

## Course Description

**Micro 201 Public Health Microbiology.** The biology of pathogenic microbes (bacteria, rickettsiae, viruses and fungi); principles of parasitism; host-microbe interactions.

**Micro 202 Immunology.** Immunochemical study of antigens, immunologic mediators and methods of investigating immune response.

**Micro 203 Applied Bacteriology.** Laboratory methods employed in the diagnosis of bacterial diseases.

**Micro 205 Virology.** Physico-chemical properties and molecular biology of animal viruses including bacteriophages.

**Micro 206 Medical Microbiology.** The morphological, cultural and other characteristics of fungi pathogenic to man.

**Micro 207 Microbial Physiology.** Growth, metabolism, mutation and enzyme activities of bacteria and fungi.

**Micro 208 Immunology of Microbial Infections.** Immunologic principles applied to specific problems in microbial diseases.

**Micro 209 Applied Virology.** Advanced techniques in virology and tissue culture.

**Micro 210 Microbial Zoonoses.** Biology and immunology of selected bacterial, viral and fungal zoonoses.

**Micro 211 Preparation of Vaccines and Immune Serums.** Production and standardization of selected vaccines and immune serums.

**Micro 212 Microbial Pathogens in Water and Foods.** Isolation and identification of microbial pathogens in water and foods.

**Micro 214 Advanced Mycology.** Biotechnological methods used in research and development of health products and diagnostic reagents in medical mycology.

**Epi 201 Principles of Epidemiology.** Ecology of human diseases and epidemiologic methods.

**Biostat 202 Fundamentals of Biostatistics II.** Further treatment of frequency distributions and sampling variation; least squares, correlation, linear and curvilinear regression.

**Biostat 206 Research Methods I.** Principles of field investigation; sampling methods in the study of health problems of human populations

**Biostat 201 Fundamentals of Biostatistics I.** Collection, presentation and elementary analysis of data.

**OH 201 Principles and Methods of Occupational Health.** The place and scope of preventive medicine in industry; the relationship of occupation to disease and the place of physiological hygiene in public health.

## Course Description

**OH 203 Industrial Toxicology.** Entry, action and elimination or detoxification of toxic substances. Design of toxicity experiments, dose and effect relationships.

**OH 208 Occupational Diseases.** Clinical manifestations, differential diagnosis, prevention and treatment.

**PH 201 Man, Health and the Environment I.** The dynamic interrelationships between man and the environment as these affect health

**Para 204 Medical Entomology.** Arthropods of medical and public health importance in the Philippines

## Faculty Profile

**Veronica F. Chan, PhD**  
Professor Emeritus

**Nina G. Barzaga, MD, PhD**  
Professor

**Adelwisa R. Ortega, MD, MS Micro.**  
Professor

**Teresita S. de Guzman, MSPH**  
Associate Professor

**Alice C. Bungay, DVM, MVS**  
Assistant Professor

**Marohren T. Altura, Msc Tropmed**  
Assistant Professor

**Lilen C. Sarol, PhD**  
Assistant Professor

**Lolita L. Cavinta, MSPH**  
Assistant Professor

**Maria Margarita M. Lota, MD**  
Assistant Professor

### For inquiries write to:

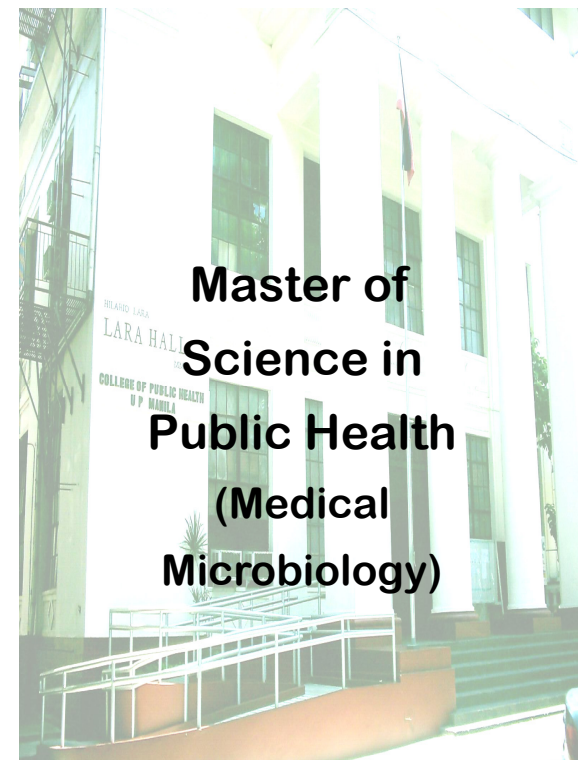
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# College of Public Health

University of the Philippines Manila  
The Health Sciences Center



**SEAMEO-TROPMED**  
Regional Centre for Public Health,  
Hospital Administration,  
Environmental and Occupational Health

## Rationale and Objectives

Microbiology has been and will continue to be one of the mainstays in the creation of opportunities for human progress and for the promotion of new knowledge to enhance the quality of life. It has numerous application in health and disease and in the development of new technologies in the various fields of microbiology like food and industrial microbiology, immunology, medical mycology, diagnostic microbiology, etc.

The MSPH (Medical Microbiology) program is intended to prepare students and professionals for various careers and opportunities in the different fields of microbiology. Candidates are free to choose any of the available areas of specialization in microbiology (Applied Bacteriology, Virology, Mycology, and Immunology).

At the end of the MSPH (Medical Microbiology) program the student should be able to:

- acquire a good working knowledge on the principles and methods of Bacteriology, Virology, Mycology, and Immunology;
- plan, set up and manage a microbiology laboratory;
- conduct research projects related to any of the various areas of microbiology;
- apply the principles of microbiology and immunology in the promotion and maintenance of health and in the prevention, treatment and control of communicable diseases.

## General Information

- The academic year is divided into 2 semesters of 16 weeks each and a 6 week summer session
  - First semester : June - October
  - Second semester: November - March
  - Summer: April - May
- The medium of instruction is English
- The usual academic load of full - time students is 12 - 15 units
- The tuition fee is P 990.00 per unit and the miscellaneous fees amount to approximately P 1,360 per semester
- International students must pay an Educational Development Fund of US \$ 500.00 (or US \$ 100.00 for residency) per semester.
- Application Fee : P300.00 for Filipinos  
US \$ 30.00 for international students

\*Fees subject to change without prior notice

## Admission Requirements

1. Must fulfill the general admission requirements of the National Graduate Office of UP Manila
2. Good scholastic record from any recognized institution of higher learning.
3. Must be graduates of approved schools of medicine and/or allied professions or have at least a baccalaureate degree in the biological sciences.
4. Approval of the applicant's qualification for graduate work in Medical Microbiology by the faculty of the Department of Medical Microbiology.

## Graduation Requirements

1. Residence of at least one full academic year immediately prior to granting of the degree;
2. Completion of a minimum of 34 units of formal courses (6 units of core courses, 10 units of major courses, 8 units of electives, 4 units of cognates and 6 units of thesis);
3. General weighted average of "2.00" or better in the major courses and in all courses taken provided there is no grade of "5.0" in any subject;
4. Satisfactory defense, completion and submission of bound copies of a masters' thesis
5. Passing the comprehensive examination

## Residence Requirements & Time Limit

- minimum residence required : 2 semesters and 1 summer
- maximum residence rule (MRR) : 5 calendar years including official leaves of absence
- If the MRR is exceeded, further extension of not more than 1 year shall be allowed subject to the recommendation of the MSPH Program Committee and approval of the Chancellor

## The Curriculum

| <b>Core Courses</b>                |   | <b>6</b>  | <b>Units</b> |
|------------------------------------|---|-----------|--------------|
| Biostat 201                        | Fundamentals of Biostatistics I               |           | 3            |
| Epi 201                            | Principles of Epidemiology                    |           | 3            |
| <b>Major Courses</b>               |   | <b>10</b> |              |
| <b><u>Applied Bacteriology</u></b> |   |           |              |
| Micro 201                          | Public Health Microbiology                    |           | 2            |
| Micro 203                          | Applied Bacteriology                          |           | 2            |
| Micro 207                          | Microbial Physiology                          |           | 3            |
| Micro 212                          | Microbial Pathogens in water and Food         |           | 2            |
| Micro 297                          | Seminars in Microbiology                      |           | 1            |
| <b><u>Immunology</u></b>           |   |           |              |
| Micro 201                          | Public Health Microbiology                    |           | 2            |
| Micro 202                          | Immunology                                    |           | 3            |
| Micro 208                          | Immunology of Microbial Infections            |           | 2            |
| Micro 211                          | Preparation of Vaccines and Immune Serum      |           | 2            |
| Micro 297                          | Seminars in Microbiology                      |           | 1            |
| <b><u>Mycology</u></b>             |   |           |              |
| Micro 201                          | Public Health Microbiology                    |           | 2            |
| Micro 206                          | Medical Mycology                              |           | 2            |
| Micro 207                          | Microbial Physiology                          |           | 3            |
| Micro 214                          | Advanced Mycology                             |           | 2            |
| Micro 297                          | Seminars in Microbiology                      |           | 1            |
| <b><u>Virology</u></b>             |   |           |              |
| Micro 201                          | Public Health Microbiology                    |           | 2            |
| Micro 205                          | Virology                                      |           | 2            |
| Micro 207                          | Microbial Physiology                          |           | 3            |
| Micro 209                          | Applied Virology                              |           | 2            |
| Micro 297                          | Seminars in Microbiology                      |           | 1            |
| <b>Electives<sup>a</sup></b>       |   | <b>8</b>  |              |
| Micro 210                          | Microbial Zoonoses                            |           | 2            |
| <b>Cognates<sup>b</sup>:</b>       |   | <b>4</b>  |              |
| Biostat 202                        | Fundamentals of Biostatistics II              |           | 2            |
| Biostat 206                        | Research Methods I                            |           | 2            |
| PH 201                             | Man, Health and Environment I                 |           | 2            |
| PH 202                             | Man, Health and Environment II                |           | 2            |
| Para 204                           | Medical Entomology                            |           | 2            |
| OH 201                             | Principles and Methods of Occupational Health |           | 2            |
| OH 203                             | Industrial Toxicology                         |           | 2            |
| OH 208                             | Occupational Diseases                         |           | 3            |
| <b>Thesis</b>                      |   | <b>6</b>  |              |
| Micro 300                          | Masters' Thesis                               |           | 6            |
| <b>TOTAL</b>                       |   | <b>34</b> |              |

a - Major courses of other areas of specialization may also be taken as elective

b - Any course pertinent to the major area as determined by the program adviser may be taken as cognates