



Egyptian Cabinet
National Authority for
Quality Assurance and Accreditation of Education



National Academic Reference Standards (NARS)

DENTISTRY

2nd Edition
2024

I. Introduction

According to the law 82-2006, the National Authority for Quality Assurance and Accreditation of Education “NAQAAE” is responsible for quality assurance of education as well as for building the confidence in, and ensuring the recognition of, the output of the Egyptian education system (Graduates/Qualifications). NAQAAE was keen, while developing the NARS with different stakeholders, to ensure that those standards benchmark with the **descriptors of level 5 qualifications bachelor’s degree on the Egyptian National Qualification Framework NQF**.

It is crucial to emphasize that the NARS are meant to be used as reference points that provide guidance in the design, delivery and review of academic programs, and are not intended by any means to represent a national curriculum in the subject. Instead, NAQAAE was keen to ensure that the NARS allow for flexibility and innovation in program design and teaching strategies, within a framework agreed by the subject community.

NAQAAE support the autonomy and academic freedom of educational institutions and acknowledge the diversity of their missions; hence, institutions are invited to consider adopting other reference points that better reflect their mission if they need to, provided that these adopted academic reference standards ARS are equal to or higher than the NARS.

The **NARS-Dentistry** are meant to express the stakeholders' expectations about the graduate of Dentistry in Egypt, defining the outcomes/competencies that holders of the qualification "Bachelor of Dental surgery (BDS)" or equivalent should exhibit.

It should be noted that the 2nd edition of NARS-Dentistry will be effective starting the academic year 2025/2026.

II. Methodology used for developing NARS

The NARS were developed through the following process:

- Establishment of the NARS development committee which constitutes a technical task force of experts.
 - Review of the literature regarding developments in specialty education, and related subject benchmarks.
 - Study of the NQF – Egypt to identify the descriptors of a bachelor's degree qualification.
 - Holding brainstorming sessions to define the outcomes/competencies of the graduate.
 - Preparing the first draft document of the NARS.
 - Getting feedback on the developed NARS from different stakeholders' representatives to refine the draft document.
 - Modifying the NARS according to the obtained feedback.
 - Approval of the developed NARS by NAQAEE's Board.
-

III. Outcomes/Competencies

Graduates are expected to have a range of personal qualities, cognitive abilities, and applied knowledge and skills; they must be able to:

1. Apply basic biological science principles in patient dental care delivery.
2. Identify the determinants of health, risk factors and behaviors that influence oral dental health.
3. Apply clinical reasoning and problem-solving skills in a reflective approach to oral health care.
4. Provide patient-centered care covering the assessment, treatment planning, management, and monitoring of the patient ([annex 1](#)); in addition to oral health and disease preventive measures; maintaining patient records, privacy, and confidentiality.
5. Recognize their role in improving the general and oral health of the community
6. Comply with ethical and legal/regulatory standards in the provision of patient-centered dental care, respecting patients' dignity, rights, and preferences.
7. Work cooperatively and communicate effectively with team members, colleagues, patients, families, and communities.
8. Demonstrate effective business, financial, and entrepreneurial skills.
9. Engage in self-directed, lifelong learning, and professional development.
10. Recognize his/her own limitations of knowledge and skills and refer patients to appropriate specialist at the appropriate stage.

Annex 1

Graduates (General Dentists) must be competent in providing patient-centered oral health care in **all stages of life**, including:

1. History taking.
2. Clinical and radiographic examination.
3. Diagnosis.
4. Treatment planning, prognosis, and informed consent.
5. Basic Local anesthesia, and pain and anxiety control.
6. Pharmacological therapy.
7. Restoration of teeth.
8. Basic Dental laboratory procedures in patient care support.
9. Replacement of teeth including fixed and removable prosthodontics
10. Non-surgical Periodontal therapy.
11. Basic Pulpal therapy.
12. Exodontia.
13. Dental emergencies.
14. Management of common medical emergencies relevant to dental practice.
15. Malocclusion diagnosis and space management.
16. Evaluation of treatment outcomes.
17. Infection control procedures.

IV. Requirements for application of NARS

***Must:** Indicates a mandatory requirement*

***Should:** Indicates a recommended requirement*

1. Curriculum:

- There **must** be a curriculum management committee that ensures:
 - Ongoing curriculum review and evaluation process which includes input from staff members, students, administration, and stakeholders.
 - Evaluation of all courses with respect to the predetermined program outcomes/competencies.
 - Elimination of unwarranted repetition outdated and unnecessary material.
 - Planning and monitoring implementation of integrated courses.
 - Incorporation of emerging didactic and clinical technologies.
- More than 60% of the contact hours of the curriculum **should** focus on the development of laboratory, preclinical and clinical skills.
- At least 10% of the total credit hours/credit points must be delivered as integrated courses
- Elective courses **must** be incorporated, at least 2% within the program credit hours/credit points.
- Non-traditional Teaching/Learning methods **must be** included, in addition to the classically used teaching methods, such as:

flipped classroom teaching method, team-based learning, case-based learning, computer-based e-learning, evidence-based learning, virtual simulation, critical appraisal of scientific evidence, assignments and/or other activities that augment self-learning (*the program must incorporate and implement just one and not all of these methods*).

- Interdisciplinary educational opportunities **should** be pursued when possible.
- Assessment of student performance **should** measure critical thinking and problem-solving skills, clinical reasoning, professionalism, decision-making, and communication skills.
- Assessment methods **must** include:
 - A. Formative assessment.
 - B. Continuous assessment: Portfolios
 - C. Summative assessment:
 - Written exams including both Objective questions (MCQ, Extended matching questions,) and Essay questions (*narrative*) not less than 30% of the written exam marks (short answer questions and modified essay questions (MEQ), and others.
 - Clinical skill exams: Objective structured clinical examination (OSCE), Objective structured practical exam (OSPE), Structured Clinical Operative Tests (SCOT), and others.
- **Program Structure**
 - The program **should** be 190 credit hours $\pm$ 10 credit hours/or equivalent credit points.
 - The program **must** include the following categories:

Biomedical Sciences	Not less than 10 % (Not less than 18 credit Hours)
Basic Dental Sciences	Not less than 8 % (Not less than 15 credit Hours)
Clinical Dental Sciences	Not less than 60 % (Not less than 108 credit Hours)
Adjunct sciences	Not less than 8 % (Not less than 15 credit Hours)
Electives	Not less than 2 % (Not less than 4 credit Hours)

- The program **should** contain the following list of subjects (*although all subjects are listed into one category, some of them relate to more than one category*):

Biomedical Sciences: General Anatomy, histology, Physiology, Biochemistry, Pharmacology, General Pathology, Microbiology and Immunology, General surgery, and General medicine.

Basic Dental Sciences: Oral Biology, Oral and Maxillofacial Pathology, Dental Biomaterials.

Clinical Dental Sciences: Dental public health (preventive dentistry), Pediatric dentistry, Orthodontics, Oral Radiology, Periodontology, Oral Medicine, Restorative Dentistry, Endodontics, Prosthodontics, and Oral and Maxillofacial Surgery.

Adjunct sciences: Ergonomics, Evidence based Dentistry, Scientific writing, Research methodology, Basic life support, Biostatistics, Infection Control, Professional ethics and communication, Health economics and practice management, others.

2. Academic and support staff (teaching, technical, administrative and support staff)

- The faculty staff/students' ratio **must** not be less than 1/25.
- Teaching assistants/students' ratio differ from department to another:

Teaching Assistants' number in educational session	Preclinical (Working in Labs)	Clinical (Working in clinic)
Biomedical Sciences	1: 25 students	
Dental Biomaterials, Oral Biology, Oral Pathology	1: 25 students	
Human Dentition	1: 25 students	
Orthodontics	1: 25 students	
Periodontology	1: 25 students	1: 8 Dental units
Oral Radiology	1: 25 students	1: 2 X-ray machines
Oral Surgery	1: 25 students	1: 8 Dental units
Fixed Prosthodontics	1: 25 students	1: 8 Dental units
Endodontics	1: 25 students	1: 8 Dental units
Pediatric Dentistry	1: 25 students	1: 8 Dental units
Removable Prosthodontics	1: 25 students	1: 8 Dental units
Operative Dentistry	1: 25 students	1: 8 Dental units
Oral Medicine		1: 10 students

- The technical staff/students' ratio **should** not be less than 1/50.
- All faculty and support staff involved in the direct provision of patient care **should** be continuously certified in basic life support (B.L.S.), including cardiopulmonary resuscitation, and be able to manage common medical emergencies.

3. Learning Facilities

Institutes **must** have the following:

- Teaching facilities that include lecture halls, classrooms, laboratories, Phantom head (simulator) laboratories, computer labs.
- Teaching dental clinics, in addition to dental operator room (OR), sterilization rooms, intraoral and panoramic radiographic units.
- Availability of adequate numbers and types of patients with different dental experiences that afford all students the opportunity to achieve program stated outcomes/competencies within a reasonable time in a safe condition.
- Provision of lockers, libraries, internet access, learning management system.
- Computer labs with a sufficient number of continuously updated computers to allow for computer-based examinations .

V. Glossary

National Academic Reference Standards (NARS)

Reference points defined by NAQAAE to outline / describe the expected minimum outcomes/competencies to fulfill the requirements of a program of study.

Academic Standards (ARS)

Reference points prescribed (defined) by an institution comprising the collective outcomes/competencies to be gained by the graduates of a particular program. The academic standards should surpass the NARS.

Competency

An observable ability of a health professional, integrating multiple components such as knowledge, skills, values, and attitudes. Since competencies are observable, they can be measured and assessed to ensure their acquisition.

General Dentist (GD)

Is a healthcare professional who should be able to evaluate, diagnose, prevent and/or treat (non-surgical, surgical or related procedures) diseases, disorders or conditions of the oral cavity within the scope of her/his education, training and experience.

VI. References

American Dental Education Association (2008) Competencies for the New General Dentist.

American Dental Education Association (2011) ADEA Foundation Knowledge and Skills for the New General Dentist.

Australian Dental Council (2016). Professional competencies

Canadian Interprofessional Health Collaborative (2010). A National Interprofessional Competency Framework

UAE Ministry of Health and Prevention (2017). General Dentist Scope of Practice.

Scope of Practice for General Dentist and Specialist Dentist, 2023

Scope of practice and clinical responsibilities of general dentists (GD) and dental specialists, 2016

QAA subject benchmarks

