# B.Sc. in Allied Dental Sciences

## Study Plan

### University Compulsory Courses

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**TOTAL:** 129 C.H

*For prerequisite & equivalent courses see the Courses’ Description.*
B.Sc. in Allied Dental Sciences

Courses' Description

**ADS 201 Dental Morphology and Occlusion 3 C.H (1 theory, 2 practical)**
- An Introduction to tooth morphology with
- Emphasis on developing students' knowledge in tooth structures and shapes, and various classification of dental occlusion.
- Students will apply what they learn in the lecture in a lab using wax, and other dental instruments; therefore, they will be knowledgeable about tooth structure, shape, and classification.
  (Prerequisite: ADS 102 or corequisite)

**ADS 203 Dental Materials 3 C.H (2 theory, 1 practical)**
- An Introduction to dental materials with emphasis on those restorative and impression materials and techniques commonly used in dental practice and which may be required for use by the dental hygienist.
- Overview of current trends in dental materials is presented.
  (Prerequisite ADS 102 or co-requisite)

**ADS 204 Oral pathology 2 C.H: theory**
- Principles of the disease process and general pathology including pathogenesis, injury, inflammation, neoplasia and circulatory disturbances are followed by the study of pathology of the teeth, supporting and associated oral structures.
  (Prerequisite: MED 218)

**ADS 220 Oral Microbiology 2 C.H: theory**
- Emphasizes the microbiological and immunological factors impacting not only the oral environment but the entire human body.
- Emphasis is placed on aspects of microbiology and immunity clinical application which will include some laboratory experiences.
  (Prerequisite: MED 218)

**ADS 222 Oral Histology 2 C.H: theory**
- Introduces to oral histology with emphasis on developing student's knowledge in oral histology, which includes structural and functional development of hard and soft tissues in the oral cavity, which may help students during patient treatment.
  (Prerequisite: MED 218)

**ADS 224 Oral Biochemistry 2 C.H; theory**
- Study of biochemistry at the molecular level, complex chemical structures and reactions that determine biological processes such as metabolism, disease, reproduction and growth, and their regulation through chemical messenger-receptor interactions in the immune, endocrine and nervous systems related to dental and oral tissues.
  (Prerequisite: MED 218)

**ADS 224 Oral Biochemistry 2 C.H; theory**
- Study of biochemistry at the molecular level, complex chemical structures and reactions that determine biological processes such as metabolism, disease, reproduction and growth, and their regulation through chemical messenger-receptor interactions in the immune, endocrine and nervous systems related to dental and oral tissues.
  (Prerequisite: MED 218)

**ADS 305 Care of Dental Unit & Sterilization 2 C.H (1 theory, 1 practical)**
- Emphasis on the sterilization methods used to care of dental unit, the role of dental assistant in infection control application, and sterilization methods, studying of different species of microorganisms, and the new methods available for this purpose.
  (Prerequisite: ADS 220)

**ADS 306 Pharmacology for Allied Dental Sciences Students 1 C.H: theory**
- A study of the pharmacologic and therapeutic agents used in oral healthcare, their preparation, effects, side effects, and application.
  (Prerequisite: MED 230a)

**ADS 308 Medical Conditions Related to Dentistry 1 C.H: theory**
- A study of systemic and medical conditions with emphasis on the prevention and management of medical emergencies in the oral care setting.
  (Prerequisite: MED 230a)

**ADS 313 Removable Prosthodontics 2 C.H (1 theory, 1 practical)**
- Introduces students to dental materials used in removable prosthodontics.
- Emphasis is on fundamental and practical competencies in the various clinical dental assisting techniques in prosthodontics and in producing removable prostheses. In addition, it provides practical training in the lab and dental clinic.
  (Prerequisite ADS 203)

**ADS 315 Anesthesia and Oral surgery 2 C.H (1 theory, 1 practical)**
- An introduction to the fundamental principles of anesthetic agents, dental materials and instruments used in oral and maxillofacial surgery.
- Emphasis is on the development of dental assistant knowledge and training in the various clinical oral surgery and emergency procedures.
  (Prerequisites: MED 219 or co- requisite)

**ADS 317 Pediatric Dentistry 2C.H (1 theory, 1 practical)**
- An introduction to dental materials and instruments used in pedodontics and various methods in behavior management of children,
- Emphasis on the development of dental assisting knowledge and skills in pedodontics.
  (Prerequisite: ADS 203)

**ADS 319 Orthodontics 2 C.H (1 theory, 1 practical)**
- An introduction to dental materials and instruments used in orthodontics
- Emphasis on the development of dental assisting knowledge in orthodontics and orthodontic appliances including fixed and removable appliances.
  (Prerequisite: ADS 201)
ADS 335 Restorative Dentistry 2 C.H  
* (1 theory, 1 practical)  
- An introduction to operative dentistry, crown and bridge work, and root canal therapy  
- Emphasis on the fundamentals of dental sciences and the role of the dental assistant in restorative dentistry clinical techniques.  
*(Prerequisite: ADS 203)*

ADS 345 Oral Medicine 2 C.H  
* (1 theory, 1 practical)  
- Principles of the disease process and general pathology including pathogenesis, injury, inflammation, neoplasia and circulatory disturbances followed by the study of pathology of the teeth, supporting and associated oral structures. Emphasis is on the clinical and radiological appearance of local and systemic disease processes affecting the oral and facial structures and how to describe and document oral and dental diseases in a patient file.  
*(Prerequisite: ADS 204 and ADS 222)*

ADS 351 Dental Radiology I 2 C.H  
* (1 theory, 1 practical)  
- Study of the nature and production of x-rays and basic principles and procedures in dental radiology.  
- Emphasis is on radiation physics, radiation biology, radiation protection, basic intraoral radiographic techniques and film processing and mounting procedures. *(Prerequisite: none)*

ADS 352 Dental Radiology II 3 C.H  
* (1 theory, 2 practical)  
- Continued development of the principles and techniques obtained in dental radiology I with emphasis on supplemental intraoral techniques, extraoral techniques and localization techniques, radiographic interpretation, and management topics including a quality assurance and film and equipment design, selection, maintenance and care.  
*(Prerequisites: ADS 351)*

ADS 363 Periodontology I 2 C.H  
* (1 theory, 1 practical)  
- Knowledge of the role of dental plaque biofilm and other risk factors in the etiology of periodontal diseases, microbiology of periodontal diseases, pathogenesis of periodontal diseases, classification and sequel of periodontal diseases.  
- Emphasis is on development of assisting competencies in the various periodontal treatment procedures.  
*(Prerequisite: ADS 222, MED 219)*

ADS 364 Periodontology II 2 C.H  
* (1 theory, 1 practical)  
- Continued development of the basic knowledge of the role of dental plaque biofilm and other risk factors in the etiology of periodontal diseases, pathogenesis of periodontal diseases, diagnosis, classification of periodontal diseases, assessment of periodontal parameter, surgical and nonsurgical periodontal therapy, implantology, and dental implant in the clinical sessions  
*(Prerequisite: ADS 363)*

ADS 372 Clinical Allied Dental Sciences I 3 C.H  
* (practical)  
- Clinical experience at Jordan University of Science and Technology supervised dental clinics.  
- Five clinical sessions per week each lasts three hours, students are required to assist dental students in all fields of dentistry.  
- Students will be familiarized with most dental procedures and be prepared to prevent and manage dental procedures during a clinical setting.  
*(Prerequisite: ADS 335, ADS 313)*

ADS 382 Introduction to Dental Hygiene 3 C.H  
* (1 theory, 2 practical)  
- Practical application of the fundamental concepts, theories, and principles of dental hygiene practice.  
- Emphasis is placed on mastering basic skills necessary for providing dental hygiene services to clients including dental hygiene process of care and basic instrumentation. Students must successfully complete this pre-clinical practice to move to the clinical aspect of the program where they start providing dental hygiene services to patients.  
*(Prerequisite: ADS 364 or corequisite)*

ADS 441 Oral Epidemiology (2 C.H: theory)  
- Introduction to the principles of dental public health, oral epidemiology, prevention and control of oral disease on a community basis, and community dental health services. Emphasis is on program assessment, planning, implementation, and evaluation for the development of community dental programs. *(Prerequisite: none)*

ADS 447 Preventive Dentistry 2 C.H  
* (1 theory, 1 practical)  
- An introduction to the theoretical foundations of preventive and therapeutic oral health services used in the dental hygiene process.  
- Emphasis is on development of clinical competencies on the basic preventive methods used in dental hygiene.  
*(Prerequisite: ADS 303)*

ADS 449 Community oral health (1 C.H: practical)  
- Emphasis is on development of clinical competencies on the basic preventive methods used in dental hygiene and oral health education, application of different methods of community oral health education and activities.  
*(Prerequisite: "ADS 447, ADS 441" or corequisite)*

ADS 463 Dental Office management (1 C.H: theory)  
- Emphasis on the new computerized dental office management and also file management of patients. *(Prerequisite: none)*

ADS 471 Clinical Allied Dental Sciences II 3 C.H  
* (practical)  
- Clinical experience at Jordan University of Science and Technology supervised dental clinics.  
- Continued development of the clinical dental assisting competencies in periodontics, prosthetics, conservative dentistry, orthodontics, pedodontics of children in the clinic, and pediatric dentistry treatment under general anesthesia of patient with special need in hospitals and oral and maxillofacial, implant surgery.  
*(Prerequisite: ADS 372)*

ADS 472 Expanded Duties of Dental Assistant 5 C.H  
* (practical)  
- Clinical experience at Jordan University of Science and Technology supervised dental clinics.  
- Continued development of the clinical dental assisting competencies in periodontics, prosthetics, conservative dentistry, orthodontics, pedodontics and oral surgery with emphasis on the treatment of patients with special needs.  
*(Prerequisite: ADS 471)*
ADS 481  Clinical Oral Hygiene I  4 C.H  
(1 theory, 3 practical)
- Clinical experience at Jordan University of Science and Technology supervised dental clinics. Development of clinical proficiency and decision making in providing comprehensive preventive oral health services.
- Emphasis is on clinical application and development of dental hygiene competencies.  
(Prerequisite: ADS 382 MED 302)

ADS 482  Clinical Oral Hygiene II  (5 C.H practical)
- Clinical experience at Jordan University of Science and Technology supervised dental clinics. Continued development of clinical proficiency and decision-making in providing comprehensive, evidence-based preventive oral health services.
- Emphasis is on clinical competencies and development of skills necessary for the treatment patients with special needs using the dental hygiene process of care.  
(Prerequisite: ADS 481)

ADS 493  Research Methodology and Research Project  (1 C.H: practical)
- Designed to develop skills in scientific methods and critical analysis of research findings.
- Emphasis is on types of research, problem selecting and hypothesis writing, research planning and design, data collection and measuring techniques, analysis and interpretation data.
- A written research paper is required at the end of this course; student must submit 3 copies of the research proposal to the department and then present and defense it in front of their faculty members and other students using data show presentation.  
(Prerequisite: PH 311 or corequisite)