyzes resources, needs, use and organization of those resources to match health education and health promotion needs at all levels. This includes approaches to forge partnerships, build networks and general collaboration at all levels.

PUBH 6003 (HE69F) Qualitative Research Processes (2 credits)

Describes and discusses various methods of qualitative research. Emphasis is placed on the development of skills and the practical application of such methods of research to health education, health promotion and public health.

PUBH 6906 (HE69G) Communication (2 credits)

Focuses on the principles and practices involved in effective communication for mobilizing individual and community action for health. The use of integrated marketing communication (including social marketing) as a strategy for promoting health is covered.

PUBH 6907 (HE61B) Field Practicum (10 credits)

In the first semester of the second academic year (September to November), candidates for the degree of Health Education and Health Promotion track do an internship in an assigned organization determined by the opportunity available in such organization to practice health promotion. Each participant spends two weeks in developing skills in using media in health promotion prior to assignment to a specific organization. Interns are expected to engage in activities to demonstrate competence in a minimum of three of the graduate competencies targeted in the training. This course culminates in a health promotion seminar organized and presented by students in which field experiences are shared with a panel of examiners.

Programme Coordinator: Mrs. Desmalee Holder-Nevins

Master of Public Health, Gerontology

Programme Objectives:

At the end of the programme of study MPH-GRN graduates will

1. Demonstrate mastery of public health principles and practice in the core competences of research, epidemiology, biostatistics, gerontology and health education/promotion for older persons
2. Develop a critical appreciation of the key theoretical perspectives within gerontology and their application in the analysis of specific issues related to ageing and well-being of older persons
3. Apply public health principles to solve complex ageing-related issues to improve the lives of older persons, their families and community
4. Evaluate current policies, programmes and initiatives concerning population ageing
5. Design and conduct research relevant to ageing issues
6. Develop competence as practitioners capable of working with older persons, their families and communities to maintain functional independence and personal integrity

Entry Requirements :

Persons with an undergraduate qualification in health or social work and have two (2) years of relevant experience

Duration of programme: 12 months full time

Programme Structure: The programme consists of 46 total credits

Enrollment Option: Full-Time, Part-Time , Online

Courses (Core)

Course Code	Course Name	No. of Credits
PUBH 6001	Research Methods I	2
PUBH 6002	Research Methodology II: Project Report	6
PUBH 6101	Biostatistics I	3
PUBH 6201	Epidemiology I: Core concepts	2
PUBH 6202	Epidemiology II: Methodology Issues	2
PUBH 6401	Management I: Core Principles	3
PUBH 6402	Management II: Policy, Planning and Programs	3
PUBH 6501	Primary Health Care	2
PUBH 6801	Fundamentals of Ageing	3
PUBH 6802	Clinical Aspects of Ageing	3
PUBH 6803	Public Health and Ageing	3
PUBH 6804	Built Environment and Ageing	3
PUBH 6805	Mental Health Aspects of Ageing	3
PUBH 6901	Health Education I: Core Concepts & Principles	2
PUBH 6907	Field Practicum	0

Courses (Electives)

Course Code	Course Name	No. of Credits
PUBH 6806	Management Issues in Day-Care, Assisted-Living & Long-Term Care Facilities	3
PUBH 6808	Social Policy and Services for Older Persons	3
PUBH 6809	Communicating with Older Persons	3

TOTAL NUMBER OF CREDITS FOR DEGREE / DIPLOMA 46

PUBH6001 Research Methodology

Course Description: Covers principles involved in the writing of a research proposal, design of investigations, methods of data collection and report writing. This is followed by an application of principles in planning and conducting a research project that is examined externally as part of the examination process. Research projects of students in the Health Education and Promotion track must have a Health Promotion slant and include qualitative methods.

PUBH 6002: Research Methodology II: Project Report

Course Description: Design and conduct a research project; analyse and report in writing and orally on the findings.

PUBH 6101 Biostatistics I

Course Description: This course introduces students to the field of statistics and its application in public health. It will cover data analysis using descriptive, inferential and hypothesis-testing techniques. The use of the computer in data analysis will be an important feature of this course.

PUBH6201 Epidemiology I

Course Description: Introduces methods of epidemiology with special reference to disease entities and conditions found in the Caribbean. Principles, uses and methods of epidemiology; host-agent environment, measures of disease frequency, investigation of outbreaks, disease surveillance, aspects of community health analysis, rates and ratios, introductory demography.

PUBH6202 Epidemiology II

Course Description: Details methodological issues in epidemiology including measurements, rates, risk, study designs and statistical methods and their value in the prediction and management of illnesses and diseases.

PUBH6401: Health Management I

Course Description: Involves didactic exploration and critique of the health management process including general and social systems theory, health service structure and function (national and international) and the major steps in the planning process.

PUBH6402: Health Management II

Course Description: Builds on concepts covered in Health Management I by delving into issues relating to policy, planning and health sector reform. Participants critically analyze the health care systems and significant attention is given to how to operationalize health care systems.

PUBH6501: Primary Health Care

Reviews and discusses Alma Ata, from a health sector perspective. Examines the contribution of non-health sectors, health service structure and functions, community participation, intersectional coordination, international health regulations, natural and international health agencies to primary health care. Analyses of the primary health care approach to the promotion and maintenance of health and development are included.

PUBH 6801: Fundamentals of Ageing

Course Description: This course will examine the interconnectedness of the physical environment and healthy ageing. The course will also relate how the physical environment can influence older person's physical, social and emotional well-being. The course examines different perspectives to address the physical environmental needs of older persons such as housing, health facilities, public transport and community. The course provides exposure to the basic concepts of ageing and introduces students to ageing throughout the life course.

PUBH 6802: Clinical Aspects of Ageing

Course Description: The course examines in detail biophysical and clinical aspects of ageing. It delves substantively into normal and clinic-pathological changes in the major body systems. The approach to comprehensive geriatric assessment of the elderly is outlined. This includes the

assessment of physical and mental function, as well as an appraisal of social history, competencies and support, all of which impinge on self-care capacity, access to health care and health outcomes.

PUBH 6803 Public Health and Ageing

Course Description: The course will cover the processes of selecting evidence-based public health interventions (policy and programme) for ageing-related issues, bearing in mind the health, cultural, economic and political context of the country or region.

PUBH 6804: Built Environment and Ageing

Course Description: This course will examine the interconnectedness of the physical environment and healthy ageing. The course will also relate how the physical environment can influence older person's physical, social and emotional well-being. The course examines different perspectives to address the physical and environmental needs of older persons such as housing, health facilities, public transport and community.

PUBH 6805: Mental Health Aspects of Ageing

Course Description: This course examines age-related changes (normal and pathological) that people experience in their learning, memory, intellectual skills, and personalities. Students will be able to distinguish between changes that occur with normal adult development (primary ageing) and those that might occur in secondary to systemic disease and mental disorders (secondary ageing).

PUBH 6806: Management Issues in Day-Care, Assisted-Living and Nursing Homes

Course Description: This course will examine principles underlying the management issues in day-care, assisted-living and long-term care facilities for older persons. It will highlight the issues and challenges involved in planning, organizing, and delivering services to the older persons in the aforementioned settings.

PUBH 6808: Social Policy and Services for Older Persons

Course Description: The significant event of Population Ageing, poses major challenges to public policymakers at all levels of government. The problems and issues facing older persons and society require practitioners, researchers, public officials, and the general public to be familiar with ageing and to be able to assess the varied proposals, reforms, and debates as they relate to policy decisions affecting programmes and services for this population.

PUBH 6809: Communicating with Older Persons

Course Description: Older persons often have hearing, visual and cognitive impairments that require specialized communication skills. This course will draw on health communication principles and strategies that will inform effective interactions with older persons in different settings.

PUBH6901 Health Education I

Course Description: Explores the philosophies, goals and principles on which health education and health promotion are founded and the relevance of the health promotion approach to

Caribbean Public Health. The promotion of individual responsibility and community participation are also covered.

PUBH6907 Field Practicum

Description: A gerontology practicum is required of the student and involves a six (6) weeks attachment to a health institution offering service to older persons. Students will gain experience in gerontology and are expected to identify an ageing-related issue for which they will develop and implement an appropriate intervention.

Department Contact Information:

Faculty of Medical Sciences
The University of the West Indies, Mona
3 Gibraltar Camp Way
Kingston 7, Jamaica
Office: 1-876-970-6267

Programme Coordinator: Dr. Norman Waldron

Post Graduate Diploma in Gerontology

Programme Objectives:

At the end of the programme of study PGD-GRN graduates will:

1. Develop a critical appreciation of the key theoretical perspectives within gerontology and their application in the analysis of specific issues related to ageing and well-being of older persons
2. Understand the determinants of demographic transition and the consequences of population ageing
3. Critically assess health, social policies and programmes which impact the lives of older persons, their families and communities
4. Interpret ageing research outputs and apply the evidence to ageing-related issues
5. Understand the principles and practice of working with older persons, their families and communities

Entry Requirements:

Persons with bachelor's qualification in public health, nursing, sociology, social work, physiotherapy and other allied health issues

Duration of programme: 9 months full time

Programme Structure: The programme consists of 24 total credits

Enrollment Option: Full-Time**Courses (Core)**

Course Code	Course Name	No. of Credits
PUBH 6801	Fundamentals of Ageing	3
PUBH 6802	Clinical Aspects of Ageing	3
PUBH 6803	Public Health and Ageing	3
PUBH 6804	Built Environment and Ageing	3
PUBH 6805	Mental Health Aspects of Ageing	3
PUBH6810	Evidence Based Gerontology: Application to Practice	3

Courses (Electives) 2 electives (6 credits)

Course Code	Course Name	No. of Credits
PUBH 6806	Management Issues in Day-Care, Assisted-Living & Long-Term Care Facilities	3
PUBH6807	Ageing, Health and Well-Being	3
PUBH 6808	Social Policy and Services for Older Persons	3
PUBH 6809	Communicating with Older Persons	3

TOTAL NUMBER OF CREDITS FOR DEGREE / DIPLOMA 24**PUBH 6801: Fundamentals of Ageing**

Course Description: This course will examine the interconnectedness of the physical environment and healthy ageing. The course will also relate how the physical environment can influence older person's physical, social and emotional well-being. The course examines different perspectives to address the physical and environmental needs of older persons such as housing, health facilities, public transport and community. The course provides exposure to the basic concepts of ageing and introduces students to ageing throughout the life course.

PUBH 6802: Clinical Aspects of Ageing

Course Description: The course examines in detail biophysical and clinical aspects of ageing. It delves substantively into normal and clinic-pathological changes in the major body systems. The approach to comprehensive geriatric assessment of the elderly is outlined. This includes the assessment of physical and mental function, as well as an appraisal of social history, competencies and support, all of which impinge on self-care capacity, access to health care and health outcomes.

PUBH 6803 Public Health and Ageing

Course Description: The course will cover the processes of selecting evidence-based public health interventions (policy and programme) for ageing-related issues, bearing in mind the health, cultural, economic and political context of the country or region.

PUBH 6804 Built Environment and Ageing

Course Description: this course will examine the interconnectedness of the physical environment and healthy ageing. The course will also relate how the physical environment can influence older person's physical, social and emotional well-being.

The course examines different perspectives to address the physical and environmental needs of older persons such as housing, health facilities, public transportation and community.

PUBH 6805: Mental Health Aspects of Ageing

Course Description: This course examines age-related changes (normal and pathological) that people experience in their learning, memory, intellectual skills, and personalities. Students will be able to distinguish between changes that occur with normal adult development (primary ageing) and those that might occur in secondary to systemic disease and mental disorders (secondary ageing).

PUBH 6806: Management Issues in Day-Care, Assisted-Living and Nursing Homes

Course Description: This course will examine principles underlying the management issues in day-care, assisted-living and long-term care facilities for older persons. It will highlight the issues and challenges involved in planning, organizing, and delivering services to the older persons in the aforementioned settings.

PUBH 6807: Ageing, Health & Well-Being

Course Description: The course will examine the issues experienced by older persons and their families from the perspectives of demography, history, functional capacity, health services, economics and ethical issues.

PUBH 6808: Social Policy and Services for Older Persons

Course Description: The significant event of Population Ageing, poses major challenges to public policymakers at all levels of government. The problems and issues facing older persons and society require practitioners, researchers, public officials, and the general public to be familiar with ageing and to be able to assess the varied proposals, reforms, and debates as they relate to policy decisions affecting programmes and services for this population.

PUBH 6809: Communicating with Older Persons

Course Description: Older persons often have hearing, visual and cognitive impairments that require specialized communication skills. This course will draw on health communication principles and strategies that will inform effective interactions with older persons in different settings.

PUBH 6810: Evidence-Based Gerontology: Application to Practice

Course Description: The course will review the methods of research and apply the evidence-based approach to informed decision making in empirical ageing-related issues. Students will develop skills to read, understand and evaluate the quality of research papers employing quantitative and qualitative methods.

Department Contact Information:

Faculty of Medical Sciences
The University of the West Indies, Mona
3 Gibraltar Camp Way
Kingston 7, Jamaica
Office: 1-876-970-6267

Programme Coordinator: Dr. Norman Waldron

MPhil Public Health

Entry Requirements:

Normally only a University Graduate with a first class honours or an upper or lower second class undergraduate degree in Public Health or a related field will be accepted for the MPhil Degree.

Duration of programme

The programme extends over not less than 21 months including any departmental courses required. It consists largely of work on a research topic examined by thesis and oral examination. One or more supervisors for the proposed research must be available and adequate facilities for the particular work must exist.

Programme Structure

The MPhil thesis is based on research in the field and /or library and archival studies. It should comprise not less than 15,000 words and should be supported by maps, diagrams and photographic illustrations, etc. Candidates for the MPhil degree may be required to take an oral examination on the general field of study and on the thesis.

Programme Coordinator: Dr. Kenneth James

PhD Public Health

Entry Requirements

Graduates intending to study for the PhD may register for the degree programme if they hold an approved Masters Degree in an appropriate field of study in Public Health. All other graduates must apply to take the MPhil degree and must apply to transfer to the PhD not less than one year

after being admitted as a MPhil candidate

Duration of programme

Candidates will normally pursue research over a minimum of two academic years as full-time student, or three years as part-time students.

Programme Structure

The PhD is fundamentally a research degree, and is examined by thesis.

Additional Information/Notes

The PhD thesis should make a distinct contribution to the content and advancement of public health, and show evidence of originality either through the discovery of new facts or by the exercise of independent critical power. It should meet the professional standards of the discipline, be satisfactory as it regards literary presentation, and be suitable for publication. The examination for the degree is by assessment of the thesis and by oral examination.

Programme Coordinator: Dr. Kenneth James

Doctorate in Public Health (DrPH)

The Doctor of Public Health (DrPH) programme is in the Department of Community Health within the Faculty of Medical Sciences. It operates in the building which the Masters in Public Health (MPH) operates. It commences in 2009 with its first cohort and is in keeping with the mission of the UWI to produce top quality Regional leaders in the field of Public Health. The graduate of this course will also be expected to demonstrate good analytic, visionary and communication skills.

The DrPH is different from the MPhil and PhD in Public Health. The DrPH does not replace any of the existing programmes nor is it restructuring of any previous programmes. Rather it builds on the foundation of several other courses being conducted by the University.

Programme Objectives:

Upon completion of the program the graduate should be able to:

1. Demonstrate leadership in the organization of the Public Health services
2. Apply the skills of policy analysis and programme development to improve individual and community health
3. Analyse issues and problems in public health using critical evaluation of information from a variety of sources
4. Demonstrate in-depth understanding of the core areas of public health theory and practice
5. Apply the analytic tools of epidemiology and biostatistics to address specific public health issues

6. Apply management and financial management skills in the practice of public health
7. Demonstrate effective communication and advocacy skills
8. Demonstrate the ability to apply epidemiological and biostatistical study methods to plan and conduct relevant Public health research

Entry Requirements:

Persons requiring admission to the program should have completed an MPH or equivalent master's degree with at least an upper second class honours or equivalent.

Duration of programme: Normally 4 years and up to 7 years

Programme Structure:

This is a part time competency based programme that will be delivered by a combination of face to face, distant learning modules, and electives. The students must prepare a portfolio, conduct field placements and complete a research thesis.

1) Face to face and distance learning modules

Students must complete 12 core modules (for 36 academic credits) and elective courses equivalent to 6 credits for a total of 42 academic credits.

There will be three 2- three week face to face blocks of teaching in year one and 2- three week face to face blocks in year two. Webinars will be scheduled between the face to face blocks.

2) Supervised field placements

Students will be expected to undertake supervised field placements which should assist in strengthening specific public health competencies. The field placement will normally extend over a 2 year period and may be done at different locations. A short learning contract indicating names of supervisor(s), specific objectives and expected outputs must be prepared and approved by the faculty before the start of each placement.

An experienced public health practitioner who can demonstrate mastery of specific competencies may apply for exemption of up to 1 year of supervised field placement.

This applicant should include evidence of this mastery in their portfolio which will be reviewed by faculty and a recommendation presented to the speciality board.

3) Research thesis

Students are expected to design and conduct research leading to doctoral thesis on a topic of interest to them and of Public Health significance. The research must be conducted in keeping with the guidelines of the Ethical Review Board of the Faculty of Medical Sciences of the University of the West Indies.

4) Evaluation will be by

- i) End of module assessments,
- ii) Comprehensive end of year two examination

- iii) Continuous assessment of field placements
- iv) Presentation of doctoral thesis.

Enrolment Option: Part-Time

Courses (Core):

Course Code	Course Name	No. of Credits
PUBH 9001	Health Across the Life Course	3
PUBH 9002	Social and Cultural Determinants of Health	3
PUBH 9003	Applied Epidemiology	3
PUBH 9004	Statistical Methods in Public Health Practice	3
PUBH 9005	Public Health Policy	3
PUBH 9006	Doctoral Seminars I: Foundation of Public Health	3
PUBH 9007	Doctoral Seminars II: Leadership Development	3
PUBH 9008	Programme Development Management and Evaluation	3
PUBH 9009	Research Methods for Public Health Practice	3
PUBH 9010	Health Systems Management and Organizational Behaviour	3
PUBH 9011	Public Health Practicum	0
PUBH 9012	Research Thesis	0
PUBH 9013	End of Year 2 Examinations	0
PUBH 9014	Qualitative Research for Public Health practitioners	3
PUBH 9015	Behaviour Change and Communication for Public Health Practitioners	3

Electives: up to a total of 6 credits

Course Code	Course Name	No. of Credits
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PUBH 9016	Directed Readings in Public Health	3
PUBH 9017	Special Topics in Public Health	3
Others*		

*** Students may apply for and be granted permission to do other approved post graduate courses as electives.**

TOTAL NUMBER OF CREDITS FOR DEGREE / DIPLOMA: 42 Credits

PUBH 9001 - HEALTH ACROSS THE LIFESPAN

This course introduces and examines the basic principles which guide growth and development of individuals across the lifespan, from conception through childhood, adolescence, adulthood and to the elderly. The course examines the major determinants and facilitators of optimal health within each life stage. The epidemiology of disease within each stage and the interdependence of each stage will also be explored.

PUBH 9002 - SOCIAL DETERMINANTS OF HEALTH

This course will examine the roles of social and cultural factors as determinants of public health. Scholars are introduced to the cosmological and philosophical roots of scientific and folk/traditional thinking and how these world views have shaped social and cultural behaviours in the Caribbean. Themes that are explored include social stratification, gender, religion, race and culture, and their impact on individual behaviour. Participants will explore how social science disciplines are useful in analysing and solving public health challenges. Social violence and poverty as a social force will be examined. The relationship between these health determinants and public health interventions will be explored.

PUBH 9003 -APPLIED EPIDEMIOLOGY

This course should review and build on some of the basic epidemiologic principles and concepts; such as describe the nature of health problems, measures of disease frequency, investigation of outbreaks, disease surveillance, and evaluate the impact of interventions; that were presented in the Master of Public Health programme. There is also a special topics component in which students are required to prepare, analyse and present two special topics in public health to their colleagues in consultation with an assigned resource person.

PUBH 9004 – STATISTICAL METHODS IN PUBLIC HEALTH PRACTICE

This Biostatistics course provides an introduction to statistical methods appropriate for analysis of public health and biomedical research data. Students will cover basic statistical concepts such as descriptive statistics, confidence intervals and hypothesis testing as well as more specialised methods such as non-parametric data analysis, time-to-event data analysis and analysis of data from method comparison studies. They will learn how to carry out basic statistical data analysis using STATA statistical data analysis software. Laboratory exercises and homework assignments will include brief exercises as well as manipulation and analysis of clinical and epidemiological data sources. In order to fulfil requirements for passing this course,

students will have to complete and pass data analysis assignments and examinations that assess all the skills and objectives that were the basis of the didactic sessions.

PUBH 9005 – PUBLIC HEALTH POLICY

This course defines what we mean by policy and explores a framework for policy formulation and analysis, considering content, context, actors and processes. It reviews some of the theories that are useful in policy analysis and examines the principles and values guiding policy development. Caribbean case studies are critiqued and discussed. Students are required to write a policy or policy analysis that is needed in their country, to present it in class, amend it based on the class discussion and to submit it to the relevant authorities.

PUBH 9006- DOCTORAL SEMINARS I: FOUNDATION OF PUBLIC HEALTH

These seminars cover a number of topics of critical importance to public health that together explore the essence and scope of public health with particular attention to meeting the needs of the Caribbean and developing countries. The topics include the definition and scope of public health, its evolution and practice, equity in health and the Alma Ata Declaration, international success cases in health, Caribbean health systems, and the impact of structural adjustment and health reform on health in the Caribbean and the developing world.

PUBH 9007 – DOCTORAL SEMINARS II: LEADERSHIP DEVELOPMENT

The Doctoral seminars will explore several major approaches to understanding leadership based on current literature and personal experience. It will also examine leadership issues of critical importance to public health that will equip public health practitioners with skills needed to meet the needs of the Caribbean Region.

PUBH 9008 – PROGRAMME DEVELOPMENT MANAGEMENT AND EVALUATION

This course will focus on the assessment of needs and the development of appropriate programmes to address same using selected methodologies of programme/project planning. Option appraisal, strategic planning, organizational leadership and social marketing of the programme will also be addressed. The conceptualization of an evaluation process from the initial stages of the programme development and its implementation is also expected.

PUBH 9009 – RESEARCH METHODS FOR PUBLIC HEALTH PRACTICE

This course will build on what was delivered at the Masters level, reinforcing the various methods of qualitative and quantitative research. Emphasis will be placed on being able to lead and coordinate a research team. The principles of human subject research and academic ethics including authorship, scientific misconduct and conflicts of interest in scientific research and evaluation will be addressed. Also the role of funding agencies in setting of research agenda and responsibilities to studied populations.

PUBH 9010 – HEALTH SYSTEMS MANAGEMENT AND ORGANIZATIONAL

BEHAVIOUR

This course builds on management principles developed at the Masters level. It will review current health system types and underscores the principles that govern them and their effectiveness in achieving public health goals. The management of organizations will be addressed including the issue of authority and power in the health sector, strategic planning and organizational leadership.

PUBH 9014 – QUALITATIVE RESEARCH FOR PUBLIC HEALTH PRACTITIONERS

This course is designed to prepare students as qualitative researchers in the field of public health. It presents an introduction to the theoretical assumptions of research methods within the qualitative research paradigm. In this course students have an opportunity to learn and practice qualitative research skills and to develop an understanding of the importance of ethics and trustworthiness as part of good qualitative research design and practice. In addition, it will equip students to design, implement and report on a small-scale qualitative research project. At the end of the course they will appreciate how qualitative research theory informs practice and vice versa

PUBH 9015 – BEHAVIOUR CHANGE AND COMMUNICATION FOR PUBLIC HEALTH PRACTITIONERS

This course is designed to increase participants' understanding of behaviour change and communication principles and their applications in the field of public health leadership. The theories used in behaviour change and health promotion programmes will be covered. The course will also explore communication techniques and behaviour change processes that impact the individual, social, environmental and policy aspects that call for change in norms, values, beliefs, attitudes and behaviours.

Additional Information/Notes:

The end of year 2 Comprehensive Examination

The comprehensive end of year 2 exam will comprise of

A **Written Examination** which is offered in country for students not in Jamaica.

The **Observed Structured Public Health Examination (OSPHE)** which occurs at the DrPH offices at UWI Mona two weeks after the written portion of the Exam is complete.

The **Oral Examination** in which portfolios are reviewed and assessments of student's overall progress is discussed.

Portfolios

As a requirement for the DrPH programme students are to prepare a portfolio. It is due on the first day of the fifth block of face to face teaching.

Role of the portfolio

1. A means of documenting the student's work, life experiences, achievements and

competencies.

2. An introspective learning tool.
3. Guides the selection of field placements and electives.
4. Provides the basis for recommending any exemption from field placement.

Field Placements

Candidates are expected to complete 24 months of field placement. Experienced Public Health practitioners may be exempted for up to 12 months of field placement. The DrPH faculty reviews the student's portfolio and prepares a written report with a recommendation for exemption for consideration by the DrPH Specialty Board. The Specialty Board discusses each report and makes a final assessment of the period of exemption for each student. The final exemption period for each student is submitted to the Office of Graduate Studies and Research, Mona.

Exemption of field placement will take into account the following considerations:
Number of years of active public Health experience after achieving the MPH qualification. A rough guide is as follows:

- 3 - 5 years experience – up to 3 months exemption
- 6 – 7 years experience – up to 6 months exemption
- 8 years and more – up to 12 months exemption

The scope and depth of public health experience
The level of responsibility as a public health professional
The quality of the outputs and products included in the portfolio

The public health competencies achieved and clearly documented in the portfolio.
In special circumstances relevant experience and outputs prior to achieving the MPH qualification may be taken into account.

Documentation in the portfolio includes but is not limited to reports, policy documents, manuals, photographs, newspaper clippings and reflections highlighting areas and opportunities that fostered growth and development.

For each competency or area of specialisation:

1 – 3 months may be granted for each competency or area of specialization that is clearly demonstrated in the portfolio.

A rough guide for assigning exemptions on the basis of competency (ranked on a scale of 1 – 10):

- | | |
|--|-----------------|
| no exemption for a basic level of competency | (ranked 1 – 3) |
| 1 month for a fair level of competency | (ranked 4 - 5) |
| 2 months for a moderate level of competency | (ranked 6 - 7) |
| 3 months for strong levels of competency | (ranked 8 - 10) |

Department Contact Information:

DrPH program

Department of Community Health and Psychiatry
Gibraltar Camp Road
University of the West Indies , Mona

876-970-6549 or 876-970-6543

Email drph@uwimona.edu.jm

keisha.tracey@uwimona.edu.jm
deanne.ebanks02@uwimona.edu.jm

Programme Coordinators:

Professor J. Peter Figueroa - Programme Director
Dr Michelle Harris – Coordinator

MSc Cultural Therapy

In achieving its objectives, the program will provide the means whereby all students can acquire and demonstrate substantial understanding of and competence in the following areas:

(a) The scientific, methodological, and theoretical foundations of Cultural Therapy in which the program has its training emphasis. To achieve this end, the students shall be exposed to the current body of knowledge in at least the following areas: the use of cultural expressions and awareness as catalysts for change; principles of psychology; principles of psychohistoriography; principles of psychotherapy; management of small and large groups; wealth creation; the development of organizations; principles of management and mobilization; principles of social work; facilitation and stabilization of intellectual and social capital; human resource development; use of teams and catalysts;

(b) The practical aspects of cultural therapy in which the program has its training emphasis. To achieve this end, the students shall be exposed to the current body of knowledge in at least the following areas: dance; music; art; drama;

(c) Defining problems and formulating and implementing intervention strategies (including training in empirically supported procedures). To achieve this end, the students shall be exposed to the current body of knowledge in at least the following areas: effective intervention; and evaluating the efficacy of interventions, research methodology; and techniques of data analysis;

(d) Issues of cultural and individual diversity that are relevant to all of the above including group dynamics; role of the family; dysfunctional behavior or psychopathology; human frailty, and professional standards and ethics; and

(e) Attitudes essential for life-long learning, scholarly inquiry, and professional problem-solving in the context of an evolving body of scientific and professional knowledge.

Entry Requirements

Applicants should possess a first degree at the level of a Lower Second status at minimum. Graduates from a wide range of backgrounds will be considered for entry. Through the programme, persons who would not ordinarily have access to careers in health-related and community development fields, e.g. actors, artists, will be given that opportunity.

Duration of programme

Three years part-time or equivalent

Programme Structure

All Courses are 3 Credits unless otherwise indicated. All new courses are designated CT, CULT or MC. Students take their Supervised Practicum Experience either in Year 1 or Year 2. Course codes have been designated according to the old and new (Banner) systems.

Year 1	Year 1	Year 1
Semester 1	Semester 2	Summer
CT60A/CULT6000 Capstone Course In Cultural Therapy	CT60A/CULT6000 Capstone Course in Cultural Therapy	
CT61A/CULT6100 Educational Pedagogy	MS-66T Tourism Management	MC-666 Communication Skills
PS-61A Psychopathology	PS-65A (1CR) Ethics Seminar	
CT63A/CULT6300(2 Cr)		CT64A/CULT6400(0 CR) Supervised Practicum Experience (Group A)
Practical Module		
Year 2	Year 2	Year 2
Semester 1	Semester 2	Summer
CT60B/CULT6001 Capstone Course in Cultural Therapy	CT60B/CULT6001 Capstone Course in Cultural Therapy	
CT62A/CULT6200	CT66A/CULT6600	

(2 CR)

Elective Module

Rehabilitation
Management

Research Methods
(multiple course
options)

Project
Report

Preparation
CT64A/
CULT6400
(0 CR)

Supervised
Practicum
Experience
(Group B)

CT63B/CULT6301
(2 CR)

Practical Module

**Year 3
Semester 1**

CT60C/CULT6002
Capstone Course
in Cultural Therapy

Project Report

Preparation

CT63C/CULT63002
(2 CR)

Practical Module

Core Courses

**Year 3
Semester 2**

CT60C/CULT6002
Capstone Course
in Cultural Therapy

CT65A/CULT6500
(0 CR)

Creative Practicum

**Year 3
Summer**

Course Code	Course Name	No. of Credits	Course Weighting
CT60A, B,C	Cultural Therapy	9	Record keeping - 25% Analyses of processes and outcome - 25% Oral Presentations - 25% Participation and facilitation of group activities - 25% An evaluation will be made at the end of each 3-credit component (A,B and C) of the course.
CT61A	Educational Pedagogy	3	Activity Plan - 25% Group Paper - 25% End of Term Examination- 50%
CT66A	Rehabilitation Management	3	Essay - 25% Group Paper - 25% End of Term Examination- 50%
CT63A B,C	Practical Modules	6	Site Supervisors Evaluation - 10% Portfolio - 30% Oral Presentation - 30% Written Report - 30%
CT64A/B	Supervised Practicum Experience	Pass/Fail 3	Site Supervisors Evaluation - 10% Portfolio - 30% Oral Presentation - 30% Written Report - 30%
CT65A	Creative Practicum	Pass/Fail 3	Project Report - 100%
PS61A	Psychopathology	3	Individual/Group Papers End of term examination
PS63A	Clinical Research Skills	3	Coursework End of Term Examination
MC666	Effective Communication	3	Course work End of Term Examination

MGMT 6136	Entrepreneurship & Innovation Management	3	Course work End of Term Examination
PS65A	Issues of Caribbean Psychology: Ethics and Professional Practice Seminar	Pass/Fail 1	Student-led seminars 100%

Elective

Course Code	Course Name	No. of Credits	Course Weighting
CT62A	Elective Module	2	Dependent on course chosen

Course Description:

CT60A, B,C: Cultural therapy

The program of Cultural Therapy consists of five broad areas: Ethno historical large group meetings; Centring Exercises; Psychohistoriographic Analysis; Collective poetry, play and musical writing/creation; Evaluation.

CT61A: Educational Pedagogy

This course is designed to equip students with a basic understanding of the theory behind teaching and learning. Emphasis will be made on the role of education as a tool for social change. Areas emphasized include planning for instruction, instructional strategies and evaluation and assessment of student learning. Classroom management strategies will also be addressed. The technology aspect of the course will include word processing, presentations, record keeping, and computer-aided instruction (CAI).

CT66A: Rehabilitation Management

Students in this course will examine the practical aspects of nursing, physiotherapy and occupational therapy that relate to Cultural Therapy. The course explores human movement and its importance in motivation, the detection of signs of medical illness, dealing with elderly, frail or disabled individuals, behaviour management in rehabilitation, and the assessment and management of daily living and vocational skills.

CT63A, B, C: Practical Modules

The practical module is designed to expose students to the Visual and Performing Arts, Music and Dance, Floral Arrangement and Crafts as well as other activities deemed appropriate by the course coordinator. It is expected that students will complete modules outside of their area of expertise in order to broaden their skill base.

CT64A/B: Supervised Practicum Experience

After their first or second year in the programme students will spend their summer attached to sites where they can receive practical experience in Cultural Therapy and build upon skills developed during the year. Students must be under the supervision of a person working in the field. Students would be required to spend at least 4 days per week at their site. Students experiences will vary but should include opportunities to strengthen key Cultural Therapy skills, including planning, analysis, writing, organization, record keeping, teamwork, and problem solving. In addition, students will be involved in evaluating the effectiveness of their site by collecting empirical data. The course will bridge the gap between academic coursework and the practical knowledge, skills and emotional challenges that are inherent in the real world of the helping professional.

CT65A: Creative Practicum

At the end of their programme students will create and participate in a project designed to create or stimulate wealth in a community setting. Students will design their own work projects, set goals, and work throughout the summer on achieving the pre-set outcomes. Students will make adjustment to the design of their project when their current contexts indicate it is necessary to do so. Any such allowances will be recorded in the final report, and details of how these adjustments affected the project outcome will be presented. Results will be written up and presented to the course coordinator for assessment.

PS61A: Psychopathology

This course aims to provide students with the knowledge and skills required to accurately diagnose the wide range of mental health problems affecting adults, adolescents and children in the Caribbean. The course will focus on the multi-axial diagnostic approach of the Diagnostic and Statistical Manual - IV.

The course will begin with a review of the development of the multi-axial approach, cover issues pertaining to the reliability and validity of making a diagnosis and discuss the stigma of being diagnosed with a mental illness. All major diagnostic categories of mental illness will be discussed, including the diagnostic criteria, associated features and risk factors. Special attention will be given to the application and relevance of the diagnostic categories to the Caribbean people.

PS63A: Clinical Research Skills

This course will commence with an overview of the research process. The course will progress by walking students through the research process, and the consideration necessary for good research design and results. Students will throughout the course be exposed to a wide range of

statistical analyses that will strengthen their ability to make informed decisions about the tools available to provide the best results in their own research. Basic statistical concepts, including correlation, regression, and comparison of means, will be covered, as well as more advanced statistical procedures, such as multiple regression, factor analysis, and advanced analysis of variance techniques.

MC666: Effective Communication

The course aims at helping students develop their listening, speaking and writing skills for a variety of workplace situations and professional purposes. Activities centre on planning, organizing, composing, and revising messages with sensitivity to verbal and non-verbal cues. Documents developed both in class and as home assignments include occupational writing for correspondence letters, memos, e-mail, reports and proposals. Participants will also enhance their skills in public speaking and other forms of oral presentations conveying messages with an emphasis on clear, concise communications.

PS65A: Issues of Caribbean Psychology: Ethics and Professional Practice Seminar

This course will be attended by all students in the programme and delivered via student led seminars. The goal is to develop an awareness of current professional and ethical issues in the practice of clinical psychology, and to foster an awareness of the specific context of future practice within the Caribbean region.

List and describe other courses here

CT62A: Elective Module

At the end of the course students will be able to demonstrate competence in the areas they have chosen for study.

Programme Coordinator: Professor Frederick Hickling

DM Psychiatry

Programme Objectives:

The DM Psychiatry is a four year graduate course which aims to provide the graduate with the knowledge and skills to function as a consultant psychiatrist equipped for independent practice in hospital-based settings, stand-alone facilities and community mental health services.

Entry Requirements

(The general regulations for the degrees of Doctor of Medicine apply).

Applicants will be eligible for entry after completing their medical internship and becoming fully registered as medical practitioners by the Medical Council of Jamaica. Candidates will be required to submit a written application and may be required to attend an interview to be eligible

for selection to the programme.

Duration of programme

Four years full-time

Programme Structure

Part I (Year 1): Psychology, Anatomy, Physiology, Adult & Emergency Psychiatry

Part II (Year 2): Psychotherapy, Biostatistics & Research Methods, Addiction Psychiatry, Child & Adolescent Psychiatry, Neurology, General Adult & Emergency Psychiatry

Part III (Year 3): Psychotherapy, Supervised Research, Consultation-Liaison Psychiatry, Geriatric Psychiatry, General Adult & Emergency Psychiatry

Part IV (Year 4): Forensic Psychiatry, Community Psychiatry, Outpatient Services, General Adult & Emergency Psychiatry

Courses

Course Code	Course Name	Course Weighting
MD 614	DM Psychiatry Part I	100% Exam
MD 613	DM Psychiatry Part II	100% Exam
To be Assigned	DM Psychiatry Part III	100% Exam
To be assigned	DM Psychiatry Part IV	100% Exam

Course Description:

Part I (Year 1): During this period, which lasts twelve months, the students work as a psychiatric resident at an approved general hospital. Instruction is given in the Basic Medical Sciences (including Anatomy, Physiology) as well as in Psychology and Psychiatry.

Part II (Year 2): Entry to the second part of the course will depend on a satisfactory performance in the Part I examination.

During this period which lasts twelve months, the students work as a psychiatric resident at an approved general hospital. Instruction is given in Neurology, Psychology and Psychiatry. During the first half of Year 2 of the programme, the Student will submit to the Specialty Board through his/her supervisor, a proposal for a project to be undertaken during Part III of the

programme.

Part III (Year 3):

Admission to Part III of the programme depends upon the students performance in the Part 2 examination. During Part III, the candidate is required to spend six months working in an approved psychiatric service and at least twelve months working in the psychiatric services of an approved general hospital.

At least six months of this year must be spent in the Caribbean during this period. At the end of the time period, students may submit a Case Book or Research Report.

Part IV (Year 4)

During this year the student continues to work under supervision in an approved psychiatric service.

Department Contact Information:

The Department of Community Health & Psychiatry Faculty of Medical Sciences
The University of the West Indies, Mona
Jamaica, West Indies

Programme Coordinator: Dr. Roger Gibson

Clinical Fellowship in Child & Youth Psychiatry

Programme Objectives:

Graduates of this programme will perform at an international level while being responsive to regional needs. They will institute more effective ways of managing children and youth within the Caribbean Diaspora, hence advancing the development of the region and its people socially, culturally and economically. More specifically, graduates will demonstrate substantial understanding of and/ or competence in the following areas:

1. The practical aspects of child and youth mental health issues associated with the Caribbean region and the wider Caribbean Diaspora.
2. The prevalence, common presenting symptoms, and course of psychiatric disorders in children and youth as well as the currently accepted psychiatric, pharmacological, rehabilitative, and psychosocial treatments.
3. Formulating different psychodynamic explanations for, and interpretations of disordered behaviours and using these to guide approaches to their management.
4. Developing approaches to problem solving and skill-building aimed at reducing the frequency and intensity of disturbed behaviour as well as teaching patients the skills for solving their own problems.

5. Formulating an approach to the management of children and youth with substance use disorders, and recognize the presence of comorbid psychiatric disorders.
6. Formulating an approach to the evaluation and management of children and youth with serious mental disorders.
7. Applying research findings in brain dysfunction and neuroimaging as they apply to psychiatric disorders in children and youth, and demonstrating an awareness of how these findings inform the clinical management of these conditions.
8. The importance of the nature of the structures of families in the development and maintenance of psychopathology.
9. The various models of therapy and strategies for intervention and treatment.
10. Identifying and being guided by their risks and benefits when prescribing medications, especially “off label” drugs, for children and youths.
11. The pervasive impact on the development of children and youth of individual and community-based aggression and violence, and be aware of critical issues in the management of acute and chronic trauma.

Entry Requirements:

A Doctor of Medicine degree in Psychiatry or a Doctor of Medicine degree in Paediatrics, or equivalent training

Duration of programme:

Two years

Programme Structure:

The Clinical Fellowship in Child & Youth Psychiatry is a full time clinical programme with attachment at the University Hospital of the West Indies.

Enrollment Option – Full Time

Courses

Course Code	Course Name	No. of Credits
MEDC 9000	Paediatric Development	3
MEDC 9010	Psychopharmacology	3
MEDC 9020	Psychotherapies	3
MEDC 9100	Psychiatric Disturbance of Affect	3
MEDC 9110	Disturbance in Mood	3
MEDC 9200	Attentional and Behavioural Manifestations	3
MEDC 9210	Psychiatric Aspects of Drug Abuse	3
MEDC 9220	Forensic Psychiatry	3
MEDC 9300	Somatization Patterns	3
MEDC 9310	Neuropathology of Movement	3

MEDC 9320	Abnormal Paediatric Development	3
MEDC 9400	Research Methods	3
MEDC 9500	Comprehensive Examination	-
MEDC 9510	Research Project	-

TOTAL NUMBER OF CREDITS Required: 36

MEDC 9000 Paediatric Development

Course Description: This course provides advanced knowledge in the development of the child as a fairly predictable process of complex interactions between genes and the environment and between a child and his or her caregivers. The process is uneven with periods of activity and quiescence, and with variability between individuals.

MEDC 9010 Psychopharmacology

Course Description: The course examines the application of pharmacological agents for the treatment of psychiatric disorders. Neuroanatomy and neurotransmitter systems are reviewed, and an understanding of the mechanisms in neuronal circuitry and rationales for treatment with drugs.

MEDC 9020 Psychotherapies

Course Description: This course provides theoretical and practical exposure to the potentially beneficial process that is embedded in the verbal interaction between a professional psychotherapist and a patient, family, or group of patients. Psychotherapy with children and youths involves the integration of more models of treatments than for adult psychotherapy.

MEDC 9100 Psychiatric Disturbance of Affect

Course Description: Anxiety which impairs the functioning of the child and youth across the domains of family, school or work, peers, and self-management is considered to be a disorder. The appropriateness of the anxiety classification for children is still in need of categorical criteria and empirical confirmation. This course reviews the current group of disorders; generalized anxiety, separation anxiety, acute stress disorder, post traumatic stress disorder, obsessive compulsive disorder, their origin, management and clinical course.

MEDC9110 Disturbance in Mood

Course Description: Disturbances in mood occur throughout the life span of all people and are common experiences, but having depressive symptoms is not equivalent to having a depressive disorder. This course examines the criteria for the depressive disorders; major depressive disorder, dysthymic disorder, bipolar disorder, as well as the sub-syndromal variants of the disorders. It also reviews their diagnosis management and clinical course among children and youths.

MEDC 9200 Attentional and Behavioural Manifestations

Course Description: This course focuses on attentional and behavioural disorders which interfere with a child's ability to function in school, home, or the community and this may severely interfere with the child's ability to get the most out of education, establish and maintain interpersonal relationships, and maintain a generally positive sense of self. The behaviours disrupt the child's environment. Symptoms range from inattention or hyperactivity to repetitive behavior where the rights of others or the current social norms are violated.

MEDC 9210 Psychiatric Aspects of Drug Abuse

Course Description: This course examines in detail the heterogeneous group of mental disorders related to control of a pattern of impulses and compulsions in seeking psychic effects from a variety of substances. The substances include, but are not limited to, marijuana (cannabis), cocaine, nicotine, alcohol, and opioids, natural or synthetic hallucinogens.

MEDC 9220 Forensic Psychiatry

Course Description: This course will review matters of legal importance in the practice of Child and Youth Psychiatry while also taking into account the ethical principles of clinical care which are autonomy, beneficence, justice and non-maleficence.

MEDC 9300 Somatization Patterns

Course Description: The shared phenomenon in this mixed group of disorders is physical symptoms without demonstrable physiological mechanism or cause, and severe enough for functional impairments. The symptoms are linked to psychological factors, such as childhood trauma, and or to interpersonal conflict. This course reviews the etiology, diagnosis, management, clinical outcome of these disorders.

MEDC 9310 Neuropathology of Movement

Course Description: Movement disorders are closely linked with neurology, usually associated with a mental disorder, and are experienced as an indistinct border between voluntary and involuntary actions. Tics tend to be intermittent, multifocal, stereotyped, and repetitive. Complex tics include gestures and vocalizations, and simple tics are common in the general population. This course reviews the occurrences of movements in children and youths and their management.

MEDC 9320 Abnormal Paediatric Development

Course Description: The assessment of children and youth requires developmentally sensitive adjustments to diagnostic criteria, as the expression of psychopathology changes in both magnitude and character as development progresses. In developmental disorders there are deficits or dysfunctions in expected development, shaped by genetic, prenatal, postnatal, biological, psychological, and environmental age-related changes in development. This course reviews the diverse developmental disorders their diagnosis, management, and clinical course.

MEDC 9400 Research Methods

Course Description: This course will allow students to acquire and/ or review the research knowledge and skills required to prepare their research project as well as a research paper for publication.

MEDC 9500 Comprehensive Examination

Course Description: At the end of the programme, students will be required to sit a comprehensive examination.

MEDC 9510 Research Project

Course Description: At the end of the programme, students will be required to present a clinical research project on an area of child and youth psychiatry and of a standard comparable to peer-reviewed publications.

Department Contact Information:

Section of Psychiatry
The University Hospital of the West Indies
Mona, Kingston 7
Jamaica

DEPARTMENT OF MICROBIOLOGY

Head: Dr. Alison Nicholson

The Department of Microbiology offer the following graduate programmes

MSc Medical Microbiology

MPhil/PhD Medical Microbiology (by research)

DM Medical Microbiology

Master of Science in Medical Microbiology

Aims and Objectives of the programme

Provide graduates with a systematic understanding of the scientific basis of microbiological concepts.

Produce graduates who are equipped with the knowledge, analytical and practical skills to permit them to pursue careers in the microbiology in hospital, diagnostic laboratory or research settings.

Prepare graduates for terminal degree training in medical microbiology (MD, DM, PhD, DPhil).

Entry Requirements

MSc

Candidates for the MSc Microbiology must hold a degree in medicine or at least an Upper Second-class Honours degree of a recognised university in science or medicine. Candidates with an appropriate technical qualification and work experience, or equivalent qualifications, will also be considered for admission to the course following an interview by the Specialty Board. Graduates in a science not specializing in General Microbiology or Medical Microbiology will be required to complete a qualifying year and examination before admission to the programme. Candidates who hold the MBBS and BBMedSci of this University or those who have similar qualifications may apply for exemption from the qualifying examination by presenting details of their courses and examination results.

Doctor of Philosophy

Candidates intending to study for the PhD degree must hold an appropriate Masters Degree in Medical Microbiology. All other candidates must first register for the MPhil but may transfer their registration after at least one year of study based on the recommendation of the supervisory committee and:

- (a) Submission of a research proposal of a standard suitable for a terminal research degree
- (b) Presentation and defence of their research proposal before an assessment committee
- (c) Independent assessment by the department

The award of the degree is based on presentation of a thesis of original research which significantly advances the discipline of microbiology.

The examination for the degree is by assessment of the thesis and a viva voce examination.

Doctor of Medicine Microbiology

Requirements for entry

1. Candidates must be fully registered medical practitioners in one of the territories of the Commonwealth Caribbean.
2. Applicants will be eligible for entry after completing their internship

Areas of Research

1. Antibiotic resistance
2. Immunological, molecular and genetic bases of infectious diseases
3. Autoimmune diseases
4. Epidemiology of Parasitic and Neglected Tropical Diseases
5. Central nervous system viruses

Seminars :

PhD and MPhil 1 per semester MSc 1 per year DM 1 per year

Duration of programme:

(Including Internship, Research Project, other) 2 years

Programme Structure:

This programme is an upgrade of the current MSc (Medical Microbiology). In the revised format the course offers the following advantages:

1. Allows GPA ratings and therefore more acceptability internationally
2. Facilitates easier delivery and accreditation.
3. Lends itself to students assessment of teaching and course evaluation.
4. Formal teaching of Research skills which will ensure a graduate with better potential to design studies, conduct research and undertake a terminal degree (PhD, DPhil, DM) training
5. Provides funds to the department from fees which can be used to support the programme and turn a profit. Currently, the MSc programme is funded from the departments annual subvention and Consultation Funds, neither of which have line listings for graduate studies.

Courses (Core)

Course Code	Course Name	No. of Credits
MICR6210	Medical Bacteriology	5
MICR6225	Medical Mycology	3
MICR6250	Molecular Biology Applied to Diseases	2
MICR6703	Research Project	6
MICR6554	Research Methods	3
MICR6380	Medical Virology	5
MICR6285	Applied Medical Immunology	3
MICR6290	Medical Parasitology	2
MICR6560	Diagnostic Medical Microbiology	6

Course Description:

MICR6210 Medical Bacteriology

The module will provide candidates with advanced knowledge of General and Systematic Medical Bacteriology. Core elements of the course are principles of bacterial classification and pathogenesis, prevention, treatment and control for medically important bacterial infections. Further, the module will enable the student to understand the principles, advantages and limitations of commonly performed laboratory diagnostic methods for bacterial isolation and identification.

MICR6380 Medical Virology

The course will provide candidates with advanced knowledge of medical virology. At the end of this module, the student should demonstrate an understanding of the principles of viral classification, pathogenesis, prevention, treatment and control. Further, the module will enable the student to understand the principles, advantages and limitations of commonly performed laboratory diagnostic methods for viral isolation and identification.

MICR6285 Applied Medical Immunology

The course aims to provide an understanding of the interaction of viruses, fungi, bacteria and parasites with the immune system of humans and to examine the role of vaccination in protection against these diseases. Furthermore, it will examine the biological basis of common immune disorders of humans including autoimmune diseases. On completion of this module, the student will be able to understand the nature of humoral and cell-mediated immune responses to infections and to discuss the role of cytokines in the modulation of response to infection.

MICR6250 Molecular Biology Applied to Infectious Diseases

Molecular biological techniques have become an important aspect of understanding the pathogenesis of infectious diseases and a tool in their laboratory diagnosis. The aim of the course is to provide students with knowledge of the structure and function of nucleic acids of infectious agents and how this understanding can be applied to study of their pathogenesis and laboratory

MICR6290 Medical Parasitology

Parasites remain a major threat to human welfare and there is heightened interest in their epidemiology and control and in some instances elimination. The course is designed to provide the candidates with knowledge of the range of parasitic infections of humans and their associated morbidity and mortality

MICR6225 Medical Mycology

This module will expose candidates to advanced medical mycology enabling them to describe the classification, pathogenesis and clinical features of fungal infections. Candidates will become familiar with the principles of laboratory diagnosis of fungal infections including recently developed techniques. The approach to antifungal therapy with the range of antifungal agents, their mechanisms of action and susceptibility testing as well as the side effects commonly associated with them will be explored.

MICR6554 Research methods

This course provides the theoretical basis for successful design and conduct of scientific research projects. The objective of the course is to give candidate the requisite skills to design and conduct a research project; analyse and report in writing and orally on the finding.

MICR6703 Research Project

The objective of the module is to train the candidate in the rigours of scientific research through the conduct of a research project. Candidates will have primary responsibility for all aspects of the research project including definition of problem, proposal writing and ethical approval, data management and thesis preparation. Each student will be assigned a Departmental supervisor who will form a research committee according to the Graduate Studies Guide for Students and Supervisors.

MICR6560 Diagnostic Medical Microbiology

The course is designed to train the candidate in the laboratory diagnosis of infectious diseases. Candidates will spend time in the diagnostic laboratories of the various sub-disciplines of microbiology including bacteriology, virology, immunology, mycology and parasitology. A manual with full details of the microscopic, serological and molecular assays which the candidates are expected to learn and perform will be presented at the start of the course

Department Contact Information:
Cheryl Blackwood
Department of Microbiology
University of the West Indies,
Mona, Kingston, Jamaica, West Indies

Programme Coordinator: John Lindo

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

Head: Dr. Carole Rattray

The main focus of the department is to improve the health and welfare of families, in particular women and children in the region. This is done through clinical (service) work and academic (teaching and research).

One of our main mandates is training of students at the undergraduate and post graduate level to ensure that there is an excellent cadre of doctors at all levels available to our women to ensure good health through prevention and treatment of disease.

DM Obstetrics and Gynaecology

Entry Requirements:

The applicant should be:

(a) a well-rounded medical graduate of The University of the West Indies or a University or Medical School recognized by The University of the West Indies.

(b) fully registered in the territory or territories in which training will take place.
Students who are required to must have passed the CAMC Exam

Areas of Research

Research must be done in an area directly associated with Obstetrics and Gynaecology
Duration of programme: The program lasts four years

Programme Structure:

At the end of the first year students do part one examination in basic sciences related to Obstetrics and Gynaecology

At the end of the fourth year students do Part two exit examination.

In addition students must write 10 Gynaecological and 10 Obstetric short commentaries of interesting cases they have managed during training. Also they must write One Gynaecological and One Obstetric long commentary of a prospective or retrospective study in an area chosen by them or their supervisor.

Course Description:

Year 1: Foundation: General Overview of Obstetrics and Gynaecology and relevant Basic Sciences.

Year 2: 2 A Development of Investigative and Surgical Skills 1.

2 B Obstetrics 1: Common Obstetrical Problems.

2 C Gynaecology: Common Gynaecological Problems.

Year 3: 3 A Reproductive Endocrinology.

3 B Advanced Investigative and Surgical Skills 2.

3 C Project/ Electives.

Year 4: 4A Obstetrics 2: Advanced Obstetrics.

4 B Gynaecological Oncology.

4 C Urogynaecology.

Additional Information/Notes:

At the end of the course successful applicants can be registered as specialist consultants in Obstetrics and Gynaecology in the contributing territories of the University of the West Indies and also in other countries where the degree is recognised.

Department Contact Information:

Mona, Kingston, Jamaica

Dr Bharat Bassaw Mount Hope, St. Augustine, Trinidad

Dr Garth McIntyre Cave Hill, Barbados

Dr James Johnson Princess Margaret Hospital, Nassau, Bahamas

Programme Coordinator: Professor Horace Fletcher

DEPARTMENT OF CHILD HEALTH

Head: Dr. Roxanne Melbourne-Chambers

DM Paediatrics

The Department of Child Health offers a full-time degree leading to the awarding of a Doctor of Medicine (Paeds) degree. The programme aims at providing exit qualifications for graduates to practice independently at Consultant Paediatric level. Since its inception in 1970, there have been 100 graduates in Paediatrics up to December 2009. Graduates are scattered throughout the Caribbean, North Americas and the UK with many of our graduates currently practicing in the region.

Programme Objectives:

On completion of the DM Paediatric Programme the graduate will be competent to function as a consultant paediatrician having been trained with sound knowledge of normal growth and development and the knowledge, skills and attitudes encompassing the diagnosis and treatment of a broad range of clinical conditions from newborn to adolescence. This graduate will be equipped for independent practice in the community and hospital based settings (inpatient and ambulatory). He/she should be able to collaborate with other segments of the health team (including subspecialties) as well as community resources. He/she should be a health advocate who is sensitive to the cultural, social and ethnic needs of the community, in addition to having a commitment to life long learning and personal development.

Entry Requirements

Candidates must be fully registered medical practitioners in one of the territories of the Commonwealth Caribbean or in any country associated with the University of the West Indies where the facilities are approved by this institution for a part or the whole of the period of training.

Evidence of undergraduate medical qualification from an institution acceptable to the Faculty of Medical Sciences, the University of the West Indies, must be provided.

Candidates should have a minimum of three months post internship experience in the practice of paediatrics at an approved hospital under constant supervision. This three month period is additional to the period of three months of paediatric training required during the internship period.

Candidates will be required to submit a written application and attend an interview to be eligible for selection to the programme.

Duration of programme: Four years

Programme Structure:

The DM Paediatrics programme is a four year graduate course which aims to provide the graduate with the knowledge and skills to function as a consultant paediatrician, equipped for

independent practice in the community and hospital based settings.

There are two parts to the course DM 1 (years 1 and 2) and DM 2 (years 3 and 4).

During the first two years of training, the resident will have three month rotations in in-patient, neonatal care, and ambulatory settings. The core content of training includes basic sciences as applied to general paediatrics, normal growth and development, common primary care problems and emergencies, common subspecialty problems, public health issues and basic research methods and skills.

Years 3 and 4 of training encompass learning of the pathophysiologic mechanisms related to growth, development and disease, clinical exposure and training in the subspecialties, development of leadership skills and professional qualities, completion of the required research project and a six month elective period.

DM1

Year 1 and Year 2

Rotations: inpatient, nursery, ambulatory (clinics, walk-in, emergency)

Core general paediatric content

Basic sciences as applied to general paediatrics

Normal infant, child and adolescent growth and development

Common primary care problems

Common emergencies

Community paediatrics

Common subspecialty problems

Public health, health promotion and prevention issue

Basic research methods and skills*

DM 2

Year 3: Completion of research project and subspecialty core rotations; elective

Year 4: Elective; Senior supervisory role

Pathophysiologic mechanisms related to growth, development and disease

Subspecialty exposure and training

Focused development of the following areas to enhance supervisory function:

Clinical Decision Making

Team leadership

Collaboration

Professional development

Scholarly activity

*It has been suggested that residents in year 2 should formulate and present their research protocols as an application of knowledge in basic research methodology. This will also facilitate expeditious implementation of their projects in year 3 of the programme.

Additional Information:

Trainees will be eligible to sit the DM 1 examination at the end of year 2 having had satisfactory assessments for that period. Candidates will be eligible to sit the DM 2 examination two years after successful completion of the DM 1 examination but not greater than four years after at the next available examination. The candidate must submit their research project at least six months before the completion of the DM 2 programme.

The research project should form a distinct contribution to the knowledge of the subject presented. It must be of satisfactory literary standard and should attain standards suitable for publication in a peer reviewed journal.

The acceptance of the research project by the Specialty Board is a requirement for eligibility to sit the DM 2 examination.

Examination Format

The DM 1 examination consists of

- (a) One multiple choice question paper
- (b) A clinical examination
- (c) An oral examination.

The DM 2 examination consists of

- (a) Two written papers, which may include multiple choice questions
- (b) A clinical examination
- (c) An oral examination.

Department Contact Information:

Department of Child Health University of the West Indies, Mona Telephone Number:
970-0329 Fax Number: 927-1446

Programme Coordinator: Minerva Thame

Postgraduate diploma in Loss Grief and Trauma Management

Programme Objectives: To help persons acquire specialist skills and competencies in grief and trauma counselling

Entry Requirements:

Graduate degree in Psychology or related field in Counselling.

Minimum requirement is a first degree from an accredited university in a professional discipline such as social work, guidance counselling, medicine or nursing, theology.

Duration of programme: One year

Programme Structure: Module structure with each module of one month duration; Blended delivery including online teaching and face to face classes on weekends

Enrollment Option: Part-Time and Online

Core Courses

Course Code	Course Name	No. of Credits
LGTM 5001	Theoretical Explanations of Grief	2
LGTM 5002	Normal and Complicated Grief	2
LGTM 5003	Data Management for Practitioners	2
LGTM 5004	Traumatic Loss	2
LGTM 5005	Interventions Working with Trauma	2
LGTM	Group/Crisis Intervention	2
LGTM 5007	Grief Counselling	2
LGTM 5008	Practice and Ethics of Counselling	2

Courses (Electives)

Course Code	Course Name	No. of Credits
LGTM 5009	Parent-Child Separation	2
LGTM 5010	Infertility Loss and Adoption	2
LGTM 5011	Living with Terminal Illness	2
LGTM 5012	Psychological First Aid	2

TOTAL NUMBER OF CREDITS FOR DEGREE / DIPLOMA - 20

Course Description

LGTM 5001- Theoretical Explanations of Grief

Course will examine different types of loss and grief situations from a cultural perspective and examine religious, socio-cultural and medical explanations of grief behaviour.

LGTM 5002 – Normal and Complicated Grief

Course will examine presentation and characteristics of normal and complicated grief and differences in the way adults and children of various ages interpret and handle grief.

LGTM 5003 – Data Management for Practitioners

Course is an engagement in practical action where students will develop and extend their research and evaluation skills and utilise research findings in the counselling setting.

LGTM 5004 – Traumatic Loss

Course will discuss several approaches to defining and assessing the impact of trauma across the life span, with a specific focus on violent deaths by homicide and suicide and how to facilitate recovery from these traumatic losses.

LGTM 5005 – Interventions Working with Trauma

Course will critique the efficacy of various interventions utilised in the management of loss, grief and trauma with a focus on Cognitive Behaviour Therapy (CBT), Eye Movement Desensitization and Reprocessing (EMDR) and Suicide Risk Management and Prevention for children and adults.

LGTM 5006 – Group/Crisis Intervention

Course will teach the principles involved in facilitating group intervention, as well as address general principles of crisis intervention in public spaces. Drug addiction and its subsequent grief and loss will be used as a model for applying group intervention.

LGTM 5007 – Grief Counselling

Course will help students put in practice theoretical knowledge on grief and loss with youth, adults and the elderly through use of role playing, modelling of counselling techniques, case studies and self-evaluation.

LGTM 5008 – Practice and Ethics of Counselling

Course will review and examine the theoretical and ethical practice of counselling as a

profession and its use in situations of loss and grief.

LGTM 5009 – Parent-Child Separation

Course examines parent-child separation due to parents' migrating, being incarcerated, or separated for both legal and non-legal unions, and discusses strategies that can be used in the home and school setting.

LGTM 5010 – Infertility Loss

Course will help students better understand the counselling needs of couples challenged by infertility, and train practitioners to become more aware of the needs and concerns of vulnerable children in institutional care, fostering or adoption and increase their competencies at managing these families.

LGTM 5011 – Living with Terminal Illness

Course will examine children's understanding of death, ethical decision making and symptom management at the end of life, family dynamics when a child is critically ill, and provide practical ways to improve communication skills for health care workers.

LGTM 5012 – Psychological First Aid

Course will examine loss, grief and trauma associated with natural and man-made disasters including mass casualty occurrences such as school shootings, civil unrest and insurgences, and review the use of psychological first aid (PFA) as an intervention strategy.

Department Contact Information:

Department of Child and Adolescent Health,
Faculty of Medical Sciences
Tel/Fax: (876)-927-1446
Email: childhealth@uwimona.edu.jm

Programme Coordinator: Dr Audrey M Pottinger

THE HUGH WYNTER FERTILITY MANAGEMENT UNIT

Director: Professor Joseph Frederick, MBBS, DM, FRCOG, FACOG

The Hugh Wynter Fertility Management Unit, Department of Obstetrics and Gynaecology, Department of Obstetrics, Gynaecology and Child Health, offers the following graduate degree programmes and in-service training programmes for senior nurses, Obstetricians and Gynaecologists in 2009/2010.

Graduate Programme: MSc Counselling

Short In-Service Departmental Training Courses for Registered Nurses, Nurse-Midwives, Nurse Practitioners and Obstetricians and Gynaecologists are also offered for continuing education :

1. Family Planning and Sterilization Techniques for Nurses (February 15- 26, 2010).
2. Family Planning and Reproductive Health Administration (May 10-21, 2010)
3. Sexual and Reproductive Health for Medical Doctors and Senior Nurses (October 18-29, 2010).

For details of these brief in-service training courses please see the attached training schedule for 2009-2010.

MSc Counselling

Specializations/Options :

Psychodynamic Counselling Cognitive-Behavioural Counselling Eclectic-Integrative Counselling

The objectives of the programme are:

1. To develop a thorough knowledge of the philosophy, assumptions, principles, elements, concepts, and techniques of Person Centred, Existential, Psycho-dynamic and Cognitive-Behavioural Schools of Counselling.
2. To develop high levels of competence in the practical application of this theoretical knowledge so as to facilitate specialization in any one of these approaches to counselling or the use of an eclectic or an integrative approach in keeping with the counsellors personal preferences, philosophy or values and the needs of their clients.
3. To provide supervision in a variety of counselling practical to increase skill levels in counselling.
4. To improve self-awareness and counselling effectiveness by providing on-site group therapy training and by encouraging students to obtain therapy for themselves.

5. To develop a cadre of counsellors in the fields of education, social services and health who will be trained to deliver individual and group counselling and family therapy services in their respective countries in the West Indies.

6. To develop a cadre of highly trained and qualified counsellors who are able to adapt predominantly European and North American counselling models to the West Indian context and who will have the research skills, the theoretical foundation and the practical expertise required to ultimately develop their own models of counselling which will be relevant to West Indian experiences.

7. To provide counsellors with the kinds of experiences which will increase their awareness of the high standards of ethical practice which are expected and required of counsellors and which they should demonstrate in their own personal and professional conduct.

Entry Requirements:

Applicants should have an Upper Second Class honours first degree in Counselling or in related fields in Health, Education, Social Work, Psychology or Pastoral Counselling/Theology from an institution acceptable to the University of the West Indies for this purpose. Applicants should also have at least three years work experience. All applicants must possess an advanced level of ability to work in English. Entrance is competitive so only the most qualified persons will be accepted.

Applicants should also have done the following qualifying courses at the undergraduate degree level, or if not, they will be asked to do the following qualifying or pre-requisite courses before starting the Masters programme:

Pre-Qualifying Programme (2009- 2010)

OG60A.Introduction to Individual Counselling

OG60DDevelopmental Psychology

OG60BIntroduction to Group Counselling

OG60C Abnormal Psychology

Duration of programme:

Three years part-time and four years for those without a Psychology first degree who need to do the qualifying/pre-requisite courses.

Programme Structure:

The MSc Counselling programme will be offered as a three year programme, except for persons who lack the qualifying courses and who will therefore have to complete and pass the qualifying courses before being admitted to the Masters programme.

Year 1 Semester 1	Year 1 Semester II	First Summer School
1. Person-Centred Counselling Groups	1. Existential Counselling with Individuals	1. Group Counselling: Personal Growth
2. Professional Issues Part I: Ethical and Legal Issues	2. Research Methods II: Quantitative Methods	2. Research Methods II: Qualitative Methods
3. Practicum 1	3. Practicum 2	3. Sexuality Workshop
Year II Semester I	& Year II Semester II	Second Summer School
Either Option I	Option I contd.	
1. Psycho-dynamic Counselling with Individuals	1. Developing an Eclectic/ Integrative Approach to Counselling	1. Vocational Counselling
2. Practicum 3	2. Family Therapy	2. Psycho-dynamic Counselling with Groups
	3. Practicum 4	3. Conflict Resolution Workshop
Or Option II	And Option II contd	
Year II Semester I	Year II Semester II	Second Summer School
1. Cognitive-Behavioural Counselling with Individuals Part I	1. Cognitive –Behavioural Counselling with Individuals Part II	1. Vocational Counselling
2. Cognitive-Behavioural Group Counselling	2. Family Therapy	2. Psycho-dynamic Counselling with Groups
3. Practicum 3	3. Practicum 4	3. Conflict Resolution Workshop
Or Option III	And Option III contd	
Year II Semester I	Year II Semester II	Second Summer School
1. Psycho-dynamic Counselling with Individuals	1. Cognitive-Behavioural Counselling with Individuals Part II	1. Vocational Counselling

2. Cognitive-Behavioural Counselling with Individuals Part I	2. Developing an Eclectic/ Integrative Approach to Counselling	2. Psycho-dynamic Counselling with Groups
3. Cognitive-Behavioural Group Counselling	3. Family Therapy	3. Conflict Resolution Workshop
4. Practicum 3	4. Practicum 4	

Year III Semester I

1. Research Project Tutorials

2. Practicum 5

Year III Semester 2

1. Submission of the Research Project

2. Practicum 6

Course (Core)

Course Code	Course Name	No. of	Course Weighting
OG61A	Person-Centred Counselling	3	60% Exam 40% Coursework
OG61B	Group Counselling: Personal Growth Groups	3	60% Exam 40% Coursework
OG61C	Professional Issues Part I: Ethical and Legal Issues	3	100% Coursework
OGH61D	Existential Counselling with Individuals	3	60% Exam 40% Course work
OG61E	Vocational Counselling	3	60% Exam 40% Coursework
OG61F	Professional Issues Part 2: Programme Development	3	100% Coursework
OG62C	Research Methods I: Quantitative Methods	3	100% Coursework
OG62G	Family Therapy	3	60% Exam 40% Coursework

OG62H	Research Methods II: Qualitative Methods	3	100% Coursework
OG63A	Research Project Tutorials and submission of the Research Project	3	100% Coursework
OG69A	Practicum 1	3	100% Coursework
OG69B	Practicum 2	3	100% Coursework
OG69C	Practicum 3	3	100% Coursework
OG69D	Practicum 4	3	100% Coursework
OG68E	Practicum 5	3	100% Coursework
OG69F	Practicum 6	3	100% Coursework

Courses (Electives)

Course Code	Course Name	No. of Credit	Course Weighting
OG62A	Psycho-dynamic Counselling with Individuals	3	60% Exam 40% Coursework
OG62B	Psycho-dynamic Counselling with Groups	3 3	60% Exam 40% Coursework
OG62D	Cognitive-Behavioural Counselling with Individuals Part I	3	60% Exam 40% Coursework
OG62E	Cognitive-Behavioural Group Counselling	3	60% Exam 40% Coursework
OG62F	Developing an Eclectic/ Integrative Approach to Counselling	3	60% Exam 40% Coursework
OG621	Cognitive-Behavioural Coun- selling with Individuals Part II	3	60% Exam 40% Coursework

Course Description:

Qualifying (Pre-Requisite) Courses

Course OG60A: An Introduction to Individual Counselling

This course is designed to introduce participants to the field of counselling by clarifying terminology, examining research findings on the effectiveness of counselling and counsellors, discussing the principles of counselling, providing an overview of the counselling process and relating these to the participants awareness of themselves, their motives and needs in choosing Counselling as a career. The course continues by providing participants with an overview of the principal schools of counselling as they emerged chronologically and then provides an in-depth look at counselling skills with particular reference to the counselling of individuals. The limitations of a skills approach to counselling are also explored. The course ends with an examination of some of the concerns of trainee counsellors as they consider the counselling process and the role of the supervisor.

Course OG60B: Introduction to Group Counselling

This course begins by discussing the definitions, rationale, goals and types of groups included in group counselling. Group leadership characteristics, strategies, skills, functions and styles are then explored, together with issues of concern to group leaders. The process and practice of group counselling and the nature, roles and behaviour of group members are then analyzed. The practical considerations involved in starting a group and the kinds of communication activities which students can use in groups are then described. Students are taught how to evaluate groups and the module ends by exploring the wider applications of group counselling.

Course OG60C: Abnormal Psychology

This course begins by identifying the benefits and pitfalls of psychiatric classifications and how they have been used and misused by counsellors and other health professionals. Instruments which are used in the assessment and diagnosis of the conditions covered in the course are discussed as each new topic is introduced. Learning disabilities are then explored and Block A ends with a focus on mental retardation. Block B begins by looking at stress and coping and the aetiology, signs, symptoms, treatment and management of anxiety disorders, mood disorders, schizophrenia, personality disorders and eating disorders. In Block C the focus shifts to substance abuse with an emphasis on a typology of abused substances, signs and symptoms of substance abuse, treatment, and management. The course ends with a general discussion of the psycho-social impact of these conditions, legal issues and the role of the counsellor. Throughout the course the actual experiences of people who have been challenged by these conditions are shared in order to retain the emphasis on people rather than on impersonal and potentially destructive psychiatric labels.

Course OG60D: Developmental Psychology

This course offers an introduction to physical, social, cognitive, moral and linguistic

development with an emphasis on theory and methodology. The biological and social bases of behaviour are explored and the pathology associated with failure to achieve psycho-social tasks at each stage is explored.

Course OG61A: Person-Centred Counselling

The course begins with an introduction to Carl Rogers and to Person-Centred Counselling. Rogers original writings are used to develop a thorough understanding of the philosophical base, the theoretical assumptions, beliefs and values which underlie Rogerian Counselling. Theoretical perspectives on the acquisition and maintenance of maladaptive behaviour and on the process of effecting therapeutic personality change are explored. Primary emphasis is placed on how to establish a therapeutic relationship and on developing the counsellors ability to demonstrate the conditions which facilitate personal growth. The focus then shifts to Person-Centred Counselling in action and to a detailed examination of the counselling process and the development of Person-Centred Counselling Skills. Case studies are used to develop insight into the practical application of Counselling theory. The course ends with a detailed critique of Person-Centred Counselling in which research findings on efficacy are explored and the wider applications of Person-centred Counselling in families, groups, educational and other institutions are discussed.

Course OG61B: Group Counselling: Personal Growth Groups

This course explores the application of Person-Centred Counselling Theory to Group Counselling with specific references to Personal Growth Groups. The course begins with a description of types of Personal Growth Groups such as T. groups, Encounter Groups, Marathon Groups and Systematic Human Relations Training. The goals and verbal and non-verbal techniques which are used in such groups are then presented. Leadership, group development, group dynamics, communication and counselling skills utilized in these groups are then discussed. The course continues with practical information on how to organize and evaluate these groups and ends with a discussion of the professional issues, ethics and criticisms which have to be considered in using such groups, and wider applications to special populations.

Course OG61C: Professional Issues Part I

This course is designed as a series of seminars in which various presenters will be initiating a discussion of professional issues which are of concern to counsellors. Students are required to attend 80% of the classes on Professional Issues which will be delivered by teleconferencing. The course begins by examining the ethical, legal and professional development issues which counsellors confront in their practice. Models for ethical reasoning and codes of ethics from various cultures are discussed in order to lay the foundation for the development of a West Indian code of ethics to guide Counsellors in individual and group counselling. The course then seeks to help counsellors in training to explore their own reactions to different, and, in some cases, socially proscribed groups by looking at the problems facing these groups. The course then ends by looking at the role of the counsellor as a change agent in West Indian societies.

Course OG61D: Existential Counselling

Existentialism is a philosophical approach to counselling rather than a method of counselling. It has been included in the programme because it encourages counsellors to grapple with life and death issues and concerns inherent in human existence which clients often bring to the counselling situation. Accordingly, this course begins with an introduction to Existential Counselling in which some of the main assumptions and themes of this approach are discussed. The therapeutic relationship is then highlighted followed by a detailed exploration of writings by existential psychotherapists and other existential authors on psychotherapy. Emphasis is given to the practical application of existential philosophy in counselling and to a discussion of the wider applications of this approach.

Course OG61E: Vocational Counselling

The course begins by reviewing historical information on the introduction of career counselling in West Indian schools. Participants are then introduced to new trends in the job market which have arisen as a result of new technological developments and economic changes sweeping the world. Theories and research findings pertaining to vocational/ career choice and development are then explored. Societal and individual factors influencing career choice and development are analysed. In the next unit, the world of work, the vocational counselling needs of special groups such as the handicapped are addressed. Block A ends with a unit on how to start and manage a business for those clients seeking to be self-employed. Block B focuses on the process of finding and succeeding on the job. Detailed treatment is given to job hunting skills, interpersonal relationships on the job, financial planning and coping with change. Educational considerations are then explored in Block D not only for the secondary school student selecting subjects in grade nine or third form, but also for the mature student seeking higher education and for people who need to re-enter the work force. The course ends with guidelines on developing a vocational guidance programme in schools.

Course OG61F: Professional Issues Part II

This course is designed to teach participants how to plan counselling programmes in different organizational settings. It then discusses the processes and skills involved in Conflict Resolution and Mediation. In Block B, the focus shifts to the development and organization of Counselling Programmes and the course ends with a discussion of issues involved in the management and delivery of Counselling programmes and services.

Course OG62A: Psycho-dynamic Counselling with Individuals

This course examines the psychoanalytic roots of psychodynamic counselling with special emphasis on the philosophical assumptions, the principal concepts and techniques which Sigmund Freud pioneered. Freud's theories of Psycho-sexual development, his theories on the development of human personality and the functioning of the mind will be analysed. The work of selected Neo-Freudians will also be discussed as will object relations theory. The emphasis throughout will be on the adaptation of long-term psychoanalysis to short-term psychodynamic counselling. The therapeutic process, the acquisition and maintenance of maladaptive behaviour, the principles and mechanisms of change and psychodynamic counselling skills and techniques

will all be thoroughly examined. The wider applicability of psychodynamic counselling to groups and family therapy will also be addressed.

Course OG62B: Psycho-dynamic Counselling with Groups

The course examines the application of psycho-dynamic theory to Group Counselling and attendant leadership, membership, communication, group dynamics and professional issues. Participants will explore in-depth the application of psychoanalytic techniques to group counselling. The course ends with a discussion of criticisms and research findings on the effectiveness of psycho-dynamic group counselling and its application to special groups, as well as the contribution which Psycho-dynamic Group Counselling can make to Eclectic and Integrative Approaches to Counselling.

Course OG62C: Research Methods Part I: Quantitative Research Methods

This course examines the steps and skills involved in conducting quantitative research. The course begins by exploring the nature of enquiry, and then describes how to select and construct hypotheses, how to review the literature, identify and label variables and construct operational definitions of these variables. Techniques for the manipulation and control of variables and problems of validity and invalidity are then explored. The course continues by teaching participants how to construct research designs, engage in proper procedures for observation and measurement, construct and use questionnaires and interview schedules and utilize sampling procedures and statistical tests. Parametric and non-parametric statistical tests are discussed. The course ends by teaching participants how to use data processing procedures and write a research report.

Course OG62D: Cognitive-Behavioural Counselling with Individuals

This course explores the interaction between thought, perception, emotions and the many factors which shape behaviour. It begins with an overview of the cognitive-behavioural school of counselling and then focuses in depth on cognitive-behavioural theory and the practical counselling skills and techniques which are used to help individual clients learn new patterns of behaviour. The course ends with a critique of this approach and the wider applications of this model to groups, families and educational institutions.

Course OG62E: Cognitive Behavioural Group Counselling

This course discusses the application of cognitive behavioural theory to group counselling. It begins with problem identification and goal setting and then continues by examining how to organize cognitive behavioural group counselling in terms of logistics, content, sequence, methods, leadership, membership, activities, group dynamics and process issues, monitoring, evaluation, termination and follow-up. The course ends with a critique of cognitive behavioural group counselling and a discussion of the wider applications of the theory with specific reference to Family therapy, and a detailed treatment of the place of Cognitive Behavioural Group Counselling Theory and Practice in Eclectic and Integrative Approaches to Counselling.

Course OG62F: Developing an Eclectic/ Integrative Approach to Counselling

This course seeks to help the student to consider the integrative themes underlying all of the major schools of counselling included in this M.Sc programme as a prelude to developing the students own personal theory of counselling. The course begins by considering the extent to which it is possible to reconcile conflicting philosophical assumptions, beliefs and values as expressed in the Psycho-dynamic, Humanistic and Cognitive-Behavioural schools of counselling. It then encourages the student to consider the implications of these schools of thought for his or her own self-development, self-exploration and self-knowledge. It then systematically explores the extent to which these counselling theories can be integrated in an effort to help counsellors to understand their clients concerns and to improve their professional practice. The course ends with each student thinking through and writing down his or her own personal theory of counselling to guide his or her own counselling practice.

Course OG62G: Family Therapy

This is an introductory course on theoretical and therapeutic components of major schools of therapy concerning marital and family therapy. Videotapes, training films and simulations will be used to explore therapeutic behaviours which differentiate schools of therapy. There will be an emphasis on perceptual, conceptual and clinical skills of family therapists. This course provides a foundation for future training in this area.

Course OG62H: Research Methods Part II: Qualitative Research Methods

This course focuses on the nature, principles, theories and methods of qualitative research. It begins by discussing the nature of knowledge and qualitative research as well as theories and principles guiding this kind of research. Different approaches and methods are examined including action research, case studies, ethnographic research, discourse analysis and comparative methodologies. Participants are taught how to use data gathering techniques and how to analyze and write research reports using qualitative research methods.

Course OG62 I: Cognitive-Behavioural Counselling with Individuals Part II

This course builds on Course OG62D by discussing how to select and implement strategies to use in Cognitive-Behavioural Counselling of individuals. Additional strategies are also described, including, symbolic modelling, using oneself as a model and participant modelling, emotive imagery and covert modelling, cognitive modelling and problem solving, cognitive restructuring, re-framing and stress inoculation, meditation, muscle relaxation, systematic desensitization and self-management strategies. Issues relating to termination and follow-up are explored, and the course ends by presenting a range of criticisms of the wider applications of this approach to counselling.

Course OG63A: Tutorials on the Research Project

These sessions have been designed as tutorials whose purpose is to assist students on a weekly basis via teleconferencing, as they work on their research projects. The presenters will act as resource persons and the tutorials will be developed and directed by students to meet their own

needs for supervision as they design and conduct research and write their projects.

The Research Proposal

At the end of the first week of the first semester in the third year, MSc students are required to submit a research proposal on a subject that is of interest to them and that is in keeping with Counselling and Psychotherapy.

Additional Information/Notes:

MSc Counselling students are also required to participate in a therapy group at each site, hence the need to have a minimum of six persons at each site to form a viable therapy group. Short In-Service Departmental Training Courses for Registered Nurses, Nurse-Midwives, Nurse Practitioners and Obstetricians and Gynaecologists are also offered for continuing education:

1. Family Planning and Sterilization Techniques for Nurses (February 15- 26, 2010).
2. Family Planning and Reproductive Health Administration (May 10-21, 2010)
3. Sexual and Reproductive Health for Medical Doctors and Senior Nurses (October 18-29, 2010).

For details of these courses please see the attached training schedule for 2009-2010.

Department Contact Information:

The Training Department
The Hugh Wynter Fertility Management Unit
The Faculty of Medical Sciences
UWI, Mona.

Programme Coordinator: Mrs. Lillith Williams

DEPARTMENT OF PATHOLOGY

Head: Dr. Gillian Wharfe, Bach. of Medicine & Surgery from UWI Mona Doctor of Medicine from UWI Mona

The Department of Pathology offers three graduate courses leading to the DM (Pathology) Degree of the University of the West Indies. These training programmes are designed to produce graduates for consultant posts in the various subspecialties of Pathology in the Commonwealth Caribbean. Candidates may choose to be trained in the following Graduate programmes:

Anatomical Pathology

Haematology

Chemical Pathology

DM (Pathology)

Specializations/Options:

Anatomical

Programme Objectives:

The objectives of the programme are to:

the attitudes that are essential for lifelong learning, scholarly enquiry and professional problem solving as pathologists in the context of an evolving body of scientific and professional knowledge by building on previous undergraduate and general medical training experience so that relevant knowledge of disease processes is acquired and maintained at a level consistent with the requirements of independent practice in this group of medical specialties

critical skills for the assessment of published literature and, where possible, to contribute to the advancement of such knowledge

interpretive skills based on the theory and practice of pathology as a clinical laboratory science at both macroscopic and microscopic levels such that clinically useful opinions can be produced from surgical, biopsy and cytology specimens and from the findings of post-mortem examinations

sufficient technical knowledge of the processing, sectioning and staining of histological sections (including special techniques such as immuno- histochemistry) and of cytological preparations to be able to function as a consultant Pathologist equipped for independent practice in hospital-based and stand-alone clinical laboratories and to interact appropriately with medical technologists colleagues over those aspects of the technical work for which they are responsible.

Familiarity with health and safety regulations relating to the practice of histopathology and its subspecialties such that the working environment is safe both for themselves and for their colleagues

understanding of information technology sufficient to be able to use computers for producing pathology reports and laboratory statistics, to search databases and to access e-mail and internet services

management and communication skills in order to interact appropriately with medical, scientific, technical and clerical colleagues in the workplace and eventually to function as a team leader, if so requested

responsibility for their standard of professional practice with an awareness of their own limitations, the benefits of team working and of the requirements of the Medical Council of Jamaica.

Entry Requirements:
(See general regulations Doctor of Medicine)

Applicants should be Medical Graduates of a University or Medical School recognized by the University of the West Indies and fully registered in the territory or territories in which training will take place after completing their Internship and Senior House Officer Rotations. Candidates will be required to submit a written application and may be required to attend an interview to be eligible for selection to the programme.

Duration of programme:

Four years full-time

Programme Structure:

The programme will be a minimum of four years. The course of study will normally take place at the University Hospital of the West Indies or at institutions in the contributing territories recognized by the University for this purpose; but up to one years elective period may be spent at an approved institution in or out of the Caribbean. Throughout the programme, candidates must hold recognised posts in accredited hospitals or be on the elective period. The Specialty Board in Pathology is in overall charge of the programme and is the sole and final authority on all matters concerning the programme.

Academic

Basic Histology Use of the Microscope Presentation methods, research methodology	3-month rotation through Chemical Pathology laboratory	Sub-specialty areas including but not limited to: cardiovascular, gastrointestinal, neuropathology paediatric, and renal pathology	Sub-specialty area including but not limited to: cardiovas- cular, gastroin - testinal, neuro- pathology, paediatric and renal pathology
Basic Pathology	6-month Rotation Through Haematology/ Oncology	laboratory quality assurance and management	laboratory quality assurance and management
Conferences and Seminars	Conferences and Seminars	Conferences and Seminars	Conferences and Seminars

Service Based

Autopsy	Autopsy	Autopsy	Autopsy
Introductory Surgical Pathology Through scribing	Basic laboratory work flow and management Surgical pathology and cytology Sub-specialty areas including but not limited to: cardiovascular, gastrointestinal, neuropathology, paediatric, adrenal pathology	Surgical pathology and cytology NB: Increasing levels of responsibility and competence	Surgical pathology and cytology NB: Increasing levels of responsibility and competence
	Research Paper	Research paper Optional Approved elective	Research paper

DM Part IDM Part II

Course

Course Code Course Name

RETH 9004DM Pathology

Course Description:

The DM Anatomical Pathology programme is a four year graduate courses which aims to provide the graduate with the knowledge and skills to function as a consultant Anatomical Pathologist equipped for independent practice in hospital-based and stand-alone clinical laboratories.

Additional Information/Notes:

During the programme, students will be expected to teach undergraduate medical students and

other allied professionals and to present the research work of the department at learned conferences locally and internationally. With advancement through the programme, senior students will be involved in the guidance of residents at lower stages of training.

Department Contact Information:

Department of Pathology
University of the West Indies Mona,
Kingston 7
Jamaica W.I.
Ph: (876) 927-1410 / 977-3942 Fax: (876) 977-1811

Programme Coordinator: Dr Nadia P Williams

DM (Pathology)

Specializations/Options:

Chemical Pathology

Programme Objectives:

The objectives of the programme are to:

Provide a solid foundation in the theory and practice of pathology as a clinical laboratory science

Provide training in the diagnosis of disease by laboratory methods

Provide the graduate with the knowledge and skills to function as a consultant Pathologist equipped for independent practice in hospital-based and stand-alone clinical laboratories

Encourage the development of attitudes that are essential for life-long learning, scholarly enquiry and professional problem solving as pathologists in the context of an evolving body of scientific and professional knowledge

Entry Requirements:

(See general regulations Doctor of Medicine)

Applicants should be Medical Graduates of a University or Medical School recognized by the University of the West Indies and fully registered in the territory or territories in which training will take place after completing their Internship and Senior House Officer Rotations.

Candidates will be required to submit a written application and may be required to attend an interview to be eligible for selection to the programme.

Duration of programme:

Four years full-time

Course Code
RETH 9004

Course Name
DM Chemical Pathology

Course Description:

The DM Chemical Pathology programmes is a four year graduate course which aim to provide the graduate with the knowledge and skills to function as a consultant Chemical Pathologist and Laboratory Manager, equipped for independent practice in hospital-based and stand-alone clinical laboratories.

Additional Information/Notes:

During the programme, students will be expected to teach undergraduate medical students and other allied professionals and to present the research work of the department at learned conferences locally and internationally.

Department Contact Information:

Department of Pathology University of the West Indies Mona, Kingston 7 Jamaica W.I. Ph: (876) 927-1410 / 977-3942 Fax: (876) 977-1811

Programme Coordinator: Dr Eric Choo Kang

TROPICAL MEDICINE RESEARCH INSTITUTE

Director: Professor Marvin Reid (Acting)

The Tropical Medicine Research Institute offers the following Graduate programmes:

MSc Nutrition
MPhil / PhD Nutrition
MSc Epidemiology
PhD Epidemiology

Masters of Science in Nutrition

Programme Coordinator: Kwesi Marshall (PhD)

Programme Rationale

Nutrition can be defined as the science of foods and the effects of nutrients and other substances contained within foods on health. Nutritionists seek to acquire a clear understanding of the scientific bases of nutrition and to apply this knowledge to health-related problems at the individual, community, and national levels. The principal objective of the Masters programme in Nutrition is to provide interested parties throughout the Caribbean region and elsewhere with an up-to-date, in-depth, and extensive exploration of the discipline of nutrition and its crucial inter-relationships with associated disciplines in the biomedical sciences. Upon successful completion of the programme, graduates will be equipped with the requisite range of knowledge and skills applicable for addressing the major regional and international nutrition-related challenges of the twenty-first century.

Objectives

To provide graduates with a repertoire of knowledge and skills that will enable them to:

- 1) assess food and nutritional needs at the individual, community and national levels
- 2) critically evaluate current findings from biomedical research in order to facilitate the dissemination of accurate and topical information to professionals in the education and health sectors
- 3) provide practical nutritional advice to the general public in both clinical and public health settings
- 4) utilize evidence-based methodologies to guide public policy and program implementation so as to address specific national and regional needs

Entry requirements:

Applicants must be graduates of approved universities with a minimum of a lower second class honours or equivalent degree in Natural Sciences, Social Sciences, Agriculture or other subject acceptable to The Faculty of Medical Sciences.

Programme Duration: Fifteen months full-time.

Programme Structure

The programme is comprised of four courses followed by a six-month research project (NUTR6800). The first two courses, Concepts and Principles of the Nutritional Sciences (NUTR6001) and Essentials of the Scientific Method (NUTR6101) are taught in the first semester while Public Health Nutrition (NUTR6002) and Clinical Nutrition (NUTR6102) are taught in the second semester.

Exemption from prescribed courses may be granted on the basis of the candidate's pre-registration record. **There can be no exemption from the project requirement.**

Programme Outline

Course Code	Course Name	Number of Credits
NUTR6001	Concepts and Principles of the Nutritional Sciences	6
NUTR6101	Essentials of the Scientific Method	6
NUTR6002	Public Health Nutrition	6
NUTR6102	Clinical Nutrition	6
NUTR6800	Research Paper	12

Assessment

Assessment is by written examinations and course work.

Examinations: First semester – two written 3 hour papers.

Second semester – two written 3 hour papers.

Course work includes written reports of practical exercises and other assignments, and written and oral presentations of a term paper. This will contribute up to a maximum of 20% of the marks.

COURSE CONTENT

CONCEPTS AND PRINCIPLES OF THE NUTRITIONAL SCIENCES (NUTR6001)

1. Foods

Food groups, food composition tables, toxins, food microbiology, Processing and nutrient losses

2. Nutrition in the life cycle

Diets of vulnerable groups - pregnant and lactating women, infants and young children, school children, adolescents, elderly

Growth and development, physiology of pregnancy and lactation and ageing

3. Nutritional biochemistry and physiology

Chemistry and metabolism of carbohydrates, proteins, lipids, vitamins and trace elements

Integration, coordination and regulation of macronutrient metabolism

Energy expenditure and energy balance

Protein quality evaluation

Gastrointestinal physiology and digestion

4. Assessment of diet and nutritional status

Dietary assessment - for individuals and groups

Anthropometric assessment and body composition

Clinical and biochemical assessment

5. Dietary Reference Intakes (DRI)

Definitions, estimation of requirements and derivations of recommended intakes, uses and limitations of DRIs

6. Course work: Nitrogen balance practical, anthropometry practical

ESSENTIALS OF THE SCIENTIFIC METHOD (NUTR6101)

1. Epidemiology

Introduction to epidemiology, historical highlights of epidemiology, introduction to demography, measures of disease frequency, sources of health statistics in country, concepts of cause and causal theory, measures of effect (association), principles of measurement, study designs in epidemiology, statistical methods in epidemiology. Ethics.

2. Research Methods

Research principles, sampling methods, principles of measurement, study design. Organization of surveys, questionnaire design, data collection methods, interviewing techniques. Reliability and validity.

3. Statistics and Data Analysis

Types of data, frequency distributions, data summary, probability, normal, binomial and poisson distributions, sampling distributions, confidence intervals, hypothesis testing, simple linear regression, correlation, analysis of variance, transformation, distribution free tests, sample size determination. Data management. Data analysis using STATA.

4. Interpretation and presentation of data

Literature reviews - critical review of scientific journal articles

5. Techniques for the development of a research proposal

6. Coursework: Term Paper, Statistics Project

PUBLIC HEALTH NUTRITION (NUTR6002)

1. Food and nutrition policy and planning and interventions

World nutritional problems, food security, problem identification, programme planning, implementation, monitoring and evaluation.

Nutrition surveillance, nutrition education, nutrition supplementation and fortification, food based approaches.

Goals and guidelines for meal planning, surveys of food consumption. Food based dietary guidelines.

Food safety, laws and regulation, food labeling.

2. Achieving lifestyle changes - health promotion and disease prevention,

communication strategies, counseling -process and techniques,

education, motivation: theory and skills, behaviour modification.

3. Nutrition Epidemiology

Diet and disease relationships, types of studies, methodology and interpretation.

4. Nutrition in Primary Health Care

Field trips organized by the Nutrition Division of the Ministry of Health

5. Sports Nutrition

Physiology and biochemistry of exercise, nutritional requirements, nutritional considerations for an event

6. Coursework: Food cost practical, Food and Nutrition Policy and Planning assignments

CLINICAL NUTRITION (NUTR6102)

1. Undernutrition

Malnutrition - classification and clinical features, treatment, stunting and wasting, kwashiorkor - aetiology, associated factors; infection, immunity, diarrhoea, parasites, mental development, social background, long term effects and implications. Anemia. Anorexia and starvation.

2. Chronic non-communicable diseases

Aetiology, risk factors, management, and epidemiology of obesity, cardiovascular diseases, diabetes, hypertension. Diet and cancer. HIV/AIDS and nutrition.

3. Metabolic States

Physiology of starvation; metabolic responses to injury and stress.

4. Nutritional screening and assessment

The role and methods of nutritional screening and nutritional assessment in the clinical setting.

5. Therapy and management

Acute and chronic illnesses, rehabilitation, institutional and community care, palliation, artificial feeding. Application of appropriate management skills for investigations, nutritional advice and treatment, referrals, institutional care, community care.

General principles of the nutritional support of the metabolically stressed subject.

6. Drug-nutrient interactions.

7. Nutrition in support of health protection and health promotion (diet, physical activity, body composition)

8. Coursework: Case studies, various assignments

RESEARCH PROJECT (NUTR6800)

Investigation and written report of an approved topic.

The research proposal and introduction should be completed during the second semester and presented immediately following the end of the semester two examinations. The following phases should be carried out within 6 months — project preparation, data collection, data entry, data analysis and interpretation, and preparation of a written report, which is expected to be submitted by the end of November.

The written report should be in accordance with the University's regulations for the preparation of research papers.

OTHER ACTIVITIES

Introduction to word processing and presentations

Introduction to scientific writing

Ward rounds on the ward for malnourished children at the Tropical Metabolism Research Unit

Discussion of research being carried out by staff

Research seminars given by staff, graduate students and invited guests weekly during semesters one and two

Department Contact Information:

Tropical Medicine Research Institute

The University of the West Indies,

Mona

Kingston 7,

Jamaica, W.I.

Email: [tmri @uwimona.edu.jm](mailto:tmri@uwimona.edu.jm)

Tel: (876) 927-1884 / 977-6251

Fax: (876) 977-0632

MPhil / PhD Nutrition

Programme Objectives: The aim of these courses is to train professional nutritionists capable of assuming leadership roles in academia, government, industry and private sector enterprises

nationally and internationally. They will be expected to advance knowledge in nutrition through research and the application of evidence based methodology to guide policy and decision making.

Entry Requirements:

Candidates seeking to enter the MPhil programme should possess a first degree with upper second or first class honours. They will be required to pursue the first year of the MSc Nutrition programme and achieve an average of B+ or higher to be eligible for transfer to the MPhil programme.

Candidates applying for the PhD programme should hold an MSc or MPhil degree in Nutrition. Other health related masters degrees may be considered but these persons would be required to complete courses in nutrition as determined by the department. All candidates will be required to register for the MPhil degree in the first instance (unless they already hold such a degree) and may have their registration upgraded to the PhD after a minimum of one year if conditions outlined for transfers from MPhil to PhD by the Office of Graduate Studies and Research are met.

Some examples of areas of research currently being undertaken in the Institute:

Jamaica Healthy Lifestyle Survey II

Jamaica Youth Risk and Resiliency Behaviour Survey

Impact of early life experience on cardio-respiratory risk and bone mineral density in adolescence in Jamaica

Human resources for Health

The effects of early childhood stimulation on economic, cognitive and social outcomes in a cohort of stunted Jamaican children: The 22 years follow-up study

Caregiver training and early stimulation for young children in child care facilities

Nutrition in sickle cell disease

Gluthathione homeostasis in sickle cell disease

Amino acid requirements in sickle cell disease

Relationship between body composition and utilization of protein and fats as fuels

Protein and amino acid metabolism in severe childhood malnutrition

Relationship between birth weight and urea kinetics in children

Energy requirements, body composition and cardiovascular risk in adults from urban and rural Jamaica

Seminars

One departmental seminar per academic year.

Duration of programme

The MPhil degree normally takes a minimum of two years of intensive research on a full-time basis. A PhD degree usually takes a minimum of three years full-time. Part-time studies may also be pursued.

Programme Structure:

The MPhil Degree

This programme consists largely of work on a research topic which is examined by thesis. In addition candidates are required to complete a mandatory 6 credit hours of courses but may also be required to do additional courses based on their background knowledge. Candidates for the MPhil degree may be required to take an oral examination on the general field of study and on the thesis.

The PhD degree

The PhD is fundamentally a research degree, and is examined by thesis and an oral examination. Candidates are also required to complete a mandatory 9 credit hours of courses but may also be required to do additional courses based on their background knowledge. The PhD thesis should make a distinct contribution to the advancement of the field of nutrition and show evidence of originality and independent critical thought. It should meet the professional standards of the discipline, be satisfactory as regards literary presentation, and should be suitable for publication.

Courses (Core)

Course	Course Name	No. of Credits
NUTR6001	Concepts and Principles of Nutrition Sciences	6
NUTR6002	Essentials of the Scientific Method	6

Electives

(Candidates may choose from among these or other available courses based on their area of interest)

Course Code	Course Name	No. of Credits
NUTR6002	Public Health Nutrition	6
NUTR6102	Clinical Nutrition	6
EPID6104	Critical evaluation of the scientific literature and writing scientific manuscripts	3
EPID6102	Introduction to Statistics and computing	6
EPID6101	Fundamentals of epidemiology	6
EPID6202	Ethics and Research methods	6

Course Description:

For Nutrition courses see the MSc Nutrition programme and for Epidemiology courses see the MSc

Epidemiology programme.

Department Contact Information:

Tropical Medicine Research Institute
The University of the West Indies, Mona, Kingston 7,
Jamaica
Tel: 876-927-1884, 876-977-6251 Fax: 876-977-0632
Email: tmri@uwimona.edu.jm

MSc Epidemiology

Programme Objectives:

Graduates of the MSc program are expected to:

Have knowledge of epidemiological concepts, principles, methods, sources of data and relevant ethical issues; be able to work with and interpret existing data.

Describe trends and patterns of disease incidence, prevalence, burden of major diseases (both new and emerging) and factors affecting health status; indicate major etiologic and prognostic factors for the same.

Read, understand and evaluate the scientific literature relevant to epidemiology.

Understand the strengths and weaknesses of major methodological and analytical techniques

used in epidemiology.

Develop testable hypotheses, set out relevant research questions, design and develop a feasible research proposal.

Apply epidemiological concepts, principles, methods and analytical techniques in research studies.

Exhibit practical skills, including subject selection, data collection, study logistics; construct a data set; analyse a data set using existing statistical software.

Prepare a paper for presentation or publication.

Appreciate the policy implications of epidemiologic research.

Contribute to health service delivery policy development

Entry Requirements:

Candidates should be graduates in medicine, dentistry, veterinary medicine, other health sciences, or social sciences. The undergraduate record should be distinguished and an aptitude for the study of a quantitative discipline should be demonstrated. Candidates are expected to meet any and all other all matriculation requirements of the University of the West Indies. Assessment and selection will be via review of curriculum vitae and interview.

Duration of programme:

Full time for 12 months starting in September

Programme Structure: Award of the MSc Epidemiology requires a minimum of 40 credit hours (inclusive of core courses and options) and a satisfactory project report.

Semester 1

Epidemiology 1 Introduction to Statistics and Computing Research Methods Critical Evaluation of the Medical Literature and Scientific Manuscripts Research Ethics Epidemiology of Infectious Diseases and HIV

Semester 2

Epidemiology 2 Statistical Methods in Epidemiology Data Management for Epidemiology Studies Epidemiology of Chronic Non-Communicable Diseases Maternal and Child Health Health Services Research Genetic & Molecular Epidemiology Nutritional Epidemiology

Semesters 1 & 2

Research Report

Course (Core)

Course Code	Course Name	No. of Credits	Course Weighting
EPID6101	Epidemiology	6	20% Coursework 80% Exam
EPID6102	Introduction to Statistics	6	30% Coursework and Computing 70% Exam
EPID6103	Research Methods	4	20% Coursework 80% Exam
EPID6104	Critical Evaluation of the Medical Literature and Writing Scientific Manuscripts	3	100% Coursework
EPID6105	Research Ethics	2	100% Exam
EPID6106	Epidemiology of Infectious Diseases and HIV	3	20% Coursework 80% Exam
EPID6100	Research Report	6	100% Coursework
EPID6201	Epidemiology 2	4	20% Coursework 80% Exam
EPID6202	Statistical Methods in Epidemiology	4	30% Coursework 70% Exam
EPID6203	Data Management for Epidemiology Studies	2	100% Coursework
EPID6204	Epidemiology of Chronic Non-Communicable Diseases	3	100% Coursework
EPID6205	Maternal and Child Health Epidemiology	2	30% Coursework 70% Exam
EPID6206	Health Service Research	2	100% Exam

Courses (Electives)

Course Code	Course Name	No. of Credits	Course Weighting
EPID6207	Genetic & Molecular Epidemiology	2	100% Exam
EPID6208	Nutritional Epidemiology	2	100% Exam

EP6101: Epidemiology 1

The aim of this course is to provide an introduction to the basic concepts and methods of epidemiology. Content areas include: History of epidemiology, Scope of epidemiology (including introduction to outbreak investigation), Measures of disease frequency (case definition) Measures of Effect (Risk) natural history of disease, indices of population health,

ICD10, study designs, interpretation of epidemiological studies, cause and association, measurement and measurement error, Preventive strategies & measures of public health impact, General principles of comparative trial, Randomization: rationale, organization, ethics and statistical methods, Size of trials: power calculations, need for large trials, problems of small trials, alternative trial designs, principles of meta-analysis, Data monitoring and clinical trials reporting, Practical on drafting a trial protocol.

EP6102: Introduction to Statistics and Computing

The aim of this course is to introduce the basic statistical methods used in medical and public health research and to help students develop the skills needed to apply these methods with a statistical computer package. Content areas include definition and classification of variables, basic methods of presenting data, measures of position and variability, fundamentals of probability, including an introduction to the basic distributions normal, binomial, Poisson), classical inference, comprising: population, including the ideas of model and parameter: types of population (notional, actual etc.), response variable (measured, nominal, ordinal etc.), sample, including ideas of randomness, statistic, emphasizing the distinction from population values, sampling distribution, approximate and exact, relevance of sample size, estimation, properties of estimators, hypothesis tests, type I and II errors, sensitivity and specificity, confidence intervals, comparison: the central idea of the comparison of groups, role of randomization, tests of significance, blocking: pairing and matching, association: contingency tables and correlation, ANOVA: basic idea, reliability, repeatability, agreement, Assumptions: their importance and relevance, examination, transformations, sampling variation, estimation and hypothesis testing, regression analysis, analysis of trends.

EPID6103 Research Methods

This module aims to introduce the concepts of study design, data management and data analysis which are suitable for epidemiological research which will allow the student to design studies and write competitive proposals on contemporary issues in epidemiology and public health; provide the practical skills necessary to plan and carry out research projects as well as explore the principles and concepts associated with the design of sample surveys which are representative of populations and the analysis of data from such surveys. Content areas include preparing a research proposal, systematic review methodology, study design issues in epidemiological studies, sampling, budgeting, developing a field protocol, questionnaire design, managing a research team, data presentation and report writing

EPID6104 Critical Evaluation of the Medical Literature and Writing Scientific Manuscripts

This module aims to describe and illustrate the methods available for identifying and reviewing quantitative and qualitative literature. This will provide students with a perspective on the development and uses of epidemiology through discussion of key epidemiological papers. The student should develop the skills to find, interpret and criticize information in the epidemiological literature and the competence to write scientific manuscripts in accordance with the requirements of journals and other publications. Content areas include planning the review: the role of the literature review and specification of the task, identification of relevant literature

both published and unpublished: developing a search strategy and using bibliographic databases, appraising the literature: methods for assessing the quality of quantitative and qualitative research, synthesizing the evidence: integration of the evidence using both quantitative and qualitative methods; principles of meta-analysis, formulating recommendations and writing reviews.

EPID6105 Research Ethics

The aim of this module is for students to develop an awareness and knowledge of the ethical principles which guide researchers, especially those studying human subjects. Content areas include historical events that have influenced current ethical guidelines, the fundamental ethical principles that guide the ethical conduct of research involving human participants, International guidelines in the protection of human participants, the responsibilities of organizations or individuals in protecting human participants, maintaining confidentiality throughout the research process, the informed consent process and vulnerable populations, the role of regulatory bodies and institutions in maintaining ethical standards, Research Ethics in the Caribbean.

EPID6106 Epidemiology of Infectious Diseases and HIV/AIDS

The aim of this module is to provide a multidisciplinary framework for understanding the principles of interventions against infectious diseases. It provides perspectives on the epidemiology of communicable diseases: basic concepts and methods; epidemiological aspects of vaccination; surveillance and outbreak investigation; and detailed discussion of the epidemiology of important representative infectious diseases.

It also provides students with an understanding of the control of communicable diseases in countries with a developed public health infrastructure. Special emphasis will be placed on HIV/AIDS as one of the threats to health in the Caribbean. Content areas include Principles of infectious disease (ID) epidemiology, principles of surveillance, epidemiological methods I: Lot Quality Assurance Sampling (LQAS), Infectious Disease Outbreak investigation and selection of appropriate comparison groups and logistical issues; mathematical models for ID; New vaccines: The Jamaica rotavirus experience; Emerging infectious diseases and bioterrorism; HIV/AIDS - epidemiology, natural history, evaluation and treatment and prevention including vaccine trials.

EPID6201 Epidemiology 2

This module aims to provide an advanced understanding of, and confidence to choose and execute, study design, analysis and interpretation of epidemiological studies and to understand epidemiological methods applied to public health. Content areas include definition of cases in epidemiological studies, rates (including Standardization) and measures of frequency and effect (risk), measures of public health impact (population attributable risk and number-needed-to-treat, study design, planning and execution, developing instruments, achieving good measurement technique and reducing random error, bias, confounding, data management and analysis, measures of reliability (e.g. Kappa statistics), validity (sensitivity, specificity, predictive validity, likelihood ratio, receiver operating characteristic (ROC) curves, screening and surveillance,

including comparison and analysis of routine data, causality philosophical (inductive and deductive reasoning) and mathematical basis (probability concepts) and decision making.

EPID6202 Statistical Methods in Epidemiology

This module aims to equip students with the skills needed to analyze and interpret data from cohort, case-control and cross-sectional studies by cross-tabulation, stratification and regression and introduce them to the analysis of large, population-based datasets. Content areas include analysis of cohort studies using classical methods.

Stratification, confounding and interaction, design issues in case-control studies, analysis of case control studies using classical methods, matching in case control studies, likelihood theory, logistic regression for the analysis of case-control, cross-sectional and fixed cohort studies, regression methods for case-control studies (Unconditional and conditional logistic regression), advanced design issues in case-control studies, regression methods for cohort studies and survival analysis. Assessing goodness of fit. Multiplicative and additive models. Attributable fractions. Meta-analysis and systematic reviews, survey analysis - weighted data, analysis of clustered data, repeated measures, design effects, dealing with missing data.

EPID6203 Data Management for Epidemiological Studies

The module aims to give students the practical skills to create, check and manage a database suitable for epidemiological studies.

Content areas include Data entry/data entry verification, data quality and data checking, data management and manipulation, data analysis and data summary and presentation.

EPID6204 Epidemiology of Chronic Non-Communicable Diseases

The course aims to make the student aware of the burden of chronic non-communicable diseases (CNCDs) on the public health agenda of countries, at various stages of development and to examine and understand the methodological issues in different types of study design aimed at identifying the determinants of major CNCDs and to be able to plan, implement and evaluate preventive strategies.

Content areas include the Epidemiology of lifestyle related issues such as obesity, cardiovascular diseases (hypertension, stroke, coronary artery disease), diabetes, cancer and depression, with particular reference to developing countries, with reference to the main studies in these areas, application of different types of study design to the epidemiology of major CNCDs, including ecological, cohort and case-control studies and intervention trials, issues of screening for chronic disease: methodological issues, implementation and evaluation and the role of genetics and the environment on chronic disease aetiology.

EPID6205 Maternal and Child Health Epidemiology

The aim of this module is to explore the nature and determinants of ill-health in pregnant women and children (0-10 years), and to demonstrate the contribution of methods drawn from epidemiology, demography and the social sciences to problem identification and to the design

and evaluation of strategies to improve the health of pregnant women and children with particular reference to developing countries.

Content areas include Issues related to reproductive biology; bearing healthy children (maternal health, infertility and adverse foetal and child outcomes), avoiding childbearing (contraception and induced abortion), maintaining a healthy reproductive system (STDs, HIV, reproductive cancers), the social context in which reproductive health concerns arise and will cover concepts of reproductive rights, gender perspectives, reproductive health services, programmes and policies among others, developing the skill to identify and process new information, the public health problems facing pregnant women and babies and the complex of factors which contribute to these problems, indicators of levels of maternal and perinatal health, methods of measurement and sources of information. e.g. millennium development goals, methods and techniques from different disciplines which can contribute to the study of the health problems of pregnant women and babies, current strategies for the improvement of maternal and perinatal health, examining links between the health of women and children.

EPID 6206 Health Services Research

This module aims to provide students with a range of ways of thinking about health services and health systems by assessing its component parts. Drawing on public health, epidemiology, economics and sociology, the Teaching Unit will help students understand how services function, the reasons services have developed in the way they have, the basis of some universal, persistent problems, and possible solutions to such difficulties. Content areas include Inputs of health services: Introduction to course and to health services - what is meant by health care, lay care and formal care, different levels of health services. Diseases and medical knowledge. Sources of finance and health care expenditure; Processes of health services: Need, demand and use. Health professionals. Professional-patient interaction. Financial management, Assessing health services and systems: Methods for assessing health services at micro and meso levels, and whole systems and The Response to challenges to health care: in industrialized and developing countries.

EP6207 Genetic and Molecular Epidemiology

The aim of this module is to give students a basic understanding of the techniques used, and an appreciation of the importance of molecular epidemiology and introduce to them the ways in which genetic analysis may be used with epidemiological studies to provide a powerful means of exploring the aetiology of disease.

Content areas include an Introduction to Genetics: genes and chromosomes, alleles and polymorphisms, Mendelian Inheritance, linkage, penetrance, quantitative genetics, computational analysis, Designing studies to determine the extent of genetic contribution to the aetiology of a disease, and its mode of transmission: family studies, twin studies, segregation analysis, Designing studies to determine the location of the gene, and the allele responsible for a disease: linkage studies, affected sib studies, association studies, family-based association studies, Appreciation of the importance of genetics to public health, the role of ethical issues in the study of genetic determinants of disease and an appreciation of the role of race/ethnicity and genetics in disease causation.

EP6208 Nutritional Epidemiology

The aim of this course is to introduce students to key issues in the design and interpretation of nutritional epidemiological studies, and to evaluate current understanding of the relationship between nutrition and disease.

Content areas include an Introduction to the changing patterns of diet, nutrition and health, the relationship between dietary intake and disease, epidemiological methods used in the investigation of the association between diet and disease, methods for assessing dietary intake at a population and individual level, dietary methodology food frequency questionnaire, 24 hour recall, food diaries and their validation, retrospective and prospective methods of determining dietary intake, the meaning and analysis of total dietary intake, body composition and anthropometry, biomedical assessment of nutritional status, correction of measurement error in data analysis, regression analysis of nutritional data, the relationship between diet and some chronic diseases such as cardiovascular diseases, cancer, obesity, diabetes and osteoporosis.

EPID6100 Research Report

Investigation and written report of an approved topic.

The research proposal and introduction should be completed during the first semester and presented before the end of semester examinations. The following phases should be carried out during the next semester: - project preparation, data collection, data entry and analysis and preparation of a written report which should be submitted at the end of July. The written report should not exceed 5,000 words and should conform to the University's regulations for preparation of theses.

Department Contact Information:

The Epidemiology Research Unit, TMR
The University of the West Indies, Mona
Jamaica, West Indies
Email: tmri.eru@uwimona.edu.jm
Tel: (876) 927-2471 / 977-6151
Fax: (876) 927-2984

Programme Coordinator: Dr. Marshall Tulloch-Reid

MPhil / PhD Epidemiology

Programme Objectives:

The aim of the MPhil/PhD programme is to produce epidemiologists who are capable of assuming leadership roles in academia, government, industry and private sector enterprises nationally and internationally.

They will be expected to have a sound knowledge of epidemiological concepts, principles, methods, sources of data and relevant ethical issues; be able to work with and interpret existing data, read and understand and evaluate the scientific literature relevant to epidemiology and their areas of expertise, develop testable hypotheses and set out relevant research questions and design and develop a feasible research proposal, exhibit practical skills - including subject selection, data collection, study logistics, construction a data set, data analysis skills and scientific writing

skills and contribute to health service delivery policy development.

Entry Requirements:

The MPhil/PhD in Epidemiology is considered a research degree with most of the period within training focused on the development and execution of the planned project. All University Regulations for matriculation must be fulfilled.

Candidates with an MSc in Epidemiology or an equivalent degree in Epidemiology are eligible for the MPhil/PhD programme and can apply to Graduate Studies for admission to the programme.

Candidates who do not have a graduate degree are encouraged to pursue the MSc in Epidemiology prior to applying to the MPhil/PhD programme.

Candidates with a Graduate Degree who are interested in pursuing the MPhil/PhD in Epidemiology will also be considered for admission. Some of these candidates, depending on their previous training and experience, may be required to complete taught courses that are offered with the MSc in Epidemiology as determined by their Supervisor. Consideration may be given to the possible equivalence of other qualifying courses offered by the UWI or other institutions. These UWI courses include:

- a. Masters in Public Health (MPH)
- b. MSc Nutrition
- c. MPhil (Biomedical or Social Sciences)
- d. MSc Family Medicine

Some examples of areas of research currently being undertaken in the Institute:

The ERU aims to make a significant contribution to the improvement of health in the Caribbean and the world by developing collaborative programmes of excellence in research under the theme Epidemiology for Population Health

Jamaica Healthy Lifestyle Survey II

Jamaica Youth Risk and Resiliency Behaviour Survey

Impact of early life experience on cardio-respiratory risk and bone mineral density in adolescence in Jamaica

Health Human Resources Information Datasets in the Americas: Jamaican Database of Human

Resources in Health

Overweight/Obesity in Children 6-10 Years Old in the North East Health Region, Jamaica: Prevalence,

Risk Factors and Dietary & Physical Intervention

The economic impact of obesity

The Impact of Diabetes on Morbidity and All-Cause and Cardiovascular Mortality in the Caribbean and an

Evaluation of Health Provider Practice in Respect of CVD Risk Reduction in Diabetic Patients

The Classification of Youth Onset Diabetes in Jamaica

The burden and cost of diabetic foot complications among patients attending a specialist diabetic clinic in Jamaica

The effects of early childhood stimulation on economic, cognitive and social outcomes in a cohort of stunted Jamaican children: The 22 years follow-up study

Future studies on the role of social risk factors on chronic diseases, qualitative interviews of persons with chronic diseases, health and nutrition in the elderly and intervention programmes to prevent type 2 diabetes and its complications are planned.

Seminars:

One departmental seminar per academic year.

Duration of programme:

The MPhil degree normally takes a minimum of two years of intensive research on a full-time basis. A PhD degree usually takes a minimum of three years full-time. Part-time studies may also be pursued.

Programme Structure:

The MPhil Degree

This programme consists largely of work on a research topic which is examined by thesis. In addition candidates are also required to complete a mandatory 6 credit hours of courses but may also be required to do additional courses based on their background knowledge. Candidates for the MPhil degree may be required to take an oral examination on the general field of study and on the thesis.

The PhD degree

The PhD is fundamentally a research degree, and is examined by thesis and an oral examination. Candidates are also required to complete a mandatory 9 credit hours of courses but may also be required to do additional courses based on their background knowledge. The PhD thesis should make a distinct contribution to the advancement of the field of epidemiology and show evidence of originality and independent critical thought. It should meet the professional standards of the discipline, be satisfactory as regards literary presentation, and should be suitable

for publication

Course (Core) Course Code	Course Name	No. of Credits
EPID6101	Fundamentals of Epidemiology	6
EPID6102	Introduction to Statistics and Computing	6
EPID6103	Ethics and Research Methods	6
EPID6104	Critical Evaluation of the Scientific Literature and writing Scientific manuscripts	3
EPID6202	Statistical Methods in Epidemiology	4

Electives

(Candidates may choose from among available courses based on their area of interest and their previous training and experience)

Course Description:

For Epidemiology courses please see the MSc Epidemiology programme

Department Contact Information:

Epidemiology Research Unit
Tropical Medicine Research Institute
The University of the West Indies,
Mona, Kingston 7,
Jamaica
Tel: 876-927-2471, 876-977-6151 Fax: 876-27-2984
Email: tmri@uwimona.edu.jm

Programme Coordinator: Professor Rainford Wilks

THE UWI SCHOOL OF NURSING, MONA

Head/Director: Dr. Steve Weaver, PhD; MPH; BScN; RN

The UWI School of Nursing offers the MSc Nursing. The majors are categorized as follows.

Nurse Specialist
Nursing Administration
Nursing Education

Clinical Nurse Specialist
Advanced Nursing Practice
Family Nurse Practitioner
Mental Health/Psychiatric Nurse Practitioner

MSc Nursing

Specializations/Options :

Nursing Administration, Nursing Education, Clinical Nurse Specialist, Family Nurse Practitioner, Mental Health/ Psychiatric Nurse Practitioner

The objectives of the programme are:

To apply knowledge synthesized from critical analysis and theoretical concepts relevant to nursing practice

Contribute to the body of nursing knowledge through research and critical analysis of concepts and theories relevant to nursing

Conduct research as a major mean of initiating changes and elevating standards of practice

Provide consultation in their particular area of specialization

Justify practice on the basis of sound scientific evidence

Advance the discipline of nursing based on research, publication and evidence based practice

Strengthen personal and professional values and attitudes through continuing education with particular reference to clients/patients, their families and the health team

Integrate ethical principles and legal accountability in the delivery of nursing care to clients, families and communities

Demonstrate leadership in nursing care based on sound clinical judgment and critical analysis of issues

Demonstrate effective interpersonal and communication skill in interaction with the health team, clients and their families

Display a knowledgeable and informed perspective as a member of civil society

Entry Requirements

(Nursing Administration, Nursing Education and Clinical Nurse Specialist)

The programme is offered to general or trained nurses who hold registration/licensure in their current jurisdiction of practice; can verify first licensure/registration if it is different from that which is currently held, and is eligible for licensure/registration in any of the countries served by

the UWI. AND

1. have a total three (3) years post RN licensure/ registration clinical practice as a registered nurse in an approved recognized agency, institution or organization where Primary, Secondary, Tertiary or extended Health Care Services are offered. Applicants requiring admission to an Advanced Nursing Practice programme must have three (3) years current clinical practice. The time spent on any educational programme is not included in this three (3) years requirement.
2. Hold an undergraduate degree with normally not less than second class honors. OR
3. Hold a graduate degree. OR
4. Hold approved technical and/or professional qualification(s) awarded by an approved body and approved by this University and currently hold a middle level position. OR
5. Have in the opinion of the University, other qualification(s) and experience of special relevance to/the programme.

An applicant may be required to:-

Sit an Entrance Examination and/or

Attend an interview and/or

Have a period or orientation appropriate to their programme of interest, BEFORE admission

An applicant will:-

1. Have the relevant educational transcripts sent directly by the educational institution to the UWI
2. complete a portfolio relevant to nursing education/ administration/clinical experience
3. Have two (2) referees complete and send their respective recommendation the prescribed UWI form directly to the University of the West Indies
4. Provide any other documentation requested
5. Meet the deadlines stated for the submission of documents
6. Be computer literate

Entry Requirements

(Family Nurse Practitioner & Mental Health/ Psychiatric Nurse Practitioner)

The programme is offered to general and trained psychiatric nurses who hold registration/licensure in their current jurisdiction of practice; can verify first licensure/registration if it is different from that which is currently held, and is eligible for licensure/registration in any of the countries served by the UWI. AND

1. have a total five (5) years post RN licensure/registration clinical practice as a registered nurse in an approved recognized agency, institution or organization where Primary, Secondary, Tertiary or extended Health Care Services are offered. Applicants requiring admission to an Advanced Nursing Practice programme must have five (5) years current clinical practice. The time spent on any educational programme is not included in this five (5) year requirement.
2. Hold an undergraduate degree with normally not less than second class honors. OR
3. Hold a graduate degree. OR
4. Hold approved technical and/or professional qualification(s) awarded by an approved body and approved by this University and currently hold a middle level position. OR
5. Have in the opinion of the University, other qualification(s) and experience of special relevance to/the programme.
- 6.Registration licensure as a Midwife is also required for certain programmes and will be considered in the evaluation of (3) and (4). Male Nurses who do not hold Midwifery Registration or Licensure may present transcripts and certification of appropriate and comparable programmes.

An applicant may be required to:-

Sit an Entrance Examination and/or

Attend an interview and/or

Have a period or orientation appropriate to their programme of interest, BEFORE admission

An applicant will:-

1. Have the relevant educational transcripts sent directly by the educational institution to the UWI
2. complete a portfolio relevant to nursing education/ administration/clinical experience
3. Have two (2) referees complete and send their respective recommendation the prescribed UWI form directly to the University of the West Indies
4. Provide any other documentation requested

5. Meet the deadlines stated for the submission of documents

6. Be computer literate

Duration of programme

One year full-time and Two years Part-time (Nursing Administration, Education, & Clinical Nurse Specialist)

Two (2) years full-time and four (4) years part-time (Family and Mental Health Practitioners)

Programme Structure

The Nursing Administration, Education and Clinical Nurse Specialist major is offered for one (1) year full time and two(2) years part-time including summer.

The Family Nurse Practitioner and Mental Health/Psychiatric Nurse Practitioner major are offered for two(2) years full-time and four (4) years part-time, including summer in the first year.

These (4) Courses below are common to all majors

Course Core	Course Name	No. of Credits	Course Weighting
NE62A	Research Methods Applied to Nursing	4	60% Exam 40% Coursework
NE62B	Nursing Research Project	3	60% Exam 40% Coursework
NE63C	Theoretical Frameworks & Advanced Nursing Practice with Practicum	4	60% Exam 40% Coursework
NE66A	Mental & Physical Health Education	3	60% Exam 40% Coursework

Courses(Core): Administration

Course Code	Course Name	No. of Credits	Course Weighting
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NE67A	Theoretical Perspectives in Nursing Administration	3	60% Exam 40% Coursework
NE67B	Models of Nursing/Health Care Administration	3	60% Exam 40% Coursewrk
NE67C	Issues in Managing Nursing/Health Care Delivery Work System	3	60% Exam 40% Course
NE67D	Human Resource Management in Nursing/Health Administration	3	60% Exam 40% Coursework
NE67E	Nursing Administration Practice & Seminar	5	60% Exam 40% Coursework

Courses(Core): Education

Course Code	Course Name	No. of Credits	Course Weighting
NE68A	Theoretical Perspectives in Nursing Education	3	60% Exam 40% Coursework
NE68B	Curriculum Development, Implementation and Evaluation Work in Nursing/Midwifery Education	3	60% Exam 40% Course
NE68C	Testing & Measurement in Nursing Education	3	60% Exam 40% Coursework
NE68D	Theoretical & Clinical Teaching Practicum	3	60% Exam 40% Coursework
NE68E	Nursing Education Practice & Seminar	3	60% Exam 40% Coursework

Courses(Core): Clinical Nurse Specialist

Course Code	Course Name	No. of Credits	Course Weighting
NE60D	Advanced Nursing Practicum I & Seminar	7	60% Exam 49% Coursework
NE63A	Growth & Development and Clinical Practicum	3	60% Exam 40% Coursework
NE63B	Specialization Seminar Advanced Nursing Practice	5	60% Exam 40% Coursework
NE68D	Theoretical & Clinical Teaching Practicum	3	60% Exam 40% Coursework

Courses(Core): Family Nurse Practitioner

Course Code	Course Name	No. of Credits	Course Weighting
NE60A	Advanced Nursing Practicum I and Seminar	3	60% Exam 40% Coursework
NE60B	Advanced Nursing Practicum II and Seminar	3	60% Exam 40% Coursework
NE60C	Advanced Nursing Practicum III and Seminar	3	60% Exam 40% Coursework
NE61C	Pathophysiology for Advanced Nursing Practice	8	60% Exam 40% Coursework
NE63A	Growth & Development and Clinical Practicum	3	60% Exam 40% Coursework
NE69A	General Pharmacology	2	60% Exam 40% Coursework
NE69B	Special Pharmacology	4	60% Exam 40% Coursework
NE69C	Psychopharmacology	2	60% Exam 40% Coursework

Courses(Core): Mental Health/Psychiatric Nurse Practitioner

Course Code	Course Name	No. of Credits	Course Weighting
NE60A	Advanced Nursing Practicum I and Seminar	3	60% Exam 40% Coursework
NE60B	Advanced Nursing Practicum II and Seminar	3	60% Exam 40% Coursework
NE60C	Advanced Nursing Practicum III and Seminar	3	60% Exam 40% Coursework
NE61A	Neuro-Sciences	3	60% Exam 40% Coursework
NE61B	Psychopathology for Advanced Nursing Practice	5	60% Exam 40% Coursework
NE63A	Growth & Development and Clinical Practicum	3	60% Exam 40% Coursework
NE69A	General Pharmacology	2	60% Exam 40% Coursework
NE69B	Special Pharmacology	4	60% Exam 40% Coursework
NE69C	Psychopharmacology	2	60% Exam 40% Coursework

Electives

An elective chosen by the student and normally not more than three (3) credits which must be approved by the MScN Coordinator and the Head (or her/his designate) in the Department where the elective is sought. The elective can be taken on any campus of the UWI or in another University with comparable education and with the necessary approval from both UWI and the selected University, and at the students expense. An elective can be taken in any semester or during the summer

Departmental Courses (for Nursing Education, Nursing Administration & Clinical Nurse Specialist)

Course Code	Course Name	No. of Credits	Course Weighting
NE64A	Nursing & Health Information System	3	60% Exam 40% Coursework
NE65A	Policy & Ethical Issues in Nursing Health	3	60% Exam 40% Coursework

Course Description:

NE60A The course exposes postgraduate students to advanced and current practices in caring for children and adolescents during specific the growth development episodes along the life cycle.

Students gain beginning prescriptive skills, proficiency in using the nursing process and documentation system through three (3) days weekly direct preceptored interaction with clients/patients and their families and to be enabled to practice at an advanced nursing level. Students are preceptored 1:1 practicum provides ongoing guidance and assessment of clinical practice focusing on caring, critical thinking, clinical judgment, problem solving and documentation.

NE60B The student for four (4) days weekly engages in a more extensive continuation of Practicum 1 with more independent and less closely monitored preceptorship and assessments. The student increasingly undertakes responsibility for a client/patient load on a daily basis.

NE60C This course enables students to synthesize evidence-based knowledge and learning from previous nursing courses into practice. The student consolidates his or her practice experiences through independent and interdependent practice under preceptorship in the prospective working environment (or as near as possible) with regular ongoing monitoring, supervision and guidance. This practicum concludes with a one (1) week review by the preceptor where the student is engaged in oral and written presentations, self and programme evaluation and exit interview.

NE60D This course exposes students to concepts, scientific bases and theoretical constructs

that underpin clinical nurse specialization; explores current issues related to advanced nursing practice; differentiates among advanced nursing practices; and assist in linking organizational instruments to clinical nursing operations. It challenges students to engage in critical thinking, use of evidence-based practice and in using the nursing process effectively as the modality of problem solving and bases for clinical judgment in nursing practice. It also builds on the clinical and management skills of students by exposing them to complex patient care situations and human resources management strategies required for making quality decisions. In this course caring and effective interpersonal relationships are incorporated into patient care delivery and interpersonal relationships with emphasis on the communication process between nurse and patient and other health team members.

NE61A The course engages graduate students in a discussion forum that enables critical thinking the application of evidence-based knowledge of basic brain biology as a basis for understanding mental health disorders, brain technology and psychopharmacology. The course focuses on neuro-anatomy, genetic/familial correlates, systems of neuro-regulation, psycho-endocrinology, psycho-immunology, normal biological rhythms, psycho-biological dysfunctions, biological theories of major psychiatric disorders, brain imaging and diagnosing of mental illness and physiological indices of mental health and illnesses.

NE61B This course exposes graduate students to evidence-based knowledge in pathopsychology and empowers them to be effective in caring for persons throughout the life cycle and along the wellness-illness continuum. Students are guided in using critical thinking and sound clinical judgment in interpreting psychopathological findings in making differential diagnosis and selecting appropriate treatment modalities. The course familiarizes students with research based evidence based on etiological theories including organic, familial, interpersonal and psycho-social perspectives. It seeks to develop the skills of the student in recognition of the various factors that influence the development of psychopathology.

NE61C Students will be enabled to develop a deeper and broader understanding of normal body functioning, system integration, common recurrent deviations and their pathophysiological manifestations, investigative measures, pharmacological as well as other treatment and care modalities, direct and indirect interventions, palliative, rehabilitative, or restorative measures and their respective anticipated outcomes. The course assists students to effectively use the nursing and medical processes in identifying deviations through health assessment, formulation of diagnoses, selection and interpretation of diagnostic investigations, planning, implementation and evaluation of appropriate treatment regimes. Students are facilitated to integrate critical thinking, developing the clinical skills, clinical judgment and decision-making ability necessary for ethical advanced nursing practice.

NE62A This course enables students to gain critical thinking skills in critiquing research findings and to decide on the best evidence in making decisions in nursing practice. It exposes students to a variety of research designs and their application to nursing practice. Emphasis is placed on quantitative and qualitative research principles, research methods and the application to evidence-based practice in nursing phenomena and the importance of research in advancing nursing practice.

NE62B Students will refine the project proposal developed to address a specific nursing project in NE62A, (Research Methods applied to Nursing) collect and analyze data and write a project report.

NE63A The primary focus of this course is the growth and development of individuals along the life cycle. Emphasis is placed on critical thinking and the acquisition of evidence-based knowledge and skills in determining normal physical characteristics and behaviours. A substantial portion of the course will be devoted to transferring theory to practice. Practical experiences will be gained at major hospitals and selected care centres.

NE63B Students are enabled to integrate theory and clinical practice, develop critical thinking skills and demonstrate clinical judgment in analyzing patient problems. A forum for developing leadership and initiating change is also facilitated. Students will reflect on and discuss their practice in terms of interviewing, assessment, diagnosis, planning, intervention, documentation, evaluation, knowledge gaps, problems encountered, actual or potential resolutions.

NE63C This course exposes post graduate students current theories development and substruction and the use of theoretical frameworks and principles in guiding nursing practice. It assists students to integrate evidence based theoretical models and the nursing process in decision-making for quality care of persons throughout the life cycle and along the wellness-illness continuum. The course enables students to become proficient in comprehensive subjective and objective assessment of persons along the life cycle as the foundation for caring and delivery of quality nursing practice. Students will benefit from demonstration and supervised return demonstration in physical examination. Competency in physical examination will be accomplished through use of simulators and practice with peers.

NE64A This course is practice based and introduces students to nursing and health information systems from the Caribbean and global perspectives. The use of standardized nursing languages in the information age is critically analyzed in the context of the Caribbean and in relation to functional and clinical nursing practice also nursing research. It is designed to assist postgraduate students to think critically in selecting information systems for their practice and in using evidence-based information to decision-making in nursing practice and research. It builds on experiences in learners areas of nursing specializations. The course addresses current issues and practices in information management systems. It also exposes students to the capabilities and usage of information systems and networks and their use in nursing practice. Learners are guided through laboratory practice sessions to be adept in intranet/internet navigation and database development and usage. Throughout the course issues related to copyright, legal and ethical issues pertaining to information, knowledge and technology usage and application to nursing practice are explored.

NE65A This course focuses postgraduate students on the processes and strategies of policy formulation, implementation and evaluation in nursing and health care practice. It explores the trends, projections, legal and ethical issues inherent in the policy process. It assists students to become familiar with their roles in the policy process and the impact of policy on the lives of individuals throughout the life cycle and along the wellness illness continuum. Students are

enabled to think critically on the implications of national policies on health care financing and the quality of health care delivery and nursing practice.

NE66A The course enables nurses to be familiar with the concepts, principles and methods of health education and health promotion and their use in promoting physical and mental health to persons along the wellness-illness continuum and throughout the life span. Emphasis is placed on integration of the Caribbean Charter for Health Promotion and evidence-based information in designing programmes and activities in nursing practice. The course requires learners to apply ethical principles, critical thinking and effective interpersonal relationships in designing, promoting and implementing patient physical and mental health messages.

NE67A This course analyses management theories, organizational practices and techniques with a view of devising problem-solving strategies to resolve organizational issues and problems in nursing administration. Emphasis is placed on critical thinking, evidenced based nursing practice and ways to incorporate effective interpersonal relations in delivering quality management for nursing organizational and clinical effectiveness.

NE67B This course provides an overview of the evolution of Caribbean health care delivery systems including their organizational structure, financing system and models of health care delivery. Comparison is made with international health and nursing care models, and their relevance to health care delivery in the Caribbean region. Students will examine the impact of current health care policies upon the health status of individuals. The importance of effective information management on quality operations and strategic decision making in health care delivery will also be explored.

NE67C This course follows NE 67B Models of Nursing/Health Care Administration and explores contemporary practice issues within the framework of managing Caribbean nursing/health care delivery systems. It critically analyzes trends in managing quality nursing/health care practice issues within the context of ethical, bio-ethical, economic and legislative parameters.

The course further highlights roles and responsibilities of the Nurse Administrator in developing initiatives for implementing, monitoring and evaluating evidence-based nursing research and practice. Emphasis is placed on the roles and responsibilities of the Nurse Administrator in evidence-based implementation of suitable management strategies. Additionally, it gives prominence to critical thinking in examining the dynamic impact of health sector reform on nursing and health care delivery internationally, regionally and locally.

NE67D The design of this course provides a wide perspective of the theories and principles of human resource management and their application to nursing/health care. It introduces students to the most relevant issues in personnel and human resource management and critically examines the nurse managers roles in enhancing the growth and development of the human capital in nursing. Issues of employee appraisal and discipline, union management relations and quality management are addressed.

NE67E This course provides students with planned opportunities to apply evidence-based

knowledge from the managerial sciences into nursing administrative practice. It provides opportunities for learners to gain competence and experiences in use of administrative techniques, methods and management concepts, theories, and principles in a variety of institutions and health agencies. Emphasis is placed on critical thinking and the integration and transfer of evidence based knowledge to practice and the development of nursing administrative competence to meet the challenges of the Caribbean and global trends.

NE68A The course enables students to explore current educational concepts, theories and principles and their application to nursing education within the Caribbean context. The appropriateness of educational models is analyzed to develop students critical thinking skills and in the process of applying evidence based teaching and learning in nursing education. Emphasis is placed on self directed learning, experiential learning, adult learning and the designing of teaching/learning models and teaching plans, that enable transfer of educational principles in the teaching of nursing learners along the learners life cycle.

NE68B This course will enable students majoring in nursing/midwifery education to acquire in depth knowledge and understanding of the curriculum planning and development process. This course will equip students with skills to synthesize knowledge from various theoretical constructs and concepts and use it to guide the development, implementation and evaluation of professional nursing curriculum. Throughout this course, students will be guided in analyzing models. Frameworks and principles used in curriculum development, implementation and evaluation. Students will apply principles, knowledge of nursing science and understanding of health issues in the wider society to design a nursing curriculum. Plan its implementation and develop evaluation strategies for the proposed curriculum.

NE68C The course is designed to enable students to acquire knowledge and develop skills in test construction and measurement in curriculum evaluation. The focus will be on application of testing and measurement principles to nursing education.

NE68D This course consolidates the concepts, theories, principles and teaching techniques of NE 68A, NE 68B and NE68C and integrates these into teaching of nursing students to apply evidence based nursing practice to patients at any stage of the wellness-illness continuum along the life cycle and in any clinical setting. It enables aspiring nursing teachers to apply critical thinking and develop confidence in transferring theory to practice while concurrently assisting nursing students to develop critical thinking and sound clinical judgment in using the nursing process and in skills development. This course involves in-depth examination of the principles of teaching and learning both in the classroom and clinical areas. It also analyzes the critical elements necessary for clinical teaching and guidance. Current teaching methods and instructional technologies are examined and applied where appropriate and feasible. Teaching laboratories are used to develop competencies and practice teaching for skill refinement. Major emphasis is on applying knowledge to clinical practice. Laboratory and clinical experiences are integrally interwoven into this course. The focus is to uncover and discover knowledge implicit in the clinical practice. Use of the androgical approach is emphasized.

NE68E This course provides students with planned opportunities to apply theoretical knowledge gained in NE68A, 68B, 68C, 68D, to practical situations in selected health care and

educational agencies. Students will begin with observation visits in general education institutions and selected nursing agencies progressing to gain teaching/ learning experiences in schools of nursing. The course emphasizes teaching methodologies and techniques and fosters self-directed learning and professional developmental attitudes.

NE69A This course provides the student with evidence-based knowledge in pharmacotherapeutic principles with special emphasis on pharmacokinetics and pharmacodynamics of drugs. It also engages the learner to apply critical thinking and use of evidence-based practices in advance practice nursing in prescribing and management of pharmacologic preparations.

NE69B This course exposes students to a wide spectrum of drugs commonly used in clinical practice. According to the approved protocols, dosages, interactions, side effects and the implications of drug therapy are emphasized, enabling the nurse to appropriately prescribe on the basis of clinical evidence and to teach clients/patients and their families to manage their health maintenance through drug therapy. Focus is placed on the features of drug dosages with reference to pharmacokinetics, pharmacodynamics and pharmacotherapeutics enabling the nurse to appropriately prescribe.

NE69C Students are exposed to current developments in psychopharmacology and their uses in the treatment of mental illness. The nurses role in managing patients drug regime is explored. Indications for use of psycho- pharmacological agents, their therapeutic value effects and side effects are examined.

Department Contact Information:

The UWI School of Nursing Faculty of Medical Sciences UWI, MONA

Programme Coordinator: Dr. Eulalia Kahwa

MPhil/PhD in Nursing

Programme Objectives:

- i. To strengthen and expand knowledge, skills, and expertise that will build the capacity for substantive health and nursing research
- ii. Prepare nurses scientists who will carry out cutting-edge, collaborative research shaped by the priority health needs of the region
- iii. Mentor junior members of the nursing profession to increase utilization of evidence-based research in their practice

Entry Requirement:

- i. Minimum of Upper Second Class Honours degree or equivalent

- ii. Statement of area of interest, tentative thesis topic, and brief research proposal with the potential to add new knowledge to nursing and health care in the Caribbean
- iii. Official transcripts from all post-secondary schools sent directly from the educational institution to the UWI
- iv. Current resume or curriculum vitae
- v. Two letters of recommendation
- vi. Interview with a panel of UWISON PhD-prepared faculty
- vii. Writing competency, based the above statement of research
- viii. Current licensure to practice nursing in the applicant's country of residence. Upon acceptance, students who are not from Jamaica will proceed to acquire provisional licensure from the Nursing Council of Jamaica.
- ix. Completion of a basic statistics course and an introductory nursing research course at the B+ level or above within the past 5 years
- x. A minimum of 3 years of recent nursing practice in a clinical, research, educational and/or administrative setting

Seminars: 5 Seminars - 2 MPhil
 - 3 PhD

Duration of programme:

MPhil 2 years full-time and 5 years part-time
 PhD 5 years full time and 7 years part time

Programme Structure:

MPhil	PhD
Advanced Nursing Science & Theory Course	Research project & PhD Thesis
Advanced Nursing Research Methodologies Applied to Nursing	PhD Research Seminars(3 minimum)
2 courses probably in Advanced Statistics and in Advanced Research Methodology related to the student's research area	Scholarly presentation and defense of PhD Thesis
courses related to the student's research area	
Online Database Searching	
Competency in Microsoft Excel® and PowerPoint®	
MPhil Research Seminars (2 minimum)	
Interim report of research Upgrade to PhD level	

Enrollment Option: Full Time /Part Time

Courses (Core):

Course Code	Course Name	No. of Credits	Course Weighting
NURS6203	Advanced Research Methodologies Applied to Nursing	4	40% Coursework 60 % Examination
NURS6305	Nursing Science & Theory	4	40% Coursework 60 %Examination

NURS6203 : Research Methodologies Applied to Nursing***Course Description:***

This course is designed to enhance the student's critical and analytical skills in evidence-based nursing practice. The course aims to develop student's understanding of a broad range of research methodologies appropriate to research in Nursing and to foster a critical approach to published nursing research. The course will enable students to develop a sound understanding of the research process, appreciate concepts, assumptions and techniques in the analysis of quantitative and qualitative data and develop a fundable research proposal.

NURS6305: Advanced Nursing Science and Theory***Course Description:***

The course is designed to engage the student in the critical analysis of nursing science, theories, philosophies, and models. It focuses on strengthening the student's knowledge of the metaparadigm of nursing and selected grand and midrange nursing theories. The student will apply the paradigms of selected theories to their particular areas of nursing research and evidence-based practice.

Two (2) courses probably in Advanced Statistics

courses related to the student's research area

MPhil Research Seminars (2 minimum)

PhD Research Seminars (3 minimum)

Scholarly presentations and defense of PhD research

Department Contact Information:

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