The field of medical genetics in the Philippines is fast expanding due to the increasing awareness and diagnosis of disorders with genetic etiologies, expansion of the National Comprehensive Newborn Screening System, the Birth Defects Surveillance project and the Telegenetics Referral System. Serving approximately 90 million people, there are only seven clinical medical geneticists available, five of them are currently practicing in Manila, one in Cebu and one in Davao. Due to the limited number of clinical medical geneticists, there is a demand for additional health care providers specializing in genetics to serve in clinical practice (public and private), academic medical centers, administrative positions, and research laboratories.

The Master of Science in Genetic Counseling is a two-year degree program that prepares students to become competent genetic counselors. Genetic counselors are health care providers with specialized training in psychosocial counseling of patients and members of their families with risks for genetic disorders. They provide genetic counseling which involves data gathering of family history information and assessment. Genetic counselors work closely with the clinical/medical geneticist who provides the clinical diagnosis and management of a patient. They also work with a team of other health care providers (i.e., social workers, nurses, nutritionists, and other specialized medical professionals) to provide the best care to patients and their families.

The degree program will serve a vital role in the access, delivery, and expansion of medical genetics, not only in the Philippines but also in the Southeast Asia region.

As the students complete the two-year degree program, they will be competent in assisting clinical medical geneticists in diagnosing and managing patients with various genetic conditions. The students will be able to address the implications of the diagnosis, both medically and psychosocially, to the patient and members of their families.

Graduates will be able to:
1. apply the basics of human genetics and the principles of clinical medical genetics and genetic counseling to patients;
2. provide supportive genetic counseling to families, serve as patient advocates, and refer patients and families to community and/or local government support services;
3. contribute to existing knowledge on genetic counseling through research;
4. serve as educators and resource for other health care professionals and for the general public; and
5. plan, develop, and evaluate genetic services programs.

Rationale

Program Goals

Academic Information

The academic year is divided into 2 semesters of 16 weeks each, excluding registration and final examination periods. The 1st semester starts in June and ends in October, while the 2nd semester covers the period from November to March, with a two-week Christmas vacation in December. The summer session of 6 weeks follows the 2nd semester is usually in April and May.

The tuition fee is P990.00 per unit, library fee is P1,050.00 and other fees is P350 per semester. A student with a load of 15 units in a semester matriculates P16,250.00 on the average while a foreign student pays an additional Educational Development Fund of US $500.00 (US $100.00 for residency only) for every semester. There is a processing fee of P300.00 for Filipino applicants while TOEFL (or its equivalent) score of at least 500 (written test) or 173 (computerized test) if English is not the medium of instruction in the country of origin.

Admission Requirements

The following are the minimum NGOHS requirements:
1. Good scholastic record from any recognized institution of higher learning
   * prerequisite include completion of undergraduate courses in biology, chemistry, psychology or related courses.
2. Entrance Interview
3. Completed Application Form (available at the Graduate Office or through www.ngohs.upm.edu.ph) together with the following documents:
   * original copy of the official Transcript of Records
   * 2 recommendations from former professors, supervisors or employers (forms included in the application packet)
   * receipt of processing fee paid at the UPM Cashier’s Office
   * certified true copy of diploma with the seal of the university and the signature of the registrar in ink
   * 4 passport-size photos
   * resume or curriculum vitae
   * photocopy of birth certificate and marriage certificate for married female applicants

Graduation Requirements

A candidate for the degree of Master of Science in Genetic Counseling must comply with the rules of graduation of the University.
1. Completion of academic requirements with a general weighted average not lower than 2.0;
2. Passing written comprehensive examination in the department;
3. Completion of the thesis research project. This must be an original research work that constitutes a substantial contribution to knowledge or skill in genetic counseling, through oral and written form;
4. Submission of a log book documenting 40 genetic counseling cases per student. The 40 patient clinical cases include 10 pedi- gree reports and 30 case reports (5 prenatal, 10 general pediatric, 10 metabolic and 5 adult cases).

Curriculum

Core Courses (16 units)

- Genetics 201 Principles of Human Genetics 3 units
- GC 201 Principles of Genetic Counseling 3 units
- Biostat 201 Fundamentals of Biostatistics 3 units
- Epi 201 Principles of Epidemiology 3 units
- Biostat 206 Research Methods I 2 units
- HPEd 261 Organization and Management of Health Programs 2 units

Major Courses (13 units)

- GC 202 Psychosocial Aspects of Genetic Counseling 3 units
- Genetics 202 Public Health Genetics 3 units

∗ essay on an 8-1/2” x 11” sheet of paper stating the interest in genetic counseling and your view of self-directed learning as a method of instruction, and a description of your research interest

∗ For foreign applicants, additional requirements include:
  * original Transcript of Records in English. If written in another language, must be translated to English and authenticated by the Philippine consulate/embassy from country of origin
  * certified true copy of diploma with the seal of the university and the signature of the registrar in ink. If written in another language, must be translated to English and authenticated by the Philippine consulate/embassy from country of origin
  * affidavit of support or certification of financial capability
  * photocopy of passport (present original for verification)
Master of Science in Genetic Counseling

Training students to become competent genetic counselors who will serve a vital role in the access, delivery, and expansion of medical genetics in the Philippines.

Application forms may be obtained from and mailed / returned to:

THE DIRECTOR
NATIONAL GRADUATE OFFICE FOR THE HEALTH SCIENCES
University of the Philippines Manila
Padre Faura corner Maria Orosa Streets
Ermita 1000 Manila Philippines
www.ngohs.upm.edu.ph

Further inquiries may be sent to:
Department of Pediatrics
College of Medicine - Philippine General Hospital
University of the Philippines Manila
Phone: +632-554-8400 loc 2100/2101/2107
Fax: +632-524-0892
E-mail: upcmpedia@yahoo.com

Institute of Human Genetics
National Institutes of Health
University of the Philippines Manila
Phone: +632-307-0780/ 88
Fax: +632-526-9997

A program offering of the
Department of Pediatrics – Genetics Section
COLLEGE OF MEDICINE
University of the Philippines Manila
Pedro Gil Street, Ermita 1000 Manila Philippines

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**Course Description**

| Genetics 201 Principles of Human Genetics |
| Introduction to the organization of the human genome and principles of inheritance in humans |

| Genetics 202 Public Health Genetics |
| Overview of genetics and public health, historical perspectives, its integration into the public health practice, current challenges and opportunities |

| Genetic Counseling 201 Principles of Genetic Counseling |
| Fundamental theories and principles of effective patient/client interviewing in genetic counseling practice |

| Genetic Counseling 202 Psychosocial Aspects of Genetic Counseling |
| Psychosocial and counseling theories, approaches, and resources necessary for the provision of genetic counseling |

| Genetic Counseling 203 Applied Genetic Counseling |
| Hands-on training in various genetics clinic (i.e., general, metabolic, newborn screening, prenatal, cancer) serving a variety of referral indications and attendance to regional genetics clinic and newborn screening centers |

| Genetic Counseling 204 Professional Issues in Genetic Counseling |
| Professional standards, ethics, legal principles, health systems and policy issues relevant to genetic counselors |

| Genetic Counseling 205 Genetic Counseling in Hospital Setting |
| Clinical rotation in a genetics clinic of choice serving a variety of referral indications |

| Genetic Counseling 206 Genetic Counseling in Community Setting |
| Clinical rotation in a community setting of choice |

| Genetic Counseling 207 Seminars in Genetics and Genetic Counseling |
| Topics in medical genetics in a forum setting |

| Genetic Counseling 300 Master's Thesis |
| Thesis research project in the field of genetic counseling |

| Elective Courses (2 units) |
| GC 205 Genetic Counseling in Hospital Setting 2 units |
| GC 206 Genetic Counseling in Community Setting 2 units |
| CE 297 Seminars in Health Social Science 2 units |
| MI 238 Applications of Internet Technologies in Health care 2 units |

| Master's Thesis (6 units) |
| Total 37 units |

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**Faculty**

Department of Pediatrics

Carmencita David-Padilla, MD, MAHPS (Program Director)
Clinical Geneticist

Catherine Lynn Silao, MD, PhD
(Co-Program Director)
Molecular Geneticist

Mary Anne Chiong, MD
Clinical Geneticist

Eva Maria Cutiogonco-Dela Paz, MD
Clinical Geneticist

Maria Melanie Alcausin, MD
Clinical Geneticist

Mercy Ygona Laurino, MS
Licensed Certified Genetic Counselor
Seattle, Washington USA
DOST– Balik Scientist

Clinical Training Sites
Out-patient Clinic, PGH
Regional Field Clinics (Cebu, Davao, Manila)
Cancer Clinic, PGH
Cardiovascular Clinic, PGH
Prenatal Clinic - Obstetrics and Gynecology, PGH