Republic of the Philippines
MINISTRY OF EDUCATION, CULTURE AND SPORTS
Palacio del Gobernador, Intramuros
Manila

May 5, 1986

MECS O R D E R
No. 19, s. 1986

POLICIES AND STANDARDS FOR MEDICAL TECHNOLOGY EDUCATION

To: Bureau Directors
Regional Directors
Presidents, State Colleges and Universities
Heads of Private Schools, Colleges and Universities
Deans, Colleges of Education

1. The inclosed set of policies and standards approved by this Office, upon recommendation of the Philippine Association of Schools of Medical Technology and Hygiene (PASMETH) and the Bureau of Higher Education (BHE), embodies the general principles and guidelines for the establishment and operation of medical technology education program.

2. Each medical technology school, in order to align its programs to the goals and mission of the institution and the nation and to make medical technology education responsive to the demands for manpower in the paramedical service, should have the built-in mechanism for continuous self-assessment of its instructional, research and extension service capabilities and program thrusts and the necessary flexibility and adaptability to improve its internal operation and curricular programs towards meeting the diverse needs of students, the community and the nation.

3. All concerned institutions are enjoined to review and revise their curricula to conform with the provisions and requirements set forth in these guidelines. Four copies of the proposed or revised curriculum shall be submitted to the Bureau of Higher Education through the MECSRO for approval before said revision is implemented.

4. The revised curricula shall be implemented according to the following schedule:

Curriculum Year	Implementation Year
First Year	SY 1986-1987
Second Year	SY 1987-1988
Third Year	SY 1988-1989
Fourth Year	SY 1989-1990

5. This Order supersedes all existing guidelines which may relate to medical technology education and shall take effect immediately.

6. Compliance with this Order by all concerned is desired.

(SGD.) LOURDES R. QUISUMBING
Minister

Incl.:
As stated

Reference:
N o n e

Allotment: 1-3-4--(D.O. 1-76)

To be indicated in the Perpetual Index under the following subjects:

CHANGE
Course of Study, COLLEGIATE
CURRICULUM
HEALTH EDUCATION
SOCIETY or ASSOCIATIONS
STUDENTS
TEACHERS
UNIVERSITIES and COLLEGES

POLICIES AND STANDARDS FOR MEDICAL TECHNOLOGY EDUCATION

The following rules and regulations shall govern the operation of medical technology programs in schools, colleges and universities in the Philippines.

ARTICLE I
Authorization

Section 1. The medical technology education program/course shall be operated only upon express provision of law or with proper authority issued pursuant to law by the Ministry of Education, Culture and Sports.

ARTICLE II
Mission Statement

Section 1. The main concern of medical technology education is to provide the country with medical technologists who are scientifically competent to deliver the full spectrum of medical technology services required in modern health care.

Section 2. At the end of the course, the student should have:

2.1 Acquired and developed skills in scientific research methods and processes
2.2 Developed skills in instrumentation and laboratory diagnostic methodology
2.3 Acquired and developed skills, knowledge and attitude to be able to contribute to the overall social, mental and physical health of the community and country.

ARTICLE III
Administration

Section 1. The medical technology school should be administered by a full-time dean with the following qualifications:

1.1 Must be a Filipino citizen
1.2 Must be a registered medical technologist in the Philippines
1.3 Must be a holder of a Master's degree in Science, Education and/or Administration
1.4 Must have good moral character

Section 2. The general functions and responsibilities of the Dean of Medical Technology are:

2.1 To assist the school head in all matters affecting the general policies of the college/university
2.2 To exercise educational leadership among his faculty by:
    2.2.1 Initiating and instituting a faculty development program

2.2.2 recommending appointment, promotion, separation of faculty members in his college

2.2.3 preparing and recommending the teaching load of faculty members in his college

2.3 To assign and orient the faculty to act as advisers to students on their program of studies and to approve their subject loads

2.4 To coordinate with heads of student services particularly regarding the admission of students in accordance with the prescribed criteria on selection, admission and retention of students in the medical technology program

2.5 To help formulate policies in his department and to recommend necessary rules and regulations for their effective implementation

2.6 To institute a definite program of supervision to raise the efficiency of instruction

2.7 To exercise supervision over all activities, curricular and co-curricular, of his department in coordination with other officials concerned

2.8 To approve the list of candidates for graduation

2.9 To recommend acquisition of necessary equipment and supplies.

ARTICLE IV
Faculty

Section 1. Each faculty member shall have academic preparation appropriate to teaching assignments. He:

1.1 Must be a registered medical technologist

1.2 Must preferably be holder of a Master's degree; in lieu thereof, must have two years of teaching experience in Medical Technology courses

1.3 Must be a B.S. Medical Technology holder to qualify as laboratory instructor in medical technology courses

1.4 Must keep abreast of current developments through continuing education programs in Medical Technology.

Section 2. When a vacancy occurs in the teaching force of the college during the school year, a substitute or replacement with similar or higher qualifications should be employed. In extreme cases, a new registered B.S. Medical Technology graduate with no teaching experience but who graduated with honors may be employed as instructor.

Section 3. The following conditions of employment should be observed:

3.1 The remuneration of the faculty, as a general rule, shall be comparable to current minimum salary rates of corresponding ranks in government schools in the locality. Salaries must be paid in full on regular basis and on time. No salary shall be paid on the basis of class enrollment or in the form of shares of stocks.

3.2 A probationary period of not more than three (3) years shall be required of full time faculty. Faculty members who have successfully passed this probationary period shall be considered permanent.

Section 4. The faculty in the college/university offering the medical technology course, through its faculty ranking system, shall be assigned academic ranks in accordance with their academic training and scholarship. The usually recognized ranks are: Instructor, Assistant Professor, Associate Professor, and Professor.

The ranking criteria are based on:

1. training
2. experience
3. efficiency
4. productivity
5. character and personality
6. research

Section 5. Faculty Development Program - For an effective operation of the college, there should be a faculty development program to improve or develop their profession. This program may be carried out by:

5.1 Granting a full scholarship to full time permanent faculty for a year of graduate study in his chosen field

5.2 Granting educational loans or tuition fee discounts to faculty members enrolled in the graduate school

5.3 Attendance in continuing education programs, training programs, conferences, etc. Such attendance shall be filed in the office of the Dean in each teacher's record.

Section 6. Teaching loads

6.1 Teaching loads of deans should not exceed twelve (12) hours of lecture per week.
For faculty members - regular full time load is fifteen (15) lecture hours per week or its equivalent of 30 hours for laboratory courses.

Section 7. Every college/university should have a faculty manual containing information and policies on all matters pertaining to faculty.

ARTICLE V
Curriculum
(see attached curriculum)

ARTICLE VI
Instructional Standards

Section 1. The institution must maintain a high standard of quality of instruction.

Section 2. The institution must have a competent instructional staff of good moral character classified into various professional ranks on the basis of academic and intellectual qualifications.

Section 3. The institution shall provide for a systematic and continuing plan of evaluation of student progress through a marking system that is consistent and congruent to the objectives set up by the college/university.

Section 4. The medical technology education program may adopt any textbook which is of recent edition and which reflects current trends in the medical technology profession and which does not violate Philippine Laws.

Section 5. The Dean should see to it that the students are provided with the necessary textbooks and instructional materials. If the students can not acquire said textbooks, the dean should make arrangements with the administration so that sufficient textbooks may be placed in the library for the students' use.

Section 6. Colleges may change their textbooks only once in every three (3) years.

Section 7. In the internship training where the student develops professional skills by a systematic application of scientific knowledge to actual life situations in the community, hospital, and industry, the following conditions should be considered.

7.1 There must be a close relation of theoretical knowledge to the internship training program.

7.2 The internship training program should be organized around the objectives of the medical technology curriculum.

7.3 In determining the adequacy and effectivity of the training program the following factors must be considered:

7.3.1 Background knowledge of the students in the professional subjects

7.3.2 Hospital/Clinic laboratory affiliation should be accredited by the Bureau of Research and Laboratories of the Ministry of Health

7.3.3 Ratio of students to available and existing facilities in accredited laboratories

7.3.4 The ratio between staff and students must be one staff for every ten student interns

7.3.5 The interns must render the following number of hours in each discipline:

7.3.5.1	Clinical Chemistry	-250 Hours
7.3.5.2	Clinical Microscopy	-200 Hours
7.3.5.3	Microbiology & Parasitology	-250 Hours
7.3.5.4	Hematology	-250 Hours
7.3.5.5	Blood Banking	-170 Hours
7.3.5.6	Histopathology	-170 Hours
7.3.5.7	Serology & Immunology	-170 Hours
7.3.5.8	Special Procedures (BMR,ECG,ETC.)	-104 Hours

7.4 There must be a clinical instructor sent by the affiliating school to monitor the interns' individual attendance, behavior and performance, including guidance in readings and

application of theoretical knowledge gained from school to actual practice, and to assist the pathologist and professional staff in implementing the approved training program for the duration of the training of the interns.

7.5 There must be a close relationship between the pathologist and/or chief of hospital and the dean of the affiliating university/school/college.

ARTICLE VII
Library

Section 1. Every college/university offering the medical technology education program should have library resources relevant to medical technology education, adequate in quality and quantity, which should serve the needs of the students and should progressively develop and grow in accordance with the college's/university's development and expansion plans.

Section 2. There should be an adequate number of books of the latest edition for the professional medical technology subjects.

Section 3. There should be adequate subscription to scientific journals as well as periodicals for different subject disciplines.

Section 4. There should be latest editions of medical technology books.

Section 5. The quantity of books and reference materials in the library should be in proportion to the enrollment and should be responsive to the needs of the students.

ARTICLE VIII
Research

Section 1. The college/university must undertake research activities and operate with a competent and qualified research staff.

Section 2. The faculty members assigned to do research activities shall be credited with an equivalent teaching load for time engaged in research activities.

Section 3. The institution should encourage and support research among its students and faculty members for the improvement of the medical technology profession.

ARTICLE IX
Laboratory Facilities

Section 1. Colleges/Universities are required by law to provide a fully equipped laboratory for adequate instruction.

Section 2. A laboratory room should have a minimum floor space of one square meter/1-2 students, with 1-5 students per locker. Rooms should be well lighted, well ventillated and provided with easily accessible safety devices and first aid facilities.

Section 3. Each laboratory should have:

3.1 Continuous and adequate supply of water, gas and/or electricity
3.2 Fire extinguisher which should be easily accessible
3.3 First aid and emergency shower
3.4 First aid kit/cabinet

Section 4. Requirements for Chemistry laboratories:

4.1 Analytical laboratories (Qualitative Chemistry, Quantitative Chemistry)
4.2 General Chemistry
4.3 Organic Chemistry
4.4 Biochemistry
4.5 Physics
  4.5.1 The laboratory should be provided with 2 exits
  4.5.2 Equipment -
    1 analytical balance per 10 students
    1 weighing scale per 5-10 students
    1 thin layer chromatograph
  4.5.3 Provision of fume hoods and/or exhaust system
  4.5.4 Laboratory table tops should be acid resistant.

Section 5. Laboratories for:

5.1 Clinical Chemistry
5.2 Microbiology
5.3 Serology and Blood Banking
5.4 Histopathologic Techniques
5.5 Biological laboratories (Botany, Zoology, Physiology, and Anatomy)

Laboratory Facilities

* Microscopes
  Clinical Centrifuge
  Hemocytometer
  Hemoglobinometer
  Urinalysis set
  Burner
  Stop watch
  Photometer or spectrophotometer
  Water bath
  Clinical sterilizer
  Drying oven
  Refrigerator
  Interval time

** Analytical and rough balance
Autoclave
Incubator
pH meter or color comparator
Innoculating hood
Gas Pak Unit for Amarosoles
VDRL rotator (shaker)
Microtome set
Paraffin oven
Staining dishes

* - 1 Microscope per 1-2 students
** - 1 balance per 1-15 students

ARTICLE X
Admission Requirements

Section 1. The applicant for admission to a degree course in medical technology must:

1.1 have graduated from a general secondary course authorized by the government
1.2 have passed the NCEE with a score of at least 60 (percentile)
1.3 have satisfactory complied with the admission requirements of the school
1.4 never have been convicted or found guilty of any misconduct involving moral character.

Section 2. As a general rule, no applicant shall be enrolled in the medical technology course unless he presents the required school credentials before the end of the enrollment period.

ARTICLE XI
Effectivity and Implementation of these Policies and Standards

Section 1. The effectivity and implementation of the Curriculum under these Policies and standards will be on the following schedules:

1.1 The First Year Curriculum will be implemented starting the school year 1986-1987
1.2 The Second Year Curriculum, school year 1987-1988

1.3 The Third Year Curriculum, school year 1988-1989

1.4 The Fourth Year Curriculum, school year 1989-1990

REVISED STANDARD CURRICULUM FOR THE DEGREE OF
BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY (B.S.M.T.)

FIRST YEAR

			HOURS		
First Semester			Lec.	Lab.	Units
ENGL	1	Communication Skills 1	3	-	3
SPAN	1	Elementary Spanish	3	-	3
MATH	1	College Algebra	3	-	3
BOT	1	General Botany	3	6	5
CHEM	1	General & Inorganic Chemistry	3	6	5
PIL	1	Sining ng Pakikipagtalastasan	3	-	3
PE	1	Physical Education 1	-	-	(1)
CMT		Citizen Military Training	-	-	(1.5)
		TOTAL			22
Second Semester					
ENGL	2	Communication Skills 2	3	-	3
SPAN	2	Intermediate Spanish	3	-	3
MATH	2	Trigonometry	3	-	3
ZOOL	1	General Zoology	3	6	5
CHEM	2	Qualitative Chemistry	3	6	5
PIL	2	Panitikang Pilipino	3	-	3
PE	2	Physical Education 2	-	-	(1)
CMT		Citizen Military Training	-	-	(1.5)
		TOTAL			22

SECOND YEAR

First Semester					
ENGL	3	Speech & Oral Communication	3	-	3
SPAN	3	Advance Spanish	3	-	3
PHYS	1	General Physics	3	6	5
CHEM	3	Organic Chemistry	3	6	5
SOC SC		Philippine History & Culture/ Roots and Development	3	-	3
PSYCHO		General Psychology	3	-	3
PE	3	Physical Education 3	-	-	(1)
CMT		Citizen Military Training	-	-	(1.5)
		TOTAL			22
Second Semester					
ENGL	4	Survey of Phil. Literature	3	-	3
SPAN	4	Selected Writings	3	-	3
CHEM	4	Quantitative Chemistry	3	6	5
CHEM	5	Biochemistry	3	6	5
SOC SC	3	Taxation and Agrarian Reform and Social Problems	3	-	3
SOC SC	4	Phil. Gov't. & Constitution	3	-	3
*RIZAL		Rizal's Life, Works & Writings	3	-	3
PE	4	Physical Education 4	-	-	(1)
CMT		Citizen Military Training	-	-	(1.5)
		TOTAL			25

THIRD YEAR

First Semester			
Clinical Chemistry (Pure Blood Chemistry)	2	3	3
Medical Technology Laws & Ethics with Laboratory Management	3	-	3
Microbiology	3	6	5
Biostatistics, Including Preventive and Community Medicine	2	3	3
Human Anatomy	2	-	2
Histology (Human)	2	3	3
Physiology	2	3	3
TOTAL			22

Second Semester			
Serology and Immunology	3	3	4
Parasitology	2	3	3
General Pathology and Histo-techniques	2	3	3
Clinical Chem. 2 (Endocrinology & Toxicology)	2	3	3
Hematology	3	3	4
Blood Banking	2	3	3
Clinical Microscopy	2	3	3
TOTAL			23

FOURTH YEAR

INTERNSHIP (12 months - 52 weeks)

Clinical Chemistry	10 weeks
Medical Microbiology and Parasitology	10 weeks
Hematology	10 weeks
Clinical Microscopy	8 weeks
Serology and Immunology	4 weeks
Blood Banking	4 weeks
General Pathology & Histo-techniques	4 weeks
Special Procedures (MBR, ECG, NUCLEAR MEDICINE, ETC.)	2 weeks
TOTAL ...	52 weeks

NOTE:

* - Subject to be offered in Summer
    1. Rizal's Life, Works, and Writings

OPTIONAL SUBJECTS:

1. Genetics ..... 3 units
2. Computer Science ..... 3 units
3. Introduction to Nuclear Medicine..... 2 units

FOUR-YEAR CURRICULUM LEADING TO THE DEGREE OF
BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY (B.S.M.T.)

Course Requirements

SUMMARY

I.	General Education Courses	66 units
II.	Other Required Sciences & Mathematics Courses	25 units
III.	Medical Technology & Applied Science Courses	45 units
	TOTAL	136 units

I. GENERAL EDUCATION COURSES ..... 66 units

A. Languages.....30

1. English 12

Engl. 1 - Communication Skills 1 3
Engl. 2 - Communication Skills 2 3
Engl. 3 - Speech & Oral Com. 3
Engl. 4 - Survey of Phil. Lit. 3

2. Pilipino 6

Pil. 1 - Sining ng Pakikipagtalastasan.3
Pil. 2 - Panitikang Pilipino 3

3. Spanish 12

Span. 1 - Elementary Spanish 3
Span. 2 - Intermediate Spanish 3
Span. 3 - Advanced Spanish 3
Span. 4 - Selected Writings 3

B. Natural Sciences and Mathematics.....21

1. Sciences 15

Chemistry 1 - General & Inorganic Chem.5
Botany 1 - General Botany 5
Physics 1 - General Physics 5

2. Mathematics 6

Math. 1 - College Algebra 3
Math. 2 - Trigonometry 3
**Computer Science 3

C. Social Sciences 12

General Psychology 3
Taxation, Land Reform, and Social Problems 3
Philippine Government and Constitution 3
Philippine History and Culture/ Roots Development 3

D. Rizal Course (Rizal's Life, Works, and Writings).....3

E. Physical Education.....(4)

P.E. 1 - Physical Education 1 .....(1)
P.E. 2 - Physical Education 2 .....(1)
P.E. 3 - Physical Education 3 .....(1)
P.E. 4 - Physical Education 4 .....(1)

Citizen Military Training.....(6)

CMT .....(1.5)
CMT .....(1.5)
CMT .....(1.5)
CMT .....(1.5)

II. OTHER REQUIRED SCIENCES & MATHEMATICS COURSES... 25 Units

A. Biological Sciences 5

General Zoology 5
**Genetics (Optional) 3

B. Physical Sciences (Chemistry) 20

Biochemistry 5
Chemistry 2 - Qualitative Chemistry ... 5
Chemistry 3 - Organic Chemistry 5
Chemistry 4 - Quantitative Chemistry .. 5

III. MEDICAL TECHNOLOGY & APPLIED SCIENCES COURSES... 45 Units

Clinical Chemistry 1	3
Medical Technology Laws & Ethics w/ Mngts.	3
Microbiology	5
Biostatistics, Including Preventive & Community Medicine, Family Planning & Health Care	3
Histology (Human)	3
Physiology	3
Anatomy (Human)	3
Serology and Immunology	4
Parasitology	3
General Pathology and Histo-techniques	3
Clinical Chemistry 2	3
Hematology	4
Blood Banking	3
Clinical Microscopy	3
**Introduction to Nuclear Medicine (Optional)	2

IV. INTERNSHIP (Fourth Year) .....12 months = 1,632 Hours

First Semester

Internship 1	782 Hours
Seminar 1	34 Hours
	816 Hours

Second Semester

Internship 2	782 Hours
Seminar 2	34 Hours
	816 Hours

GENETICS,EUGENICS & EVOLUTION (ZOOLOGY 3)

A survey of the basic methodology in the study of heredity variation, sex determination, and other phenomena, with emphasis on human inheritance. Includes study of the genetic material and principles underlying its transmission and arrangement, and its role in the evolutionary process. Pre-requisite: Zoology 1, 3 hours a week; credit 3 units.

ANATOMY, HUMAN

Introduction to regional anatomy and histology of the body with charts, diagrams, models used to enliven the subject in the form of demonstrations, also visitations to the different morgues for practical application of the knowledge of human anatomy as far as weights, measurements and other parts of the human body are involved. One semester, 2 hours lecture a week, 2 units. Pre-requisite: Zoology.

HISTOLOGY-EMBRYOLOGY-GENETICS

Study of the fundamentals of cells and tissues, origin and development of human beings, span of life of man, with emphasis on reproduction, period of the embryo, fetus, genes, patterns of inheritance, with the inclusion of family planning as well as teratology. One semester, 2 hours lecture a week, 3 hours laboratory a week, 3 units. Pre-requisite is Zoology.

MICROBIOLOGY

A course covering the morphology and physiology of bacteria, rickettsia, viruses, fungi, PPLO, and their role in infection and immunity. Emphasis is made on their isolation and identification as an aid in laboratory diagnosis. One semester, 3 hours lecture a week, 6 hours laboratory, 5 units. Pre-requisite: Zoology and Botany.

HUMAN PHYSIOLOGY

A brief course on the most important physiological principles involving the cell, muscle, nerve, blood, circulation, respiration, digestion, secretion, heat regulation, the special senses and the nervous system. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units. Pre-requisite: Zoology.

CLINICAL CHEMISTRY 1

Blood collection and preservation; basic principles and techniques; analytical procedures and instrumentation; laboratory tests on glucose, NPN compounds, proteins lipids, enzymes, water and electrolytes; and quality control. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units. Pre-requisites: Biochemistry, Quantitative Chemistry, Organic Chemistry, and Qualitative Chemistry.

BIOSTATISTICS, INCLUDING PREVENTIVE & COMMUNITY MEDICINE, FAMILY PLANNING & HEALTH CARE

The students are introduced to the fundamental principles involved in an activity which is considered as one of the basic health services in a community. Consideration of how various factors in our environment may affect men in terms of health maintenance and promotion, of the production of diseases, will be taken up. Fundamentals of family planning and health care will also be included in discussions. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units.

PARASITOLOGY, HUMAN

This course is a study of animal parasites which are of medical importance to man, especially those commonly found in the Philippines. Emphasis is given on the characteristics of parasites from the point of view of morphology, epidemiology, pathogenicity, laboratory diagnosis of their specific diseases, distribution and life cycles as well as preventive measures against infection. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units. Pre-requisite: Zoology.

CLINICAL CHEMISTRY 2

The subject is equally divided into two topics - Endocrinology and Toxicology. Endocrinology is the study of hormones, endocrine glands, with emphasis on action of hormones, control of secretion, thyroid function tests and other hormonal essays applicable to Philippine setup; urinary hormones and their metabolites. Pre-requisite: Anatomy. Toxicology is the study of poisons with emphasis on classification, action, regulations on dispensing and use, precautions, general purification, isolation, quantitative estimation in biological specimens. Pre-requisites: Physiology, Anatomy, Clinical Chemistry 1. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units.

BLOOD BANKING

In Blood Banking, students are taught the fundamentals of blood group specific antibodies and antigens, mechanics of blood typing and cross-matching. Coombs tests (antiglobular test) detection of antibodies and measurement of titers as well as the proper way of reading and reporting of results. The students are also

taught certain screening tests done on prospective donors in blood donation. Techniques in bleeding, proper labeling, storing and disposal of donor blood are discussed. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units.

HEMATOLOGY

The students are taught the fundamentals of blood as a tissue, including its physical characteristics. The mechanism of coagulation as the underlying basis for understanding and properly applying all laboratory tests associated with coagulation defects is discussed. They are taught the proper technic of collecting peripheral blood, marrow tissue, splenic and lymph node specimen, morphology of blood cells and mechanics of hematologic procedures associated with diseases, abnormalities of red blood cells, and apply correction when necessary. One semester, 3 hours lecture a week, 3 hours laboratory, 4 units.

SEROLOGY AND IMMUNOLOGY

This deals with the mechanism of all serological procedures, interpretations, reading of results and proper reporting. Fundamentals of Immunology is also taught. One semester, 3 hours lecture a week, 3 hours laboratory, 4 units.

CLINICAL MICROSCOPY

The subject involves the macroscopic, chemical, and microscopic study of the different body fluids and their by-products, such as urine, feces, sputum, gastric juice, cerebro-spinal fluid, synovial fluid, transudates, exudates, sweat, and seminal fluid. The macroscopic examination includes the study of the different physical characteristics of the specimens mostly using the naked eye; while the chemical examination involves the detection of the absence or the presence or the normal or abnormal values of the different elements in the specimens (colorimetric, turbidimetric, titrimetric, gravimetric, etc.) and the use of the different chemical agents. Also included in the chemical examinations are hormones in relation to pregnancy tests, kidney function test, renal calculi tests, etc. The microscopic study involves sediments (solid elements) in these fluids. Automated and chromatographic procedures and techniques are also discussed to familiarize the students with modern knowledge. One semester, 2 hours lecture a week, 3 hours laboratory, 3 units.

GENERAL PATHOLOGY & HISTOTECHNIQUE

This course is divided into two parts, the first part consisting of General Pathology and the second part, of Histopathologic Technique. The first part offers the student a rounded concept of basic disease processes, correlating the etiology of diseases that they have learned with the course of development and

anatomic changes brought about by the diseases. This will help them understand the patient that they will meet in the laboratory and impress on them the significance of the laboratory examination they will be doing in relation to a disease process. This part consists of 36 hours of lecture and 72 hours laboratory.

The second part introduces and develops the skill of the student in doing the basic histologic techniques essential in any histopathological laboratory. They are especially practised in the preparation of tissues from the fresh state to the final mounting of the sections. Special staining procedures are also included with introduction of cytology. In this course, students are required to attend at least one autopsy. This part consists of 18 lecture hours and 36 hours of laboratory.

MEDICAL TECHNOLOGY LAWS, ETHICS & LABORATORY MANAGEMENT

The course includes the study of the history of the medical technology profession both local and abroad, history of the Philippine Assocation of Medical Technologists, Philippine laws, Presidential Decrees in relation to the practice of the medical technology profession, such as the Medical Technology Law of 1969, R.A. 6138, P.D. 498, P.D. 1534, Clinical Laboratory Law, Blood Banking Law, Letters of instructions, administrative orders from the Ministry of Health, also the study of the Medical Technology Code of Ethics, Professional Ethics, and Laboratory Management which will include introduction to laboratory management, laboratory operations, personnel management, material management, and professionalism. One semester, 3 hours lecture a week, 3 units.