



Gap Analysis
between
NARS-2009 &
NARS-2024

Quality Assurance Unit
Faculty of Dentistry - PUA

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This analysis aims to clarify the differences between the 1st edition of National Academic Reference Standards (NARS) for faculties of dentistry published in 2009, and the 2nd edition of NARS published in 2024, in order to develop the new bylaws at the faculty of dentistry- PUA and the undergraduate dental program accordingly.

Methodology:

1- Identify Reference Standards:

- **National academic reference Standards:** Review relevant standards. (NARS 2009 & NARS 2024).

- The QAU assigned the gap analysis between 1st NARS edition and 2nd NARS edition to the “Bylaw’s development committee”.
- The committee Reviewed both editions and named the points of comparison
- The main differences were categorized into the following tables
- Summary of the findings plus recommendations and actions were defined to help establish a proposal for the development of new faculty Bylaws and the educational undergraduate program.

2- Conduct a Self-Assessment:

- **Curriculum Review:** Analyze the alignment of the curriculum with reference standards.
- **Faculty Evaluation:** Assess the qualifications and training of faculty members.
- **Student Performance:** Evaluate student outcomes and satisfaction.
- **Resource Availability:** Assess the availability of resources, such as equipment, facilities, and technology.

3- Identify Gaps:

- **Compare Current Practices with National Academic Reference Standards:** Identify areas where there are discrepancies.

4- Develop an Action Plan:

- **Prioritize Gaps:** Identify the most critical gaps to address.
- **Set Specific Goals:** Establish clear and measurable goals for improvement.
- **Develop Strategies:** Create strategies to address each gap.
- **Allocate Resources:** Allocate necessary resources, including funding, personnel, and time.
- **Monitor and Evaluate:** Implement a system to monitor progress and evaluate the effectiveness of the action plan.

Comparative tables:

1- Variations in specified categories:

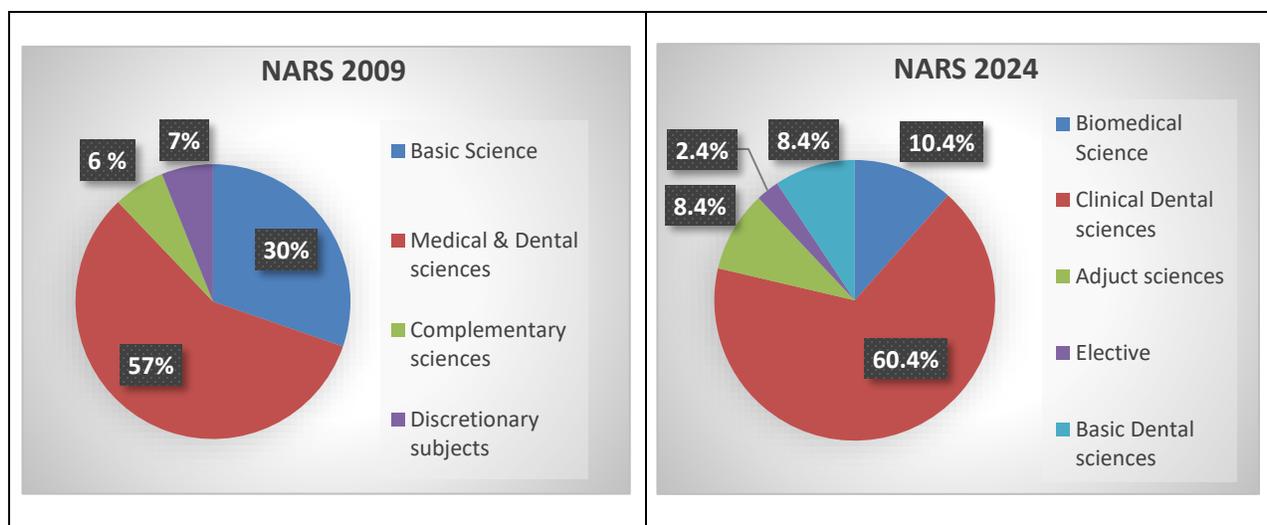
NARS-2009	NARS-2024	Action Needed
Intended learning outcomes ILOs based	Competency based	Training for staff members on competency-based outcomes
<u>Classified into:</u> - Graduate attributes (10) - Knowledge & Understanding (9) - Intellectual skills (7) - Professional & Practical skills (8) - General & transferable skills (9)	<u>Classified into:</u> - Outcome/ competencies (10) - Patient centered care in (17 items)	-Establishing a new educational program that is competency based according to the new NARS -Construct matrix of alignment between the new NARS items and new program
<u>Teaching and Assessment methods:</u> Not specified	<u>Teaching and Assessment methods:</u> Specified	-Ensure that the mandatory teaching and assessment methods are adopted -organize training for staff members
<u>Curriculum development:</u> No specific mechanism is mentioned	<u>Curriculum development</u> A curriculum development committee MUST ensure specific steps for evaluation & monitoring	Establish a new committee from the faculty members and stakeholders and specify its role
<u>Pre-clinical and clinical</u>	<u>Pre-clinical and clinical</u>	Ensure that pre-clinical

<u>subjects</u> Not specified	<u>subjects</u> Specified	and clinical subjects are as stated in new NARS
<u>Integration of Evidence-Based Practices:</u> Not specified	<u>Integration of Evidence-Based Practices:</u> Specified	Ensure students taught to critically evaluate scientific literature and apply evidence-based practices in their clinical work.
<u>Interprofessional Education (IPE):</u> Not specified	<u>Interprofessional Education (IPE):</u> Specified	Opportunities should be provided for collaboration with other healthcare professionals in areas such as health economics.
<u>Integrated courses</u> Not specified	<u>Integrated courses</u> Specified	At least 10% of credit hours must be delivered as integrated courses
<u>Research:</u> Not specified	<u>Research:</u> Specified	Students to be encouraged to participate in research projects under the guidance of faculty mentors.
<u>Assessment methods</u> Not specified	<u>Assessment methods</u> Specified	Should measure critical thinking and problem-solving skills, clinical reasoning, professionalism, decision-making, and communication skills.
<u>Staff student ratio:</u> Not specified	<u>Staff student ratio:</u> Preclinical 1:25 Clinical 1:8	Auditing of staff to students' ratio in each subject according to the specified numbers in NARS

<u>Basic life support certification for staff</u> Not mentioned	<u>Basic life support certification for staff</u> Should be continuously certified	Regular trainings + certification for staff and supporting staff on: Basic life support, Cardiopulmonary resuscitation, Medical emergencies
<u>Learning facilities</u> Not specified	<u>Learning facilities</u> Specified	All available.

1- Program structure:

NARS 2009		NARS 2024	
Category of courses	CH (percentage)	Category of courses	CH (percentage)
Basic sciences	28% - 32%	Biomedical sciences	≥ 18 CH (10%)
		Basic Dental sciences	≥ 15 CH (8%)
Medical & Dental sciences 1- Didactic 2- Laboratory & clinical	21% - 25% 33% - 37%	Clinical Dental sciences	≥ 108 CH (60%)
Complementary sciences	5% - 8%	Adjunct sciences	≥ 15 CH (8%)
Discretionary	6% - 8%	Electives	≥ 4 CH (2%)
Total	100%	Total	98%



3- Curriculum

NARS-2009		NARS-2024		LAB/CLNC
Physics	Basic science	--	--	
Chemistry		--	--	
Bioscience		--	--	
Growth & Genetics		--	--	
Biochemistry		Biochemistry	Biomedical science	LAB
Microbiology & Immunology		Microbiology & Immunology		LAB
General Anatomy		General Anatomy		LAB
Histology		Histology		LAB
Physiology		Physiology		LAB
Pharmacology		Pharmacology		LAB
General Pathology	General Pathology	LAB		
General Medicine	Medical science	General Medicine		LAB
General Surgery		General Surgery		LAB
Oral Physiology	Basic science	--		--
Dental Anatomy		Human dentition	Basic dental science	LAB
Oral Biology		Oral Biology		LAB
Oral & maxillofacial Pathology		Oral & maxillofacial		LAB

		Pathology				
Dental Biomaterials		Dental Biomaterials		LAB		
Restorative Dentistry	Dental science	Restorative Dentistry	Clinical dental science	LAB/CLNC		
Prosthodontics		Prosthodontics		LAB/CLNC		
Oral & Maxillofacial Surgery & General Anesthesia		Oral & Maxillofacial Surgery		LAB/CLNC		
Diagnostic sciences		--		--		
Oral Medicine		Oral Medicine		CLNC		
Oral & Maxillofacial radiology		Oral Radiology		LAB/CLNC		
Periodontics		Periodontology		LAB/CLNC		
Endodontics		Endodontics		LAB/CLNC		
Orthodontics		Orthodontics		LAB		
Pediatric Dentistry		Pediatric Dentistry		LAB/CLNC		
Public health and community dentistry		Dental Public Health (preventive dentistry)				
IT		Complementary science		--	--	
Behavioral science		Complementary science		Professional ethics & communication	Adjunct sciences	
Law, ethics and professionalism	Infection control					
--	--	Ergonomics				
--	--	Evidence based dentistry				
--	--	Scientific writing				
--	--	Research methodology				
--	--	Basic life support				

--	--	Biostatistics		
--	--	Health economics and practice management		
--	--	Others		
Not specified	Discretionary	Not specified	Elective	

Summary:

The new NARS 2024 is competency based; it also specified several items that were not mentioned in the previous edition for example:

- A curriculum management committee must be established and have specific role in evaluation and monitoring of courses.
- The teaching/ learning methods that should be adopted,
- The assessment methods used and their weights
- The program structure, with the different categories of subjects and their percentage in the program
- Specifying pre-clinical and clinical courses and the specifying the min accepted faculty to student ratio
- All faculty and support staff involved in the direct provision of patient care **should** be continuously certified in basic life support (B.L.S.),
- The learning facilities needed in each institute are mentioned.

Recommendations:

- Program structure and curriculum:
 - 1- Elimination of the Basic science courses that are science based (Physics, Chemistry, Biology, Botany and Genetics)
 - 2- Reduce the number of Credit Hours allocated to the medical science courses to be around 15 CH 10% of the total CH.
 - 3- More than 60% of the contact hours of the curriculum should focus on the development of laboratory, preclinical and clinical skills.
 - 4- Add the recommended Adjunct courses mentioned by the NARS
 - 5- Add new advanced elective courses that help enhance students' skills to cover 2% of total CH.

6- At least 10% of the total credit hours/credit points must be delivered as integrated courses