# <u>CHAPTER 5:</u> Joint Academic Programs

#### JOINT ACADEMIC PROGRAMS

- Master of Arts in Health Policy Studies
- Master of Clinical Audiology
- Master of Science in Health Informatics
- Master of Science in Bioethics
- Diploma in Bioethics

## **MASTER OF ARTS IN HEALTH POLICY STUDIES**

## Joint Program Offering of the COLLEGE OF ARTS AND SCIENCES & the COLLEGE OF PUBLIC HEALTH

The University of the Philippines Manila is recognized as the premiere academic institution in the health sector and members of its community have played an active role in the formulation and implementation of health policy in the nation and in the Asia-Pacific region. Given its mission of producing top caliber health practitioners who value integrity and are nationalist oriented, it becomes imperative that it plays a lead role in policy studies. Such a program should address health issues within the context of a developing society where a big percentage of the population is poor. Health policies should promote the common good by ensuring that the health delivery systems address the concerns of the poor and the marginalized. There are two approaches or tracks to fulfill the requirements of this degree program, one of which is the Health Social Science Track. This track seeks to study the health policy process within the socio-cultural context and thus, makes use of and integrates the various disciplines in the social sciences such as history, political science, economics, anthropology, sociology and psychology to approach health policy issues.

#### Objectives

The program will develop student competencies in the health policy process which involves policy formulation, implementation, monitoring and evaluations as well as advocacy. At the end of the course, the student shall:

- a. Understand the nature and dynamics of health policy development.
- b. Be able to discuss the interplay of the various factors (economic, political, social, legal and administrative) that affect the health situation.

- c. Demonstrate an interdisciplinary orientation in approaching and resolving health issues.
- d. Demonstrate an understanding of the health policy development process that integrates the roles of health and social sciences.
- e. Demonstrate a proactive orientation in identifying and analyzing priority public policy issues.
- f. Formulate socially responsible and relevant health policy recommendations as a result of professional policy analysis and research.
- g. Demonstrate a capacity to engage in policy advocacy and consensus building in developing policy.

#### **Academic Information**

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

English is generally used as the medium of instruction. A full time student's normal load is 12-15 units per semester and 6 units during summer; a part-time student enrolls in half of these. At present, the tuition fee is PhP 990.00 per unit and the miscellaneous fee is around PhP 1,050.00 per semester. A student with a load of 15 is a semester matriculates PhP 16,250.00 on the average while a foreign student pays an additional Educational Development Fund of USD 500.00 (USD 100.00 for residency only) for every semester. There is a processing fee of P300.00 (for Filipino applicants while interested foreigners are charged US \$30.00. Application documents will be accepted until the second week of April of each academic year.

The following may enroll for this particular program:

- 1. Health program managers who wish to understand the health policy process for more effective program formulation and implementation.
- 2. Staff and personnel of government agencies concerned with health who are directly involved in the day activities of policies analysis and development.
- 3. Staff of research and educational institutions both in the Philippines and in the Asia-Pacific region staff of non-government organizations and people's organizations.

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- 5. Members of local health boards and committees.
- 6. Health and other professionals interested in developing expertise in health policy and development, and in health services and policy research.

| Curricular Program Requirements | Units |
|---------------------------------|-------|
| Major                           | 14    |
| Core                            | 16    |
| Electives                       | 4     |
| Thesis                          | 6     |
| TOTAL                           | 40    |

### Admission Requirements

(see details on Graduate Programs)

## Graduation Requirements

- 1. Residency of at least one full academic year prior to granting of degree.
- 2. Completion of 40 units.
- 3. GWA of 2.00 or better in major and all courses taken.
- 4. Passing the comprehensive examination.

| Courses  | <u>Units</u>                    |
|--|---------------------------------|
| MAJOR:   | <u>0 nus</u><br>14              |
| HPS 221: Political Dynamic in the              | 2                               |
| Health Policy Process                          |                                 |
| HPS 222: Comparative Study of Health           |                                 |
| Policy Development in Asia-Pacific             | 2                               |
| HPS 223: Issues in International Health Policy | 2<br>2<br>2<br>2<br>2<br>2<br>2 |
| HPS 231: Health Policy and Quality of Life     | 2                               |
| HPS 232: Fiscal Management in Health           | 2                               |
| HPS 233: Health Policy Issues                  | 2                               |
| HPS 234: Gender Issues and Health              | 2                               |
| Policy Development                             |                                 |
| HPS 235*: Social Epidemiology                  | 2                               |
| HPS 236: Sociology of Health                   | 2<br>2<br>3                     |
| HPS 237: Issues in Health Economics            | 3                               |
| HPS 241: Prin. & Process of Health             | 2                               |
| Policy Implementation & Evaluation             |                                 |
| HPS 280: Field Practice                        | 2                               |
| HPS 299: Special Studies & Research            | 2<br>3                          |
| Anthro 267: Medical Anthropology               | 4                               |
| Psych 202: Special Topics in                   |                                 |
| Psychology: Health Psychology                  |                                 |
| Psych 281: Special Topics in Social            |                                 |
| Psychology: Health and Behavior                |                                 |
| CORE:  | 16                              |
| HPS 201: Fundamentals of Policy Studies        |                                 |
| HPS 202: Research Methods in Policy Studies    | $\frac{1}{2}$                   |
| HPS 203: Ecology of Policy Development         | 2<br>2<br>2                     |

| HPS 202: Research Methods in Policy Studies   | 2 |
|---|---|
| HPS 203: Ecology of Policy Development        | 2 |
| HPAd 201: Principles of Health Administration | 2 |
| PHA 208 Economics in Health                   | 2 |
| BIO 201: Fundamentals of Biostatistics        | 3 |
| EPI 201: Principles of Epidemiology           | 3 |
|   |   |

## **ELECTIVES:**

## *Electives may be chosen from the list of major courses within program track*

| THESIS:<br>HPS 300: Thesis | 6  |
|----------------------------|----|
| TOTAL                      | 40 |

## **COURSES OFFERED**

## HPS 221: Political Dynamics in the Health Policy Process.

Analysis of power relations and interplay among governmental policy making bodies, political parties, interest groups, NGOs and other stakeholders and the processes of public opinion formation, consensus building as they relate to the health policy process.

## HPS 222: Comparative Study of Health Policy Development in Asia Pacific.

Comparison of representative models and case histories of health policy development of selected countries in the Asia-Pacific Region.

## HPS 223: Issues in International Health and Policy.

Discussion of international and social issues related to health policy development.

## HPS 231: Health Policy and Quality of Life.

Analysis of issues relevant to the use of quality of life (QOL) data in formulating health policy, emphasis on QOL as the endpoint in the health policy process.

## HPS 232: Fiscal Management in Health.

Theories and practice of fiscal management in health policy development.

## HPS 233: Health Policy Issues.

Identification and analysis of current social issues (i.e., ethics, environment, globalization, devolution, traditional medicine, etc.) which affect health policy development.

## HPS 234: Gender Issues and Health Policy Development.

Identification and analysis of gender issues in health policy development.

## HPS 235: Social Epidemiology.

Critical analysis of the social cultural factors and its effects on morbidity and mortality patterns.

## HPS 236: Sociology of Health.

Application of the principles of sociology on health issues.

## HPS 237: Issues in Health Economics.

Application of the principles of economics on health issues.

## HPS 241: Principles and Process of Health Policy Implementation and Evaluation.

Application of social science principles in health policy evaluation.

## MASTER OF CLINICAL AUDIOLOGY

## Joint Program Offering of the COLLEGE OF ALLIED MEDICAL PROFESSIONS & the COLLEGE OF MEDICINE

The Master of Clinical Audiology (MClinAud) is a two-year entry level graduate program that integrates basic theoretical knowledge and its clinical applications in the prevention and management of hearing impairments. The program covers the areas of audiologic evaluation, audiologic habilitation, hearing conservation, and the development of audiology service delivery programs. It is jointly offered by the College of Medicine and the College of Allied Medical Professions, with particular involvement of the Department of Otorhinolaryngology and the Department of Speech Pathology.

#### **Objectives**

At the end of the program, the graduate should demonstrate mastery of the necessary knowledge, skills and attitudes to:

- 1. Competently evaluate hearing;
- 2. Effectively engage in the habilitation and rehabilitation of hearing;
- 3. Propagate audiology in the country as a service and as a profession.

| Curricular Program Requirements | Units |
|---------------------------------|-------|
| Major*                          | 30    |
| Qualified Elective**            | 2     |
| Cognate                         | 4     |
| TOTAL                           | 36    |

- \* Designated as Core Courses by the UP BOR when the program was approved 27 May 1999; reclassified as Major Courses based on Memorandum No. 03-70 from the OVPAA 16 Sept 2003.
- \*\* Designated as Elective Courses by the UP BOR when the program was approved 27 May 1999; reclassified as Qualified Electives based on Memorandum No. 03-70 from the OVPAA 16 Sept. 2003.

#### Admission Requirements

Applicants to the Master of Clinical Audiology program should have previously earned a Bachelor of Science degree.

#### Graduation Requirements

In addition to the general requirements for graduation from all UP Manila graduate programs, students of the MClinAud program must:

- 1. Complete a total of 300 client contact hours. These hours may be obtained in CAUD 211, CAUD 212, CAUD 280, CAUD 234 and SP 232. Additional clinical exposure may be arranged as needed.
- 2. Pass a comprehensive examination.

## MAJOR

| Course Title                               | Units |
|--|-------|
| CAUD 201: Theoretical Basis of Audiology   | 2     |
| CAUD 203: Auditory and Language Pathology  | 2     |
| CAUD 205: History Taking and Professional  | 1     |
| Behavior in Clinical Audiology             |       |
| CAUD 211: Assessment Strategies I          | 4     |
| CAUD 212: Assessment Strategies II         | 4     |
| CAUD 230: Hearing Amplification            | 2     |
| CAUD 234: Aural Rehabilitation in Adults   | 1     |
| CAUD 236: Hearing Conservation             | 1     |
| CAUD 251: Program Development in Audiology | 2     |
| CAUD 280: Clinical Practicum               | 4     |
| CAUD 296: Special Project                  | 4     |
| SP 232: Aural Rehabilitation in Children   | 3     |
| FLECTIVES                                  |       |
|  |       |

#### ELECTIVES

| Course Title                                 | Units |
|--|-------|
| RS 203: Education for Rehabilitation         | 2     |
| Science (classroom teaching)                 |       |
| RS 204: Education for Rehabilitation         | 2     |
| Science (clinical teaching)                  |       |
| CAUD 299: Introduction to Research Audiology | 2     |

### **COURSES OFFERED**

#### CAUD 201: Theoretical Bases of Audiology.

Study of the theoretical concepts of audiology including Anatomy of the ear, Physiology of hearing, acoustics, psychoacoustics and perception of sound. Includes acoustic and perceptual phonetics. *Credit: 2 units (lec)* 

#### CAUD 203: Auditory and Language Pathology.

Multi- and inter-disciplinary approaches to the management of the hearing impaired. Includes exposure to related medicalsurgical and speech-language pathologies. *Credit: 2 units (1.5 units lec, 0.5 unit lab) Prerequisites: CAUD 211, CAUD 212* 

## CAUD 205: History Taking and Professional Behavior in Clinical Audiology.

Cognitive, psychomotor and affective components of a basic audiological assessment, with a focus on psychomotor skills. These include verbal and non-verbal communication skills necessary for history taking and explaining results to the patient, proper conduct in a clinical setting and ethical issues. *Credit: 1 unit (0.25 unit lec, 0.75 unit lab)* 

#### CAUD 211: Assessment Strategies I.

Basic audiometry techniques, providing both cognitive and psychomotor components in pure tone audiometry (PTA), speech reception/discrimination tests (ST), acoustic impedance testing, and pediatric audiometry. Includes supervised handson clinical application.

Credit: 4 units (1 unit lec, 3 units lab)

#### CAUD 212: Assessment Strategies II.

Theoretical concepts of objective hearing assessment strategies such as auditory evoked potentials and otoacoustic emissions. An overview of vestibular assessment techniques, central auditory dysfunction and site of lesion testing. Includes supervised clinical application.

Credit: 4 units (1.5 units lec, 2.5 units lab) Prerequisite: CAUD 201

#### CAUD 230: Hearing Amplification.

Principles of hearing aid fitting and their application. Includes different hearing aid technologies, types and models, selection of appropriate hearing aids, ear mould making, fitting procedures and issues, as well as post-fitting evaluation and trouble-shooting.

Credit: 2 units (1.5 units lec, 0.5 unit lab) Prerequisite: CAUD 211

#### CAUD 234: Aural Rehabilitation in Adults.

Theoretical foundations and approaches in aural rehabilitation of adults with hearing impairment. *Credit: 1 unit (0.5 unit lec, 0.5 unit lab) Prerequisites: SP 232, CAUD 230* 

#### CAUD 236: Hearing Conversation.

Issues related to noise and hearing conservation. Credit: 1 unit (lec) Prerequisites: CAUD 201, CAUD 211

#### CAUD 251: Program Development in Audiology.

Development and evaluation of audiologic programs. Credit: 2 units (1.5 units lec, 0.5 unit lab)

#### CAUD 280: Clinical Practicum.

Application and integration of all clinical courses. Credit: 4 units (lab) Prerequisites: CAUD 211, CAUD 212

#### CAUD 296: Special Project.

Application of theoretical knowledge and skills in the student's area of interest in teaching research or program development. *Credit: 4 units (lab) Prerequisites: RS 203 or RS 204 or CAUD 299 or CAUD 251 and at least 50% of core courses* 

#### CAUD 299: Introduction to Research in Audiology.

Review of research designs and methods as applied in audiology.

Credit: 2 units (1.5 units lec, 0.5 unit lab)

## **RS 203: Education for Rehabilitation Science** (Classroom Teaching).

A study of learning theories and principles, instructional activities and methods of student evaluation relevant to the health professions in the classroom setting. Opportunity to observe, prepare for and practice classroom teaching. *Credit: 2 units (1 lec, 1 lab)* 

## **RS 204: Education for Rehabilitation Science** (Clinical Teaching).

A study of various instructional activities and methods of student evaluation appropriate to the clinical setting of therapists. Opportunity to observe, prepare for and practice clinical teaching.

Credit: 2 units (1 lec, 1 lab)

#### SP 232: Aural Rehabilitation in Children.

Theoretical foundation, historical background and different approaches to aural rehabilitation in children. Includes special management strategies in the areas of speech and language development for hearing impaired children. Special emphasis on development and remedial instructions for pre-school and school aged child.

Credit: 3 units (1 unit lec, 2 units lab)

## MASTER OF SCIENCE IN HEALTH INFORMATICS

Health Informatics covers the organization and management of information in the areas of patient care, research and administration. It focuses on the structuring of health data and knowledge to support data analysis and decision-making in medicine and health care with the use of information systems. It covers a wide spectrum of applications, from computer-based patient records in general practices and hospitals to electronic communication between health care providers, from signal analysis and image processing to decisions support systems. Effective delivery of healthcare requires correct decisionmaking based on proper management of health information.

This is a joint offering of the College of Medicine- Medical Informatics Unit (for Medical Informatics Track) and the College of Arts and Sciences (for the Bioinformatics Track).

#### Objectives

The proposed training program is designed to provide prospective leaders in Health Informatics with competencies in Health Informatics such that at the end of the program, the students will be able to:

- 1. apply informatics concepts, skills and principles for the efficient solution of health informatics problems;
- 2. provide perspective in health informatics that can be used in the critical study of all levels of health information systems;
- 3. plan, undertake, evaluate and monitor health informatics research projects; and
- 4. provide technical services to health professionals and agencies for both public and private sectors concerned with management of information which could be the bases for health policy for formulation, thereby providing leadership and excellence in health informatics.

#### Admission Requirements

To be admitted to the program, applicants must fulfill general admission requirements of the UP Manila Graduate Office.

**For Bioinformatics Track:** have at least a baccalaureate degree in the sciences with:

- a. basic training in Biochemistry or molecular biology. Otherwise, prospective students may opt to take the undergraduate equivalent (Chem 32 or Chem 40 / Biochem 14);
- a passing mark in a validating examination in Computer Programming and Data Structures. Prospective students however, may opt to take its undergraduate equivalent (CS 11, CS 123) in the BS Computer Science Program of UP Manila;

#### For Medical Informatics Track:

In addition to the above requirements, applicants must be a health practitioner (MD, RN, DDM, med tech etc.); have good scholastic ability; have the capability for self-directed learning as determined by an interview.

#### Additional requirements for foreign applicants:

- 1. affidavit of support or certificate of financial capability;
- 2. TOEFL score of at least 500 (if English is not the medium of instruction in the country of origin);
- 3. photocopy of the passport (original to be presented for verification);
- 4. student visa to be issued by the Philippine government.

#### Graduation Requirements

For the degree of MS Health Informatics (both tracks) students should:

- 1. be in residence for at least one full academic year immediately prior to the awarding of the degree;
- have completed a minimum of 33 units of formal courses (11 units of core courses, 13 units of major and 3 elective courses (6 – 9 units);
- 3. have a weighted average of 2.00 or better in the core and major/required courses and an overall weighted average of 2.0 or better, provided there is no grade of 5.00 in any of the courses;
- 4. have successfully defended a Master's thesis and submitted the required number of bound copies.

#### **Medical Informatics & Bioinformatics**

| Curricular Program Requirements | Units |
|---------------------------------|-------|
| Major                           | 13    |
| Core                            | 11    |
| Electives/Cognates              | 3     |
| Thesis                          | 6     |
| TOTAL                           | 33    |

## MAJOR

| Course Title                                   | Units |
|--|-------|
| HI 201: Health Informatics                     | 3     |
| HI 210: Systems Analysis & Design              | 3     |
| HI 271: Ethical, Legal and Social              | 1     |
| Issues in Health Informatics                   |       |
| HI 298: Sem. in Health Informatics             | 1     |
| HI 299: Research Methods in Health Informatics | 3     |

#### **Track 1: Medical Informatics**

#### Medical Informatics Unit

Medical informatics deals with organization and management of information in support of patient care, education, research and administration. It covers a wide area of the health informatics discipline from the fetus to the geriatric patient. It involves the study of information systems in clinics, laboratories, health centers, hospitals and other health facilities involved in the management of patient data.

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#### MAJOR

| Course Title  | Units |
|---|-------|
| MI 207: Organization & Management                   | 2     |
| in Health Informatics                               |       |
| MI 216: Data Modeling and Design for Health         | 2     |
| MI 224: Coding, Classification, and                 | 2     |
| Terminology in Medicine                             |       |
| MI 227: Clinical and Laboratory Information Systems | 3     |
| MI 238: Applications of Internet Technologies       | 2     |
| in Health Care                                      |       |
| MI 239: Primary Health Care Informatics             | 2     |
|   |       |
| ELECTIVES/COGNATES                                  |       |
| Course Title  | Units |
| MI 219: Data Warehousing in Health Care             | 2     |
| III 250: Ducinage Acharacte of Health Information   | 2     |

| HI 250: Business Aspects of Health Informatics | 2 |
|--|---|
| MI 295: Special Topics in Medical Informatics  | 3 |
| BNF 260: Bioinformatics in Clinical Practice   | 2 |
| BNF 295: Special Topics in Bioinformatics      | 3 |
|  |   |

#### **MI 300: Master's Thesis**

6 units

#### **Track 2: Bioinformatics**

#### College of Arts and Science, UP Manila

Bioinformatics, generally speaking, is the creation and development of advanced information and computational technologies for problems in molecular biology. It deals with methods for storing, retrieving and analyzing biomedical data, such as nucleic acid (DNA/RNA) and protein sequences, structures, functions, pathways genetic interactions, population modeling and numerical simulations. There is significant industrial interest in bioinformatics currently because of the information being produced by the genome sequencing projects and the need to harness this for medical diagnostic and therapeutic uses.

#### **MAJOR**

| Course Title                                 | Units |
|--|-------|
| BNF 201: Fundamentals of Bioinformatics      | 2     |
| BNF 216: Data Modeling and Design            | 2     |
| for Bioinformatics                           |       |
| BNF 231: Architecture, Dynamics &            | 3     |
| Structure of Nucleic Acids and Proteins      |       |
| BNF 240: Representations and                 | 3     |
| Algorithms in Bioinformatics                 |       |
| BNF 241: Stochastic Models in Bioinformatics | 3     |
|  |       |

#### **ELECTIVES/COGNATES**

| Course Title  | Units   |
|---|---------|
| BNF 242: Decision Theory in Bioinformatics          | 2       |
| HI 250: Business Aspects of Health Informatics      | 2       |
| BNF 260: Bioinformatics in Clinical Practice        | 2       |
| BNF 232: Macromolecular Modeling                    | 2       |
| and Chemoinformatics                                |         |
| BNF 233: Analytical Methods in Bioinformatics       | 2       |
| BNF 234: Computational Systems Biology              | 2       |
| BNF 295: Special Topics in Bioinformatics           | 3       |
| MI 227: Clinical and Laboratory Information Systems | 3       |
| MI 238: Internet Technologies in Medical Practice   | 2       |
| MI 295: Special Topics in Medical Informatics       | 3       |
| BNF 300: Master's Thesis                            | 6 units |

#### **COURSES OFFERED**

#### HI 201: Health Informatics.

Spectrum of Health informatics domains in the Philippine healthcare situation. Credit: 3 units *Prerequisite: none* 

#### HI 210: System Analysis and Design.

Interactions between the components of a health information system: hardware, data, network, and people.

Credit: 3 units Prerequisite: HI 201

#### HI 250: Business Aspects of Health Informatics.

Business models, management and marketing of health information systems. Credit: 2 units

Prerequisite: consent of faculty

#### HI 271: Ethical, Legal and Social Issues in Health Informatics.

Ethical, Legal and Social Issues in Health Informatics. Credit: 1 unit *Prerequisite: none* 

#### HI 298: Seminar in Health Informatics.

Credit: 1 unit Prerequisite: HI 201

#### HI 299: Research Methods in Health.

Concepts, principles of research in health information management. Credit: 2 units Prerequisite: HI 201

#### MI 207: Organization and Management in Health Informatics.

Management and leadership in health information systems. Credit: 2 units Prerequisite: HI 210

#### MI 216: Data Modeling and Design for Health.

Practical course in transforming clinical concepts into actual data models and into databases. *Credit: 2 units* 

Prerequisite: none

#### MI 219: Data Warehousing in Health Care.

Specialized modeling techniques for the development and management of large healthcare databases. Credit: 2 units Prerequisite: consent of faculty

## MI 224: Coding, Classification, and Terminology in Medicine.

Systematic organization of health concepts with focus on standards and their actual implementation.

Credit: 2 units Prerequisite: HI 210

#### MI 227: Clinical and Laboratory Information Systems.

Design and development of clinical and laboratory information systems appropriate in the local setting. *Credit: 3 units Prerequisites: HI 210, MI 224 or consent of faculty* 

## MI 238: Applications of Internet Technologies in Health Care.

Application of existing and emerging web-based technologies in health care. *Credit: 2 units* 

Prerequisite: HI 210

#### MI 239: Primary Health Care Informatics.

Appropriate technologies and methods in a community-based health information systems. *Credit: 2 units Prerequisite: consent of faculty* 

#### MI 295: Special Topics in Medical Informatics.

Credit: 3 units Prerequisite: consent of faculty

**MI 300: Master's Thesis.** *Credit: 6 units* 

**BNF 201: Fundamentals of Bioinformatics.** *Credit: 2 units* 

### BNF 216: Data Modeling and Design for Bioinformatics.

Concepts, design and management, of Bioinformatics databases. Credit: 2 units Prerequisite: none

## BNF 231: Architecture, Dynamics and Structure of Nucleic Acids and Proteins.

Nucleic acids and protein structure, their Physio-chemical properties.

Introduction to bioengineering and other related science and technologies as applied in Orthopedics. Included are introduction to basis biomechanics, biomaterials, gait analysis, prosthesis and Orthotics.

Credit: 3 units Prerequisite: BNF 201

**BNF232: Macromolecular Modeling and Chemoinformatics.** *Credit: 2 units* 

**BNF 233: Analytical Methods in Bioinformatics.** *Credit: 2 units* 

**BNF 234: Computational Systems Biology.** *Credit: 2 units* 

**BNF 240: Representations and Algorithms in Bioinformatics.** *Credit: 3 units* 

**BNF 241: Stochastic Models in Bioinformatics.** *Credit: 3 units* 

**BNF 242: Decision Theory in Bioinformatics.** *Credit: 2 units* 

**BNF 260: Bioinformatics in Clinical Practice.** *Credit: 2 units* 

**BNF 295: Special Topics in Bioinformatics.** *Credit: 3 units* 

#### **BNF 300: Master's Thesis.** *Credit: 6 units*

#### MASTER OF SCIENCE IN BIOETHICS

## Joint Program of the COLLEGE OF MEDICINE and COLLEGE OF SOCIAL SCIENCES & PHILOSOPHY, UP DILIMAN.

#### Social Medicine Unit, CSSP UP Diliman

The Master of Science in Bioethics is a two-year program, administered jointly by the Department of Philosophy, CSSP, UP Diliman and the College of Medicine, UP Manila. It is geared towards developing competence in research and instruction in the ethical and technical aspects of health care, medicine, the biological sciences, and biotechnology. As distinguished from the Diploma Program, it is oriented towards research and is intended to provide students with the capability to make original contributions to the field of bioethics. The program is a response to the growing demand from institutions here and abroad for professionals with the following competences: (1) clear identification of "bioethical issues" as distinct from "technical issues"; (2) analytic, critical and scholarly reflection on personal, professional and social values; (3) bioethics consultation and academic instruction in biomedical institutions; and (4) ethics-informed policy-making.

With this program, the University of the Philippines can develop a bioethics-training hub for professionals in Asia and assert regional leadership in this field.

#### Courses

All these courses are offered in either UP Diliman or UP Manila

#### **MAJOR**

| Course Title                          | Units |
|---------------------------------------|-------|
| Bioethics 201: Foundation and         | 3     |
| Approaches to Bioethics               |       |
| Bioethics 211: Social Justice,        | 3     |
| Human Rights and Ethics               |       |
| Bioethics 231: Moral Reasoning &      | 3     |
| Analytical Techniques                 |       |
| Bioethics 291: Research and Ethics    | 3     |
| Bioethics 292: Research Ethics Review | 3     |

*Note: Bioethics courses already offered in the Diploma in Bioethics program* 

| Course Title                                 | Units |
|--|-------|
| Bioethics 212: Law and Bioethics             | 3     |
| Bioethics 221: Social, Political and         | 3     |
| Policy Contexts of Bioethics in              |       |
| Asia and the Pacific                         |       |
| Bioethics 224: Bioethics and                 | 3     |
| International Health                         |       |
| Bioethics 280: Bioethics Practicum           | 3     |
| Bioethics 202: Ethical Theories in Bioethics | 3     |
| Bioethics 222: Culture & Bioethics           | 3     |
| Bioethics 223: Gender & Bioethics            | 3     |
| Bioethics 298: Special Topics in Bioethics   | 3     |

Note: courses already offered in the Diploma in Bioethics program.

#### **Elective Courses**

Note: Courses offered in the Clinical Epidemiology (CE) program, Master of Arts in Sociology program and Master of Arts in Anthropology program.

| Course Title                             | Units |
|--|-------|
| CE 214: Research Organization Management | 2     |
| Socio 215: Medical Sociology             | 3     |
| Anthro 267: Medical Anthropology         | 3     |
| Anthro 297: Seminar in Research          | 3     |
| Design and Methods                       |       |

#### Elective Course on Research Methodology

Note: Courses offered in the Clinical Epidemiology (CE) program, Master of Arts in Sociology program, Master of Arts in Psychology program and Master in Population Studies.

| Course Title  | Units |
|---|-------|
| CE 211: Fundamentals of Clinical Epidemiology       | 2     |
| CE 212: Basic Clinical Research Methodology         | 2     |
| Socio 281: Quantitative Techniques                  | 3     |
| in Social Research                                  |       |
| Socio 282: Qualitative Techniques                   | 3     |
| in Social Research                                  |       |
| Psych 207: Basic Course in Psychological Statistics | 3     |
| Psych 208: Intro. to Psychological                  |       |
| Research Methods                                    | 3     |
| Demo 210: Theory and Methods of Demography          | 3     |
| Demo 299: Research Methods in Demography            | 3     |
|   |       |

#### <u>Thesis</u>

| Course Title                     | Units |
|----------------------------------|-------|
| Bioethics 300.1: Master's Thesis | 3     |
| Bioethics 300.2: Master's Thesis | 3     |

#### **COURSES OFFERED**

#### **Bioethics 201: Foundation and Approaches to Bioethics.**

Approaches to moral problems in health care and biomedical research.

Credit: 3 units

### **Bioethics 202: Ethical Theories in Bioethics.**

Philosophical theories and ethical concepts in relation to biomedical issues. *Credit: 3 units* 

#### **Bioethics 211: Social Justice, Rights and Ethics.**

Theories of justice related to bioethical issues and guidelines. *Credit: 3 units* 

#### **Bioethics 212: Law and Bioethics.**

Credit: 3 units

### **Bioethics 221: Social, Political and Policy.**

Contexts of Bioethics in Asia and the Pacific. *Credit: 3 units* 

#### **Bioethics 222: Culture and Bioethics.**

An anthropological and sociohistorical survey of ethical concepts in various cultures. *Credit: 3 units* 

#### **Bioethics 223: Gender and Bioethics.**

Application of gender theories, including feminist approaches, to bioethics. *Credit: 3 units* 

#### **Bioethics 224: Bioethics and International Health.**

Bioethical issues in the development and implementation of international health programs, priorities, and policies. *Credit: 3 units* 

#### **Bioethics 231: Moral Reasoning and Analytic Techniques.**

Moral reasoning and analytical methods applied in clinical research situations.

Credit: 3 units

## **Bioethics 280: Bioethics Practicum.**

Applied experience in ethics consultation, research ethics review, or health policy development and administration. *Credit: 3 units* 

## **Bioethics 291: Research and Ethics.**

A survey of qualitative methods used in biomedical and social science research with special emphasis on the ethical implications of methodologies involved. *Credit: 3 units* 

## **Bioethics 292: Research Ethics Review.**

Biomedical and social science research ethics review and ethical analysis of guidelines and covenants. *Credit: 3 units* 

### **Bioethics 298: Special Topics in Bioethics.**

Credit: 3 units Prerequisites: Bioethics 201, 211 and 231

## **Bioethics 300.1: Master's Thesis.**

Credit: 3 units Prerequisites: Completion of Bioethics 201, 211 & 231

### **Bioethics 300.2: Master's Thesis.**

Credit: 3 units Prerequisites: At least 75% of coursework has been completed and satisfactory completion of Bioethics 300.1.

#### Anthro 267: Medical Anthropology.

Credit: 3 units Prerequisite: None

### Anthro 297: Seminar in Research Design Methods.

Credit: 3 units Prerequisite: None

#### **CE 211: Fundamentals of Clinical Epidemiology.**

Introduction to scientifically appropriate ways of identifying and solving problems in human biology, clinical medicine and health care.

Credit: 2 units (48 hrs.) (16 hrs. of lec, 32 hrs. of lab)

### CE 212: Basic Clinical Research Methodology.

General strategies of health research including design. Credit: 2 units (48 hrs.) (16 hrs. lec, 32 hrs. lab) Prerequisite: CE 211

#### **CE 214: Research Organization and Management.**

Concepts and principles of organization and management applied to research programs and projects. *Credit: 2 units (48 hrs.) (16 hrs. lec, 32 hrs. lab)* 

### Demography 210: Theory and Methods of Demography.

Credit: 3 units Prerequisite: None

**Demography 299: Research Methods in Demography.** Credit: 3 units Prerequisite: None

**Psych 207: Basic Course in Psychological Statistics.** *Credit: 3 units* 

# Psych 208: Introduction to Psychological Research Methods.

Credit: 3 units

**Socio 281: Quantitative Techniques in Social Research.** Credit: 3 units Prerequisite: None

**Socio 282: Qualitative Techniques in Social Research.** *Credit: 3 units Prerequisite: None* 

## Joint Program Offering of the UP MANILA COLLEGE OF MEDICINE & the UP DILIMAN COLLEGE OF PHILOSOPHY.

The Diploma in Bioethics offers professionals the opportunity to grapple, in a systematic and comprehensive manner, the ethical issues arising from medicine and biomedical research. The multi-disciplinary field of bioethics covers a wide-range of moral issues arising from cloning, stem cell research, organ donation and transplantation, death and dying, patient-doctor relationship, privacy and confidentiality, informed consent, euthanasia and suicide, research integrity, abortion, health resource allocation, HIV/AIDS, human experimentation, standards of care, multi-center research and clinical trials.

This is a joint offering of the College of Medicine through the Social Medicine Unit and UP Diliman College of Social Sciences and Philosophy.

#### Objectives

The program aims to develop a community of biomedical and social scientists, health professionals and other health care providers, policy makers, philosophers as well as other interested students with sufficient skills and relevant knowledge of ethical considerations, concepts and methods in health education, health care, health policy and research involving human participants. It provides opportunities for students to acquire adequate foundational knowledge in ethical principles, guidelines and theories; develop and enhance capabilities and competencies for critical analysis and integration and develop skills in bioethics research, review, consultation, teaching, advocacy and networking.

Specifically, the Diploma Program aims to prepare professionals to:

- 1. provide bioethics consultation to biomedical institution;
- 2. enrich instruction and research in philosophy, the social sciences and other academic fields; and
- 3. become competent and independent members of ethics committees that review research involving human subject.

#### Enrolment

Enrollment in the program will be in UP Manila. On the first semester, classes will be in UP Diliman; on the second semester, in UP Manila.

| Curricular Program Requirements | Units |
|---------------------------------|-------|
| Major                           | 9     |
| Core                            | 9     |
| Electives/Cognates              | 6     |
| TOTAL                           | 24    |

Major Courses (12 units) and elective courses/cognates (4 units):

Depending on the areas of specialization or tracking, of the student, 12 units of major courses (at least 10 units in 300 series) and 4 units of cognate/elective courses in the 300 series of the course maybe chosen from those listed under Molecular Biology, Physiology, Pharmacology of the College of Medicine, and the Departments of Medical Microbiology, and Parasitology of the College of Public Health.

#### MAJOR (Choose any 3 from the courses below)

| Course Title  | Units |
|---|-------|
| Bioethics 212: Law and Bioethics                      | 3     |
| Bioethics 221: Social, Political, and Policy Contexts |       |
| of Bioethics in Asia and the Pacific                  | 3     |
| Bioethics 224: Bioethics and                          |       |
| International Health                                  | 3     |
| Bioethics 280: Bioethics Practicum                    | 3     |
| Bioethics 291: Research and Ethics                    | 3     |
| Bioethics 292: Research Ethics Review                 | 3     |
|   |       |
| CORE  |       |
| Course Title  | Units |
| Bioethics 201: Foundation and                         | 3     |
| Approaches to Bioethics                               |       |
| Bioethics 211: Social Justice, Rights and Ethics      | 3     |

#### ELECTIVES/COGNATES

Analytic Techniques

(Choose any 2 from the courses below)

Bioethics 231: Moral Reasoning and

| Course Title                                 | Units |
|--|-------|
| Bioethics 202: Ethical Theories in Bioethics | 3     |
| Bioethics 222: Culture and Bioethics         | 3     |
| Bioethics 223: Gender and Bioethics          | 3     |

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