

SEVENTEENTH CONGRESS OF THE REPUBLIC)
OF THE PHILIPPINES)
Second Regular Session)

SENATE
S.B. No. 1630

17 DEC -6 P5:11

Introduced by Honorable Senator Juan Miguel F. Zubiri

RECEIVED BY _____



**AN ACT
REGULATING THE PRACTICE OF MICROBIOLOGY IN THE PHILIPPINES AND
FOR OTHER PURPOSES**

EXPLANATORY NOTE

Society benefits from microorganisms in various ways. These microorganisms are employed in the production of foods and condiments such as bread, cheese, beer, soy sauce and pharmaceuticals such as antibiotics, vaccines, and hormones like insulin and vitamins. They are also employed in environmental clean-up and in the production of biogas and bioethanol. Life on earth is preserved with the action of microorganisms in the cycling of major elements such as carbon, oxygen, nitrogen, phosphorus and sulfur both in terrestrial and aquatic ecosystems. Furthermore, microorganisms are the source of nutrients at the base of ecological food chains and food webs. Microorganisms are employed in scientific research and technology.

The principles of microbiology form the foundation of modern biotechnology such as genetic engineering and cell and tissue culture. Conversely, microorganisms are responsible for the spoilage of food and manufactured goods and for post harvest losses in agricultural crops; food poisoning and many diseases in humans such as HIV, pneumonia, typhoid, and cholera; in livestock such as foot and mouth disease; and in crops such as bacterial leaf blight in rice, Sigatoka disease in bananas, abaca bunchy top and damping off in vegetables.

The handling of microorganisms requires special skills and knowledge. Such skills and knowledge are essential in the quality control of processed foods and manufactured goods, in managing environmental pollution, in remediating degraded soils, managing/preventing epidemics in human, animal and crop populations and in

efficiently producing microbial-based goods and services. The academic preparation and manpower training of microbiologists can be provided by universities and colleges. The practice of microbiology as a profession has started more than five decades ago. Inevitably due to differences in philosophy, facilities and resources, the content and emphasis of the curriculum and training modules in various institutions differ. Given the important role of microbiologists as stated above, it is imperative that the profession of microbiology be regulated.

Other professionals registered with the Philippine Regulatory Commission where microbiology is an essential component of their practice such as Doctor of Medicine, Doctor of Veterinary Medicine and Medical Technologist may continue to practice microbiology without registering under this Act.

In view of the foregoing, the approval of this bill is earnestly sought.



JUAN MIGUEL F. ZUBIRI

Introduced by Honorable Senator Juan Miguel F. Zubiri



**AN ACT
REGULATING THE PRACTICE OF MICROBIOLOGY IN THE PHILIPPINES AND
FOR OTHER PURPOSES**

*Be enacted by the Senate and the House of Representatives of the Philippines in
Congress Assembled:*

**ARTICLE I
TITLE, DECLARATION OF POLICY AND OBJECTIVES**

1
2 **SECTION 1. Title.** - This Act shall be known as the "Philippine Microbiology Act
3 of 2017."
4

5 **SEC. 2. Statement of Policy and Objective.** – The State recognizes the
6 important role of microbiologists in national development. It is the object of this Act to
7 institute a regulatory system that guarantees the delivery of technical services in a
8 manner that ensures food safety, quality of manufactured goods and responsive health
9 and environmental care and prevents the rapid spread of microbially-caused diseases in
10 human and animal populations.
11

12 **ARTICLE II**
13 **DEFINITION OF TERMS**

14 **SEC. 3. Definition of Terms.** – For purposes of this Act:

- 15 **a. Microbiology** – shall refer to a multi-disciplinary study of the diversity,
16 evolution, and ecology of microscopic organisms such as bacteria, archaea,
17 viruses, fungi, algae, and protozoa. It covers several branches of specialization
18 such as biochemistry, physiology, cell and molecular biology, genetics,
19 evolutionary biology, and many others in order to study the nature and function
20 of these microorganisms and how they affect Earth's processes and other
21 organisms.

1 **b. Practice of the microbiology profession** - shall refer to the profession
2 requiring the application of the fundamental and known principles of
3 microbiology pertinent to the conditions and requirements of food safety and
4 manufacturing standards, responsive healthcare and disease prevention, and
5 environmental protection and quality management and shall include, but will not
6 be limited to the following:

7 (1) Consultation, valuation, investigation and management services on
8 the identification of microbial agents in food, feed, human, plant and animal
9 diseases and in environmental impact assessments;

10 (2) Management or supervision and the preparation of designs, plans,
11 specifications, project studies and estimates for microbial-based processes and
12 related manufacturing and waste management facilities;

13 (3) Conduct of research and development, training and extension work,
14 and consultancy services on the various areas of microbiology such as general
15 microbiology, food microbiology, agricultural microbiology, industrial, veterinary,
16 medical, aquatic and environmental microbiology and on microbiological
17 facilities/services, systems and technologies;

18 (4) Microbiological testing and inspection of food, pharmaceutical,
19 agricultural, fishery and forest products;

20 (5) Management, manufacturing and/or marketing of microbial and
21 microbial-based products;

22 (6) Quality control in the manufacture of foods, food additives, flavors,
23 feeds, pharmaceuticals, cosmetics, biofuels and biofertilizers;

24 (7) Teaching microbiology subjects and offering microbiology degrees and
25 training courses in institutions of higher learning in the Philippines; and

26 (8) Employment with the government or private institution/agency,
27 provided such item or position requires the knowledge and expertise of a
28 microbiologist.

29
30 **c. Certified Microbiologist** – shall refer to a natural person who has been
31 issued a Certificate of Registration by the Board of Microbiology and has taken
32 the oath of profession of microbiologists.

33
34 **d. Fields in Microbiology** – shall include Bacteriology, Virology, Protozoology,
35 Phycology, and Mycology.

1
2 **e. Bacteriology** – shall refer to the branch of microbiology that specifically deals
3 with the biochemistry, physiology, morphology, evolution, genetics, and ecology
4 of bacteria—a large domain of single-celled prokaryotic microorganisms.
5 Bacteriology also deals with the study of medically- and industrially-significant
6 bacteria, such as those which cause major infectious diseases, food spoilage, and
7 those which are able to ferment food or produce valuable antibiotics and
8 enzymes.

9
10 **f. Virology** – refers to the branch of microbiology that specifically deals with
11 viruses—sub-microscopic obligate intracellular parasites—and virus-like particles,
12 and subviral particles such as prions and viroids, which usually cause disease in
13 animals, plants, and humans. Virology studies the taxonomic classification and
14 ultrastructure of these agents, their genetic make-up, mode of infection, as well
15 as their interactions with their respective hosts.

16
17 **g. Protozoology** – shall refer to the branch of microbiology that studies protozoa,
18 a diverse group of eukaryotic, heterotrophic microorganisms. It is concerned with
19 the taxonomy, physiology, evolution, biochemistry, and metabolism of
20 protozoans. As several protozoans are disease-causing, protozoology is also
21 concerned with studying their modes of infection, transmission, life cycles, as
22 well as their interaction with their host organisms.

23
24 **h. Phycology** – shall refer to the branch of microbiology that studies algae, which
25 is a large group of chiefly aquatic macroscopic and microscopic unicellular
26 organisms similar to plants in terms of metabolism and structure. Phycology
27 studies the ultrastructure, biochemistry, metabolism, and ecology of these algae,
28 such as different species of seaweeds, phytoplankton, and a vast number of
29 others.

30
31 **i. Mycology** – shall refer to the branch of microbiology that studies yeast, molds,
32 and mushrooms, which are collectively referred to as fungi. It is concerned with
33 the physiology, taxonomy, biochemistry, ecology, and genetic properties of fungi.
34 Mycology also deals with the significance and application of fungal species in
35 medicine and industry, as several species could cause disease and can produce
36 antibiotics as well as other valuable secondary metabolites.

- 1
2 **j. *Related fields in Microbiology*** – shall include cell biology, helminthology,
3 immunology, molecular microbiology, parasitology, and plant pathology.
4
5
6

7 **ARTICLE III**
8 **BOARD OF MICROBIOLOGY**
9

10 **SEC. 4. *Creation and Composition of the Board.*** - A Board of Microbiology
11 is hereby created, hereinafter referred to as the Board, composed of a Chairman and
12 two (2) Members, two of whom with at least five (5) years of teaching experience in
13 microbiology, who shall be appointed by the President of the Republic from
14 recommendees of the Professional Regulation Commission, hereinafter referred to as
15 the Commission, from five (5) nominees recommended and endorsed from the
16 Philippine Academy of Microbiology of the Philippine Society for Microbiology, Inc. The
17 Board shall be organized not later than six (6) months from the effectivity of this Act.
18

19 **SEC. 5. *Powers and Functions of the Board.*** – The Board shall be
20 vested with the following powers and functions:

- 21 a. Adopt and enforce a Code of Ethics for the practice of microbiology;
22 b. Promulgate, administer and enforce rules and regulations necessary to
23 carry out the provisions of this Act, in accordance with the Charter of the
24 Commission;
25 c. Prepare the contents of licensure examinations;
26 d. Supervise and regulate the registration, licensure, and practice of
27 microbiology in the Philippines;
28 e. Administer oaths and issue Certificate of Registration;
29 f. Maintain a roster of microbiologists indicating therein the basic
30 information about the registered professionals;
31 g. Recommend measures necessary for the upgrading, enhancement,
32 development and growth of Microbiology in the Philippines;
33 h. Monitor the conditions affecting the practice of microbiology and adopt
34 such measures as may be deemed necessary for the enhancement of the
35 profession and/or maintenance of high professional, ethical and technical
36 standards;

- 1 i. Investigate violations of set professional standards and adjudicate
2 administrative and other cases against erring registrants;
- 3 j. Issue, reinstate, suspend or revoke the Certificate of Registration for the
4 Practice of Microbiology;
- 5 k. Approve registration of microbiologists without examination, subject to
6 review by the Commission;
- 7 l. Issue special permits to persons admitted to the practice of microbiology for a
8 specific duration, and certification of recognition to Microbiologist for graduate
9 degree, outstanding researches, highly specialized training courses and
10 accomplishments that contribute to the enrichment of the profession;
- 11 m. Submit an annual report at the close of each fiscal year on the proceedings
12 and accomplishments of the Board during the year as well as any
13 recommendations of the same Commission with the end of upgrading and
14 improving the conditions affecting the practice of Microbiology in the
15 Philippines.

16
17 The policies and resolutions, rules and regulations, orders, or decisions issued
18 or promulgated by the Board shall be subject to the review and approval of the
19 Commission; *Provided*, That the decisions, resolutions, and orders rendered by the
20 Board which are interlocutory in an administrative case shall be subject to review on
21 appeal.

22
23 **SEC. 6. Qualifications of the Chairman and Members of the Board. -**

24 The Chairman and Members of the Board shall at the time of appointment, possess
25 the following qualifications:

- 26 a. Must be a Filipino citizen and resident of the Philippines;
- 27 b. Must be of proven integrity and with high moral values as evidenced by
28 his/her past professional conduct and must not have been convicted of
29 any offense;
- 30 c. Must be a holder of a bachelor's degree, preferably advanced degrees in
31 Microbiology or any related field with at least 24 units in Microbiology;
- 32 d. Must be a Diplomat or Fellow of the Philippine Academy of Microbiology
33 and a member of good standing of the Philippine Society for Microbiology,
34 Inc., who has at least ten (10) years of practice in microbiology either in
35 government or in any private institution;

1 e. Not an investor, consultant or a person financially involved directly or
2 indirectly in any school, college, university or institution conferring an academic
3 degree for admission to the practice of microbiology or where review classes in
4 preparation for the licensure examination are being offered or conducted.
5

6 **SEC. 7. Tenure of Office.** – The Chairman and Members of the first appointed
7 Board shall serve the following terms:

8 a. one (1) Member as Chairman for three (3) years;

9 b. one (1) Member for two (2) years; and

10 c. one (1) Member for one (1) year.
11

12 The Chairman and Members of the Board may be reappointed for another term
13 but in no case shall he/she serve continuously for more than six (6) years. They
14 shall take the proper oath of office prior to assumption of office.
15

16 **SEC. 8. Meetings of the Board.** – The Board shall hold annual regular
17 meetings and other such regular meetings at such times as the rules of the Board
18 may provide but not less than four times a year. Special meetings may also be held
19 upon the call of the Chairman or request by two of its Members. Reasonable notice
20 of all meetings shall be given in the manner prescribed by the rules of the Board.
21

22 **SEC. 9. Compensation and Allowances of the Board.** – The Chairman and
23 Members of the Board shall receive compensation and allowances equivalent to those
24 being received by the Chairman and members of existing regulatory boards under the
25 Commission as provided for in the General Appropriations Act.
26

27 **SEC. 10. Vacancy and Removal of Board Members.** - Any vacancy in the
28 Board shall be filled only for the remaining unexpired portion of the term.
29

30 The Chairman or any member of the Board may be suspended or removed from
31 office by the President of the Republic of the Philippines upon the recommendation of
32 the Commission for neglect of duty, incompetence, malpractice, commission or
33 tolerance of irregularities in any examination given by the Board, unprofessional or
34 unethical conduct, after due notice and hearing where his/her right to be heard, to
35 defend him/herself and to be assisted by counsel is respected in a proper
36 administrative investigation; *Provided*, That during the process of investigation the

1 Commission shall have the power to suspend such member under investigation. The
2 Commission shall appoint a temporary member to take his/her place. The
3 Commission's decision may be appealed within fifteen (15) days to the President of
4 the Republic of the Philippines whose decision shall be final and executory.

5
6 **SEC. 11. Supervision of the Board, Custodian of the Records, Secretariat
7 and Support Services.** – The Board shall be under the general supervision and
8 administrative control of the Commission. The Commission shall keep all records of
9 the Board, including applications for examination papers and results, minutes of
10 deliberations, administrative cases and other investigative cases involving
11 microbiologists.

12 The Commission shall designate the Secretary of the Board and shall provide
13 secretariat with support services to implement the provisions of this Act.

14
15 **ARTICLE IV**
16 **EXAMINATION AND REGISTRATION**

17
18 **SEC. 12. Licensure Examination.** – Every applicant seeking to be registered
19 and licensed as Microbiologist shall undergo and pass a written technical examination
20 to be given by the Board at least once a year in such places and dates as the
21 Commission may designate.

22
23 **SEC. 13. Qualifications for Examination.** - Any person applying for admission
24 to the licensure examination for Microbiologist shall establish to the satisfaction of the
25 Board that:

- 26 a. He/she is a citizen of the Philippines;
27 b. He/she is of good moral character;
28 c. He/she has not been convicted by a competent court of any offense involving
29 moral turpitude;
30 d. He/she has earned at least 24 units in Microbiology and holds a baccalaureate
31 or post graduate degree in Microbiology or any related field;

32
33 **SEC. 14. Scope of Examination.** – The Board shall base the licensure
34 examination on seven (7) subjects with the following weights:

1	a. General microbiology	20%
2	b. Microbial physiology	20%
3	c. Microbial genetics	20%
4	d. Microbial ecology	15%
5	e. Applied microbiology	
6	(Food, Industrial, and Medical Microbiology)	15%
7	f. Philippine Microbiology Act of 2017,	
8	Code of Ethics, and History of PSM	10%

9

10 **SEC. 15. Release of the Results of Examination.** – The Board and the
 11 Commission shall correct and release the licensure examination results within fifteen
 12 (15) days after the said examination.

13 **SEC. 16. Rating in Examination.** – An examinee shall be deemed to have
 14 successfully passed the examination if he/she has obtained an average of at least
 15 seventy percent (70%); *Provided*, That in no case should the rating in any subject be
 16 less than fifty percent (50%); *Provided further*, That an examinee who fails to obtain
 17 at least 50% grade in any subject shall retake the subject for a maximum of three (3)
 18 times; *Provided finally*, That if the grade on the third retake is still below 50%, he/she
 19 will then be required to retake all six (6) subjects.

20 **SEC. 17. Issuance of the Certificate of Registration.** – A Certificate of
 21 Registration shall be issued to examinees who pass the licensure examination for
 22 Microbiology. The Certificate of Registration shall have the signature of the Chairman
 23 of the Commission and the Members of the Board, stamped with the official seal,
 24 indicating that the person named therein is entitled to practice the profession with all
 25 the privileges appurtenant thereto.

26

27 This Certificate shall remain in full force and effect until withdrawn, suspended or
 28 revoked in accordance with the provisions of this Act.

29

30 A Certificate of Registration valid for three (3) years, duly signed by the Chairman
 31 of the Commission, bearing the registration number, date of issuance, and expiry
 32 date, shall likewise be issued to every registrant who has paid the required
 33 registration fee. This Certificate of Registration shall serve as evidence that the

1 microbiologist can lawfully practice his/her profession until the expiration of its
2 validity.

3

4 **SEC. 18. Certification Without Examination.** - The Board shall issue a
5 Certificate of Registration without the necessity of undergoing and passing the
6 licensure examination for Microbiology, to any applicant who, together with his/her
7 application for registration shall present evidence or proof satisfactory to the Board
8 that:

9 a. He/she is a Filipino citizen;

10 b. He/she is a person of good moral character;

11 c. He/she is a member of good standing of the Philippine Society for Microbiology,
12 Inc.; and

13 d. He/she is a Diplomat or Fellow of the Philippine Academy of Microbiology, or is
14 accredited by the Philippine Academy of Microbiology as Registered or Specialist
15 microbiologist; or

16 e. He/she has been granted a doctorate in Microbiology from a Philippine or
17 foreign graduate institution.

18

19 **SEC. 19. Refusal to Register.** – The Board shall refuse to issue the Certificate of
20 Registration to any person who has been convicted by a Court of competent
21 jurisdiction of any crime involving moral turpitude, or has been found guilty of
22 immoral or dishonorable conduct after due investigation by the Board, or has been
23 declared to be of unsound mind. The record of refusal shall be set forth in writing and
24 shall be incorporated with the records of the Board.

25

26 **SEC. 20. Revocation or Suspension of the Certificate of Registration.** –
27 The Board may, after giving proper notice and hearing to the party concerned,
28 suspend or permanently revoke the practitioner's Certificate of Registration, thereby
29 inhibiting him/her from the practice of the profession for any unprofessional or
30 unethical conduct, malpractice, violation of any of the provisions of this Act, its rules
31 and regulations or upon conviction for the commission of any crime.

32

33 **SEC. 21. Reinstatement, Reissuance or Replacement of Certificate of**
34 **Registration.** – The Board may, upon application and for reasons deemed proper
35 and sufficient, reinstate and reissue any suspended Certificate of Registration, or

1 replace lost, destroyed or mutilated documents subject to the rules implemented by
2 the Board.

3

4 **SEC. 22. Renewal of Certificate of Registration.** – The Certificate of
5 Registration shall be renewed every three (3) years upon satisfying the requirements
6 imposed by the Board, such as compliance with a continuing education program and
7 payment of the corresponding fees as may be prescribed by the Board in accordance
8 with the schedule of fees fixed by the Commission.

9

10 **SEC. 23. Roster of Microbiologists.** - The Board shall keep a roster of duly
11 registered and licensed microbiologists, indicating their names, registration numbers,
12 nature of work, and other pertinent information. The Board shall regularly update
13 such roster and make it available to all interested parties.

14 **SEC. 24. Practice of Microbiology in Other Professions Registered with**
15 **the Professional Regulatory Commission.** - Other professionals registered with
16 the Philippine Regulatory Commission where microbiology is an essential component
17 of their practice such as Doctor of Medicine, Doctor of Veterinary Medicine and
18 Medical Technologist who have specialization in microbiology may continue to practice
19 without registering under this Act.

20

21 **SEC. 25. Issuance of Temporary or Special Permits.** – Without prejudice to
22 the existing laws on the practice of professions by foreigners in the Philippines, the
23 following may be issued temporary or special permits to practice Microbiology in the
24 Philippines:

25

26 a. Foreign registered and/or licensed Microbiologist or recognized as experts in
27 microbiology, called in by the Philippine government or private institutions for
28 consultation or for any specific activity; and

29 b. Foreign registered and/or licensed Microbiologist who have distinguished
30 themselves in their respective fields of specialization and who are either directly hired
31 or employed as professors/lecturers/instructors in Microbiology by Philippine schools,
32 colleges, universities or research institutions; *Provided*, That their practice of the
33 profession shall be limited to the particular work for which they have been
34 commissioned; *Provided further*, That the said temporary or special permit shall be
35 valid only for one (1) year subject to renewal every year.

1
2 **ARTICLE V**
3 **PRACTICE OF MICROBIOLOGY**
4

5 **SEC. 26. Prohibitions and Limitations in the Practice of Microbiology.** – No
6 person shall offer him/herself in the Philippines as a microbiologist, or make use of
7 any word, letter, figure or sign whatsoever, tending to convey the impression that
8 he/she is a microbiologist, or advertise that he/she is qualified to perform the work as
9 such, without holding a valid Certificate of Registration in accordance with the
10 provisions of this Act, except as provided under Sections 24 and 25 hereof.
11

12 **SEC. 27. Professional Oath.** – All successful candidates in the examination or
13 registration shall be required to take a professional oath at such place and time as the
14 Board may schedule or before any member of the Board or any person duly
15 authorized by the Commission, prior to the practice of the profession.
16

17 **SEC. 28. Code of Ethics.** - The Board shall adopt the Code of Ethics for
18 Microbiology promulgated by the Philippine Academy of Microbiology of the Philippine
19 Society for Microbiology, Inc.
20

21 **SEC 29. Foreign Reciprocity.** - No foreign Microbiologist shall be admitted to
22 the examination and be entitled to any of the privileges under this Act unless the
23 country in which he/she is a citizen specifically permits Filipino microbiologists to
24 practice within its territorial limits on the same basis as the citizens of such foreign
25 state or country.
26

27 **ARTICLE VI**
28 **MISCELLANEOUS PROVISIONS**
29

30 **SEC. 30. Funding Provisions.** – The savings from any item of appropriations
31 of the Professional Regulatory Commission shall be utilized for the initial
32 implementation of this Act. Thereafter, such sum as may be necessary to carry out
33 the provisions of this Act shall be included in the annual General Appropriations Act.

34 **SEC. 31. Implementing Rules and Regulations.** – Subject to the approval
35 of the Commission, the Board shall adopt and promulgate such rules and regulations,
36 including the Code of Ethics for Microbiologist, to carry out the provisions of this Act,

1 which shall be effective thirty (30) days following its publication in the Official
2 Gazette or in two (2) major newspapers of general circulation.

3 **SEC. 32. Penal Provisions.** – Any person who shall violate any of the provisions
4 of this Act or any of its implementing rules and regulations shall, upon conviction, be
5 imposed with a fine of not less than Ten Thousand pesos (P10,000) but not more
6 than Fifty Thousand Pesos (P50,000), or with imprisonment of not less than six (6)
7 months nor more than five (5) years, or both at the discretion of the Court.

8 **SEC. 33. Separability Clause.** – If any provision or part of this Act is declared
9 invalid or unconstitutional, the remaining parts or provisions not affected thereby shall
10 remain in full force and effect.

11 **SEC. 34. Repealing Clause.** – All laws, decrees, executive orders, rules and
12 regulations or parts thereof which are in conflict with the provisions of this Act are
13 hereby repealed or modified accordingly.

14 **SEC. 35. Effectivity.** – This Act shall take fifteen (15) days after its publication in
15 the Official Gazette or in any newspaper of general circulation.

16

17 Approved,

18