

GRADUATE SCHOOL MISSION STATEMENT

We are a Catholic institution dedicated to advancing the frontiers of knowledge in the theoretical and applied fields through quality graduate education that is comprehensive and responsive to the needs of society. We are committed to the formation of scholars and high level professionals who are ethical, competent, compassionate and committed to the service of the Church, the Nation and the Global Community.

GRADUATE SCHOOL VISION STATEMENT

We envision a Graduate School that stands for excellence and innovation and that will be globally identified for the distinction of its programs and quality of its research.

GRADUATE SCHOOL GOALS

To realize this mission-vision, the Graduate School commits itself within the next five (5) years:

- To develop the intellect and creativity through excellence in instruction, research, and extension work.
- To form scholars and high level professionals in the arts and humanities, the natural and allied health sciences, the social and management sciences who are ethical and who demonstrate competencies functional in both the local and global workplace.
- To hone the professional and social skills, and critical capabilities of students enabling them to become responsible leaders in their careers and community.
- To provide students opportunities to serve the larger community through extension work and community service.
- To produce quality research in the various fields of knowledge that is internationally recognized.

- To recruit Faculty who are acknowledged experts in the field and to complement the teaching staff by inviting international scholars in the various disciplines.
- To build partnerships and linkages between the Graduate School and academic institutions, industry and government entities at the local and international level.
- To enhance the image and visibility of the Graduate School and its work in both the local and global community.

APPLICATION PROCEDURES

- A. Application for admission to the UST Graduate School is until October 15 for October enrollees, April 5 for Summer enrollees and May 25 for June enrollees.
- B. Application forms for Admission are available at the UST Graduate School, UST Admissions Office & at the UST Graduate School Web Site – <http://www.ust.edu.ph>

REQUIREMENTS:

Certified true copy of Transcript of Records, one (1) colored passport size, recent photo (if any) document(s) attesting to passing a Bar/Board Exam, or being a scholar of any agency.

Two (2) Referral Forms: One(1) for the current (immediate) superior (or Dean, in the case of a school); and the other, for the professor in one specialization (major) subject.

For Foreigners:

All of the above and;

TOEFL English Proficiency and Student Visa Requirements.

ADMISSION REQUIREMENTS

1. Bachelor's Degree in Medical Technology or related courses with a general average of at least 2.0/85% or B.
2. Complete accomplished application and referral forms.

PHILOSOPHY & OBJECTIVES

The graduate program in Medical Technology aims

1. To provide and ensure continuous professional education of medical technology professionals to help them cope up with latest trends in the profession brought about by modernization and technological advancement.
2. To enhance and maintain high professional and technical standard and quality of practice in the medical technology field.
3. To train globally competitive professionals who will assume supervisory functions in clinical laboratories.

CURRICULUM

MASTER OF SCIENCE IN MEDICAL TECHNOLOGY

PRE-REQUISITE SUBJECTS: 6 UNITS

GS 500 - St. Thomas on Critical Thinking

ST. THOMAS ON CRITICAL THINKING is a course on Aristotelian and Symbolic Logic that focuses on the fundamental laws of thought. It provides guiding principles in order to enhance critical and reflective skills that would facilitate correct and responsible judgment and reasoning. It gives an opportunity to be in control of one's thinking activities.

GS 501 - Research Methodology

The Course introduces the student to research concepts relevant to the Natural Sciences. Discussions center on the nature and process of scientific inquiry; the ethical and social responsibilities of the research scientist; and the skills required to do meaningful

research in the Natural Sciences. The course also guides the student in the preparation of a scientific review paper or a research project.

CORE SUBJECTS: 9 UNITS

MT 602 - Biostatistics

A competency-oriented course which emphasizes both the theoretical and the practical aspects of biostatistics. This course presents fundamental concepts in descriptive biostatistics, exploratory data analysis, and statistical inference, focusing on probability and analysis of one, two, three or more samples. Topics include discrete and continuous probability models; expectation and variance; central limit theorem; inference, including hypothesis testing and confidence for means, proportions, and counts; maximum likelihood estimation; sample size determinations; elementary non-parametric and parametric methods; graphical displays; and data transformations.

MT 603 - Philosophy of Medical Technology

A background study on the logical structure of hylemorphism and other comparative theories, introduction to the function and meaning of philosophy of science, and of treatises on the philosophy of life, the role of models and paradigms in scientific revolution, processes and interdependence. Practicum in definitional analysis, philosophical reflection on various life and exact scientific specializations.

MT 604 - Advanced Biochemistry

This course covers in detail the molecular basis of life, which includes the chemistry of biomolecules, structure function relationship, transformation of matter and energy, storage of genetic information, accession and manipulation.

The course provides the basic concepts in biochemistry and how these concepts can be applied in the biological sciences, health and medicine, agriculture, food and related industries.

MAJOR SUBJECTS : 15 UNITS

MT 701 - Advanced Hematology

It is an in-depth study of the diagnosis and treatment of the common disorders of red blood cells, white blood cells and homeostasis. Each

disease state will be discussed in terms of underlying pathophysiology, clinical features, which suggest the diagnosis, the use of state-of-art laboratory tests in the diagnosis and differential diagnosis of the conditions and the current management.

MT 702 - Advanced Medical Bacteriology

A study of bacteriologic agents associated with infectious disease syndrome and procedures for the detection, identification and susceptibility testing of etiologic agents. Emphases are given to new technology, new bacterial agents of infectious diseases, and the evolving interest in public health and preventive medicine.

MT 703 - Advanced Medical Parasitology

A competency-oriented course which emphasizes both the biological and medical aspects of parasites of medical importance.

MT 704 - Mycology and Virology

A study of morphologic and biologic characteristics of mycological and viral agents of disease. It also includes a study of diagnostic methods, transmission, epidemiology, pathology and prevention from infection of each infectious agent.

MT 705 - Advanced Blood Banking

It is the study of recent advances in blood banking theory, technical practice considerations and regulatory guidelines. Certain clinical situations will be discussed in detail including transfusion reactions, hemolytic anemia and transfusion-transmitted viruses.

MT 706 - Advanced Serology & Serological Methods

It is the study of current and state-of-art serologic methods in the diagnosis of bacterial, parasitologic, viral and mycological diseases as well as autoimmune and oncologic disorders.

MT 707 - Advanced Immunology and Immunochemistry

It approaches the conceptual and technical advances in immunologic principles and techniques which can be applied to microbial infections, hypersensitivity, organ transplantation, autoimmune diseases and immunodeficiency disorders.

MT 708 - Epidemiology

A competency-oriented course which emphasizes both the theoretical and the practical aspects of epidemiology. The course covers application of epidemiologic procedures to the understanding of the occurrence and control of conditions such as infections and chronic diseases, mental disorders, community and environmental health hazards, accidents, and geriatric problems.

MT 709 - Advanced Cytologic Techniques

An in-depth study of the current methods of specimen collection, preparation, staining, and microscopic examination. It also includes study of basic disease process and correlation of cellular and tissue pathology.

MT 710 - Nuclear Medicine and other Radiologic Techniques

A study of common instruments and machines found in the clinical laboratory. Emphases are also given to the working principle, application, operation and maintenance of each instrument or machine.

MT 711 - Laboratory Management (Theory and Practice)

A study of principles of administration, organization and management with emphasis on the operation of a clinical laboratory. It also includes discussion of problems in laboratory management including the legal and financial aspects of clinical laboratory operations.

MT 712 - Special Topics

COGNATE SUBJECTS: 3 UNITS

Any related course that has substantial bearing on Thesis.

OTHER REQUIREMENTS

Written Comprehensive Examinations (WCE)
TW I - 3 units (Thesis Proposal)
TW II - 3 units (Research Colloquium)
TW III - 3 units (Thesis Defense)

Total = 42 Units

UST GRADUATE SCHOOL ADMINISTRATION OFFICIALS AND FACULTY SET-UP

LILIAN J. SISON, Ph.D.

Dean

JOSÉ ANTONIO E. AUREADA, O.P., S.Th.D.

Regent

MICHAEL ANTHONY C. VASCO, Ph.D.

Faculty Secretary

CARLOS P. GARCIA, Ph.D.

Director for Graduate Research

GRECEBIO JONATHAN ALEJANDRO, Ph.D.

Supervising Scientist, Science Laboratories

ROMUALDO DEL ROSARIO, Ph.D.

Supervising Scientist, UST Botanical Garden

PROFESSORIAL STAFF

JOSE ANTONIO AUREADA, O.P., S.Th.D.

VERONICA CHAN, Ph.D.

GRACE DE LA CALZADA, M.D.

IRINEO DOGMA, Ph.D.

AUGUSTO MORALES, Ph.D.

DELIA ONTENGCO, Ph.D.

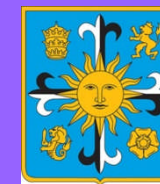
RODOLFO RABOR, M.S.

JOHN DONNIE RAMOS, Ph.D.

LILIAN SISON, Ph.D.

University of Santo Tomas

GRADUATE SCHOOL



GRADUATE PROGRAM

AY 2006 – AY 2011

**Master of Science in
MEDICAL TECHNOLOGY**

España, Manila