

## 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 responses.

**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 Mycology.** 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 Serum.** Production and standardization of selected vaccines and immune serum.

**Micro 212 Microbial Pathogens in Water and Food.** Isolation and identification of microbial pathogens in water and food.

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

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

**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.

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

**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.

**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.

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

**Para 207 Immunology of Parasitic Infections.** Immunologic principles and techniques applied to parasitic infections.

## Faculty Profile

### DEPARTMENT OF MEDICAL MICROBIOLOGY

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

Professor  
**Sharon Yvette Angelina M. Villanueva, MMSc, PhD,  
Rmicro, DPAM**

Associate Professor  
**Maria Margarita M. Lota, MD, FPPS  
Evalyn A. Roxas, MD, MPH, FPCP, FPSMID  
Sheriah Laine M. de Paz-Silava, MD, PhD  
Fresthel Monica M. Climacosa, MD, PhD**

Assistant Professor  
**Marohren C. Tobias-Altura, RMT, DMM, MSCTM  
Azita Raquel G. Lacuna, RMT, MSc, DRDM  
Geraldine B. Dayrit, RMT, MSc, DRDM**

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

**THE DIRECTOR  
National Graduate Office for the Health Sciences**

Tel Nos.: (+632)8526-5870, (+632)8523-1495

Telefax: 8523-1498

Email: [upm-ngohs@up.edu.ph](mailto:upm-ngohs@up.edu.ph), [ngohs@post.upm.edu.ph](mailto:ngohs@post.upm.edu.ph)

Website: [ngohs.upm.edu.ph](http://ngohs.upm.edu.ph)

*Further inquiries may be sent to:*

**THE MSPH (MEDICAL MICROBIOLOGY)  
PROGRAM COORDINATOR  
College of Public Health**

**University of the Philippines Manila  
625 Pedro Gil St., Ermita, Manila 1000 or  
P.O. Box EA-460, Manila 1000 Philippines  
Tel. No.: (+632)8525-5874; Fax No.: (+632)8521-1394**

COLLEGE OF PUBLIC HEALTH  
University of the Philippines Manila  
The Health Sciences Center



**Master of Science in  
Public Health  
(Medical Microbiology)**

**SEAMEO TROPED**  
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 applications 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 (Bacteriology, Virology, and Mycology).

At the end of the program, the graduates should be able to:

1. Design, implement, and evaluate public health programs;
2. Design, implement, and use research findings for policy development and institution building;
3. Employ statistical techniques in analyzing and interpreting public health and medical data;
4. Implement appropriate health promotion and education strategies in addressing public health issues;
5. Practice inter-professional collaboration in public health service while adhering to professional, social, and ethical standards
6. Provide technical services related to microbiology;
7. Select appropriate laboratory procedures for the determination of microbiological diseases;
8. Effectively use Filipino and English communication skills in both oral and written form; and
9. Exemplify positive Filipino values (e.g. *damayan*, *bayanihan*, hospitality, compassion) in the conduct of public health practice.

## General Information

- The academic year is divided into 2 semesters of 16 weeks each, and a short term with only 6 weeks
  - ☐ First semester : August - December
  - ☐ Second semester: January - May
  - ☐ Short term: June - July
- The medium of instruction is English.
- The usual academic load of full - time students is 12 - 15 units.
- The tuition fee is Php 990.00 per unit and the miscellaneous fees amount to approximately Php 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 : Php 300.00 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. A student without a bachelor's degree but whose undergraduate preparation is substantially equivalent to the requirements of a bachelor's degree in the University of the Philippines may be admitted upon written recommendation of the Program Committee and approval of the Dean, duly recorded by the University Registrar.

## Graduation Requirements

1. Residence of at least on full academic year immediately prior to granting of the degree
2. Completion of a minimum of 40 units (6 units of core, 12 units of major, 6 units of other required courses, 10 units of electives/cognates)
3. General Weighted Average of "2.00" or better in major courses and in all courses taken provided there is no grade of "5.0" in any subject
4. Satisfactory completion and submission of 6 bound copies of a masters' thesis
5. Submission of publishable form of the masters' thesis

## Residence Requirements and Time Limit

- Minimum residence required: 2 semesters and 1 short term
- 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 MSPH Program Committee and approval of the Chancellor

## The Curriculum

Core Courses		8	Units
Biostat 201	Fundamentals of Biostatistics I		3
Epi 201	Principles of Epidemiology		3
Biostat 206	Research Methods I		2
<b>Major Courses</b>		<b>16</b>	
<u>For all tracks</u>			
Micro 202	Immunology		3
Micro 203	Applied Bacteriology		2
Micro 205	Virology		2
Micro 206	Medical Mycology		2
Micro 207	Microbial Physiology		3
Micro 208	Immunology of Microbial Infections		2
Micro 297.1	Seminars in Microbiology		1
Micro 297.2	Seminars in Microbiology		1
<b>Minor Courses</b>		<b>6</b>	
<u>Bacteriology</u>			
Micro 210	Microbial Zoonoses		2
Micro 212	Microbial Pathogens in Water and Food		2
Micro 299	Special Studies and Research		2
<u>Mycology</u>			
Micro 210	Microbial Zoonoses		2
Micro 214	Advanced Mycology		2
Micro 299	Special Studies and Research		2
<u>Virology</u>			
Micro 209	Applied Virology		2
Micro 211	Preparation of Vaccines and Immune Serum		2
Micro 299	Special Studies and Research		2
<b>Cognate Courses</b>		<b>4</b>	
Biostat 202	Fundamentals of Biostatistics II		2
Para 204	Medical Entomology		2
Para 207	Immunology of Parasitic Infections		2
OH 201	Principles and Methods of Occupational Health		2
OH 203	Industrial Toxicology		2
OH 208	Occupational Diseases		2
<b>Thesis</b>		<b>6</b>	
Micro 300.1	Master's Thesis		6
Micro 300.2			
<b>TOTAL</b>		<b>40 units</b>	