



# The Evolution of Dental Education in the Philippines

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## 1. Foundation of dental education

Comparable to the history of dentistry in other countries, the dental practice in the Philippines began as a crude craft. The first tooth pullers were barber surgeons and were known as *sacamuels* during the Spanish occupation. The first special course resembling that of dentistry in the country was offered by the University of Santo Tomas and the graduates were called *cirujano ministrantes*. Later on, the term was changed to *cirujano dentistas*.<sup>1,2</sup>

The history of formal education in the field of dentistry started in 1903 during the American occupation, when the Philippine Civil Commission passed the First Dental Law Act No. 593. Formal dental education in the Philippines was brought and established by the Americans, where the curriculum was the same as that in the United States of America. This created the Board of Dental Examiners (BDE) and subsequently the prerequisites in taking the Dentist Licensure Exam (DLE). This board was made up of Dr. Robert T. Olliver as chairman, Dr. Wallace G. Skidmore as secretary-treasurer, and Dr. Antonio Vergel de Dios as member. It was stipulated in the law, that a person who wanted to practice dentistry in the Philippines, should be a graduate of a dental college recognized by the

National Association of Dental Faculties and National Association of Dental Examiners.<sup>1</sup>

In 1930, provision in Act No. 3538 provided for a reciprocal agreement that allowed the practice of foreign dentists in the Philippines, if the country of origin of the foreign dentist offers the same. In 1934, another law was passed to allow the practice of dentistry even without passing the DLE. Eventually this law was opposed and vetoed by Governor General Frank Murphy.<sup>1</sup>

From a 4-year program of dental studies from school year 1949–1950, it now takes six years to attain a Doctor of Dental Medicine (DMD) degree. This started in 1951 with the adoption of the 2-year pre-dental prerequisite, which caused a gradual decrease in enrollment up until the school year 1956–1957.<sup>3</sup>

Before World War II, the Philippines had the most number of dental schools in Asia with ten institutions, India had seven, Japan had seven, Indonesia had three, Pakistan had two, while Thailand and Korea had one a piece.<sup>3</sup> Presently there are thirty-six dental schools or colleges in the country.<sup>4</sup> The first ten dental schools in the Philippines were the Philippine Dental College (1913), University of the Philippines (1915), National University (1924), Centro Escolar University (1925), Manila Central University (1929), College of Oral & Dental Surgery (1933), Southwestern Colleges (1946),

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Iloilo City Colleges (1947), University of the East (1948), and University of San Agustin (1953). Southwestern Colleges in Cebu City, which is now known as Southwestern University PHINMA was the first dental school outside of Manila. This was followed by the creation of Iloilo City Colleges and the University of San Agustin, which are both located in Iloilo City.<sup>1,2</sup>

Then House Bill 2783 was enacted and signed in to Republic Act (RA) No. 417 Philippine President Elpidio Quirino in 1948. This law added the practical test in the DLE, added a penal provision for illegal dental practice, and ratified the provisional requirements of the members of the BDE.<sup>1</sup>

The first record of dental student enrollment yielded 3, 227 dental students in the school year 1949–1950. In the December 2017 DLE, there were a total 762 (51.35%) of 1, 484 total dental graduates who passed the written phase of the examination. For the practical phase, 763 (99.22%) of the total 769 eventually passed and hence, became licensed dentists.<sup>4</sup>

## 2. The Doctor of Dental Medicine curriculum

The dental schools of the Philippines are regulated by the Commission on Higher Education (CHED) in the Philippines. Moreover, CHED Memorandum Order (CMO) No. 33 Series of 2006 stipulates the policies, standards, and guidelines for dental education. Universities that anticipate the offering of the 6-year DMD degree program must adhere to the former and make the latter a guide. This program is composed of the pre-dental course in the first two years, basic medical and dental sciences with pre-clinical subjects in the next two years, and the clinical training in the last two years.<sup>5</sup> (Table 1).

The academic year in the Philippines mostly is divided into two semesters and a summer semester. The first semester starts from June until October, the second semester from November to March, and the summer semester from April to May. In the 2-year span of the pre-dental curriculum, a total of 108 credit units (CU) which includes 21 CU for language or humanities; 12 CU for mathematics, natural sciences, and information technology; 25 CU for natural sciences; 21 CU for social sciences; 15 CU for human health sciences; 6 CU for physical education; and 8 CU for National Service Training Program (NSTP) are required. For the 4-year dentistry curriculum (Table 2), a total of 173 CU which includes 37 CU for basic medical sciences; 73 CU for basic dental sciences; 6 CU for pre-clinical subjects; 43 CU for clinical dentistry; 6 CU for hospital dentistry; and 8 CU for community dentistry. In the last two years

Table 1  
Two-Year pre-dental curriculum. Source: College of Dentistry, Southwestern University PHINMA, June 2017

First Semester	Second Semester
<b>First Year</b>	
Study and Thinking Skills in English	Writing in the Discipline
Komunikasyon sa Akademikong Filipino	Pagbasa at Pagsulat Tungo sa Pananaliksik
College Algebra	Organic Chemistry with Biochemistry
Integrated General and Inorganic Chemistry	Integrated College Physics
General Zoology	Politics and Governance with the New Philippine Constitution
Philippine History: Roots and Development	Logic and Critical Thinking
Gymnastics	Science, Technology and Society
National Service Training Program	Rhythmic Activities
	National Service Training Program
<b>Second Year</b>	
Philippine Literature	Speech Communication
Human Anatomy and Physiology	General Applied Statistics with Demography
General Botany	Sociology and Anthropology with Family Planning
General Psychology	Rizal's Life, Works and Writings
Health Economics and Population Education	Health Ethics
Primary Health Care 1	Philosophy of the Human Person
Individual and Dual Sports	Computer Fundamentals 1
	Genetics
	Team Sports

of the program the students are immersed in a clinical training and expected to finish the minimum clinical treatment cases as provided by CHED. These are, but not limited, to cases in restorative dentistry, prosthodontics, maxillofacial surgery, endodontics, periodontics, and others. These clinical training courses are interspersed in to four semesters within the last two years of the DMD program. An additional three years of education is required to attain a master's degree or specialization in the various fields of dentistry.<sup>5–7</sup>

While the students may graduate with the DMD degree, they will still need to pass the rigors of the written phase and the practical phase of the DLE before they are licensed to practice dentistry in the Philippines. Passing the written phase prior to the practical phase of the DLE is a requirement. In the event that an examinee fails the written phase, taking the practical phase is not permitted, but a re-test can be sought in the next DLE. The licensure exam is held only in Manila and held twice in a year, one in May and one in December.<sup>8</sup>

Table 2  
Four-Year doctor of dental medicine curriculum. Source: College of Dentistry, Southwestern University PHINMA, June 2017

First Semester	Second Semester
<b>First Year</b>	
General Anatomy 1	General Anatomy 11
General Microanatomy & Embryology	Oral Microanatomy & Embryology
Dental Biochemistry	General Physiology with Family Planning
Oral Anatomy	Dental Materials
Dental Informatics	Dental Nutrition
Dental History & Orientation	Microbiology
	Community Dentistry 1
<b>Second Year</b>	
General Pathology	Oral Pathology 1
Pharmacology	Restorative Dentistry 11
Restorative Dentistry 1	Removable Partial Denture
Fixed Partial Denture	Complete Denture
Oral Physiology	Anesthesiology
Roentgenology	Orthodontics 1
<b>Third Year</b>	
Oral Surgery 1	Oral Surgery 11
Oral Diagnosis & Treatment Planning	Research Presentation
Endodontics	Practice Management & Entrepreneurship
Orthodontics 11	Oral Pathology 11
Methods of Research	Dental Jurisprudence & Ethics
Principles of Medicine	Pedodontics
Periodontics	Forensic Dentistry
Clinical Dentistry 1	Clinical Dentistry 2
<b>Fourth Year</b>	
Hospital Dentistry 1	Hospital Dentistry 11
Community Dentistry 11	Community Dentistry 111
Oral Surgery Seminar	Restorative Dentistry Seminar 11
Ortho-Pedo Seminar 1	Prosthodontic Seminar 11
Prosthodontics Seminar 1	Endo-Perio Seminar
Restorative Dentistry Seminar 1	Ortho-Pedo Seminar 11
Current Trends in Dentistry	Clinical Dentistry 4
Clinical Dentistry 3	Case Studies in Dental Science
Frontiers of Dental Science	

### 3. Regulation of dental practice

#### 3.1. Legal basis of dental practice

Throughout the dental profession's history in the country, there have been many legislations crafted to regulate it. (Table 3) There are two main laws promulgated by the PRC. These are RA 9484 or otherwise known as, An Act to Regulate the Practice of Dentistry, Dental Hygiene and Dental Technology in the Philippines, and PRC Board Resolution No. 14 Series of 2008 or the Code of Ethics for Dentists, Dental Hygienists, and Dental Technologists.<sup>8,9</sup>

RA9484 repealed RA4419, otherwise known as, An Act to Regulate the Practice of Dentistry in the Philippines, and for other purposes, and RA768, otherwise known as, An Act to Regulate the Practice of Dental Hygienists in the Philippines, and for other purposes. In the Implementing Rules and Regulations (IRR) of RA9484, there is a provision that stipulates, that sixty continuing professional development (CPD) units every three years are needed prior to the renewal of the Professional Identification Card (PIC). The IRR also specifies membership into the Philippine Dental Association (PDA) and of a bona fide dental chapter of the association within the dentist's area of practice as a requirement. Infection control is an important advocacy of the PDA.<sup>10</sup>

#### 3.2. Association of Southeast Nations (ASEAN) Integration

As part of the eight agreed elements of the ASEAN joint coordinating committee on dental practitioners, the Philippines has established a list of recognized basic and specialist qualifications, domestic regulations, dentist-population ratio, entry requirements, ethical code and guidelines, updates on news and events, contacts, and CPD programs.<sup>11</sup> There are six recognized specializations in the country, with each specialty being regulated by different organizations accredited by the PRC. These organizations are the Association of Philippine Orthodontists and Philippine Board of Orthodontics (Orthodontics), the Philippine Pediatric Dental Society, Inc. and the Philippine Board of Pediatric Dentistry (Pedodontics), the Endodontic Society of the Philippines and the Philippine Board of Endodontics (Endodontics), the Philippine Society of Periodontology and the Philippine Board of Periodontics (Periodontics), the Philippine Prosthodontic Society and Philippine Board of Prosthodontics (Prosthodontics), and the Philippine Board of Surgery Inc. and the Philippine College of Oral and Maxillofacial Surgeons (Oral and Maxillofacial Surgery).<sup>12</sup>

#### 3.3. Continuing professional development

Based on RA9484 and the IRR of RA10912, the dental professional will need to earn 60 CPD units for license renewal every 3 years. The second most CPD units required among the listed professions of the PRC, as most of the professionals are required only 30–45 CPD units and Accountancy with the highest at 120 CPD units.<sup>13,14</sup>

According to the passed law, this was done to enhance and upgrade the competencies and qualifications of the professionals in conjunction to the

Table 3

Dental practice related laws in the Philippines. Source: Professional Regulation Commission, December 2017

Law	Description
RA465	Standardizing examination and registration fees, and requiring professionals, including dentists, to register annually.
RA40	Providing that initial appointment in the Philippines Army Dental Corps shall be in the grade of first lieutenant
RA481	Providing for autonomy and more efficient service in the Army Dental Corps
RA546	Providing for a separate office of the Board of Examiners and making the Board of Examiners presidential appointees.
RA914	Fixing the minimum compensation of dentists and pharmacists employed by the government in positions requiring dental and pharmaceutical knowledge, respectively to the amount of 200 per month
RA1054	Rendering and consolidating Act. No. 3961 providing for free emergency dental service for employees and laborers of commercial, industrial and agricultural establishments and providing penalties for noncompliance.
RA1056	Liberalizing the use of organs or portions of the human body for medical and scientific purposes.
RA1082	Creating the position of public health dentist for every congressional district
RA1028	Completely separating the dental from the medical service of the armed forces.
RA951	Amending Republic Act No. 124 requiring private schools with at least 300 students to provide dental service
RA768	An Act to Regulate the Practice of Dental Hygienists in the Philippines
RA4419	An Act to Regulate the Practice of Dentistry in the Philippines
RA9484	An Act to Regulate the Practice of Dentistry, Dental Hygiene and Dental Technology in the Philippines
RA10912	An Act Mandating and Strengthening the Continuing Professional Development Program for All Regulated Professions, Creating the Continuing Professional Development Council, and Appropriating Funds Therefor, and for Other Related Purposes

Philippine Qualifications Framework (PQF), the ASEAN Qualifications Framework (AQF), and the ASEAN Mutual Recognition Agreement (MRA).<sup>13</sup>

Based on the IRR, the nature of the CPD programs can be categorized as formal learning, non-formal learning, informal learning, self-directed learning, on-line learning activities, and professional work experience. The law was enacted in 2016 but has been incrementally implemented, whereby the professional needs to comply 0% units from January to June 2017, 30% of the units from July to December 2017, 60% units from January to December 2018, and full implementation at 100% from January 2019 onwards.<sup>14</sup>

There were a lot of protests and online petitions against its implementation, rendering the senate to initiate a probe to revise the guidelines of the law. The issues stem from the notion that the CPD programs offered were costly and time-consuming. Other professionals who are aged or who live in far-flung areas have lesser access to continuing education opportunities.<sup>15</sup> To alleviate the issue, the senate has ordered PRC to review and amend their implementing or operational guidelines. PRC has urged both government and non-government organizations to apply as CPD providers to offer free and diverse CPD program opportunities to the professionals.<sup>16</sup>

#### 4. Conclusion

The Philippines used to have the most number of dental schools in Asia. From a 4-year program, the DMD degree is now a 6-year program with the first

2 years tagged as the pre-dental course and the last 2 years as the dental internship or the clinical learning phase. The dental schools are regulated by CHED, while the practice of dentistry and its 6 recognized specializations are being standardized by PRC. With the recent enactment of RA10912, the reforms on improvement of dental education and practice are attainable but it hasn't come without any setbacks.

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