



DOW UNIVERSITY OF HEALTH SCIENCES

SCHOOL OF POSTGRADUATE STUDIES

PROGRAM SPECIFICATION – PHD IN DENTAL MATERIAL

Introduction of Institute & Program

The PhD Program in Science of Dental Materials at Dow University of Health Sciences is designed to produce outstanding researchers and academicians with exceptional skills in the development of advanced materials for dental applications. This program involves various interdisciplinary areas, namely materials science, biomedical engineering, chemistry and clinical dentistry to address serious challenges in dental sciences through innovative and novel research.

The scope of the program includes the evaluation of characteristics and behavior of distinct restorative, prosthodontic, endodontic, adhesive and emerging dental biomaterials. Biocompatibility, antimicrobial efficacy, physico-mechanical performance, aesthetics and biodegradability of dental biomaterials are the main themes of this program.

This program is in line with Pakistan's national priorities of improving research facilities, encouraging self-sufficiency in biomedical invention, and enhancing healthcare outcomes. Graduates will be prepared to assume leadership positions in academia, research and development, and materials manufacturing industries, thus contributing to the development of dental technology in the country.

Course Title (As approved by PM&DC/HEC)

PhD in Science of Dental Materials

Course Duration

3-8 Years

Type of Study

Full-time

Study System

Semester System

Total Credit Hours

54



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Credit Hours Distribution –Semester Wise	Semester I = 12 Semester II = 12 Semester III-VIII = 30 (Thesis)
Study Hours Distribution	Study per Semester = 16 weeks Examination = 2 weeks Semester Break = 2 weeks Working Days = 8:30 am - 3:00 pm (except Friday)
Teaching Hours Distribution	Lecture hours/ Facilitation / Self Directed Studies/ Lab training
Modules Detail with Credit Hours	See Annexure I
Assessment of Student	Continuous Internal Assessment = 30 % Final Examination = 70% Total = 100%
Teaching Institution	School of Postgraduate Studies
Degree Awarding Institution	Dow University of Health Sciences



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ANNEXURE 1

COURSE CODE	COURSE TITLE	CREDIT HOURS
SEMESTER-I		
HBMS 802	Research Methodology	03
HBMS 805	Epidemiology	03
HBMS 807	Biostatistics in Health & Medicine	03
HBMS 806	Research & Teaching Skills	03
SEMESTER CREDIT HOURS TOTAL		12
SEMESTER-II		
HBMS 801	Medical Genetics & Molecular Medicine	03
HBMS 803	Fundamentals of Molecular Biology	03
HBMS 804	Research Instrumentation & Techniques	03
DEMS 801	Advance Dental Biomaterials	03
SEMESTER CREDIT HOURS TOTAL		12
COMPREHENSIVE EXAMINATION		
SEMESTER III-VIII		
HBMS 899	Synopsis development, submission and approval	30
	Research Work	
	Submission of Thesis	
TOTAL CREDIT HOURS		54