

JODHPUR DENTAL COLLEGE AND GENERAL HOSPITAL
DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY

AIM OF THE COURSE

KNOWLEDGE, SKILLS, ATTITUDE AND COMMUNICATION ABILITIES.

ON COMPLETION OF 3 YEARS OF PG COURSE THE STUDENT SHOULD BE ABLE TO-

- 1. Develop knowledge of etiopathology, diagnosis and treatment planning of major and minor surgical procedures.**
- 2. Be competent in performing surgical procedures.**
- 3. Thorough knowledge of infection control, sterilization and asepsis along with safe disposal of hospital wastes.**
- 4. To adopt ethical principles in all aspects of surgical procedures regardless of caste, creed, religion and social of the patient.**
- 5. Should be able to communicate with the professional colleagues and the patients explaining various surgical procedures available.**

SYLLABUS FOR MDS COURSE

FIRST YEAR MDS

APPLIED BASIC SCIENCES

A) APPLIED ANATOMY

- 1.SURGICAL ANATOMY OF THE SCALP, TEMPLE AND FACE
- 2.ANATOMY OF THE TRIANGLES OF NECK AND DEEP STRUCTURE OF THE NECK
- 3.CRANIAL AND FACIAL BONES AND ITS SURROUNDING OF SOFT TISSUE WITH ITS APPLIED ASPECTS IN MAXILLOFACIAL INJURIES
- 4.MUSCLES OF HEAD AND NECK

5. ARTERIAL SUPPLY , VENOUS DRAINAGE AND LYMPHATICS OF HEAD AND NECK
6. CONGENITAL ABNORMALITIES OF THE HEAD AND NECK
7. SURGICAL ANATOMY OF THE CRANIAL NERVES.
8. ANATOMY OF THE TONGUE AND ITS APPLIED ASPECTS
9. SURGICAL ANATOMY OF THE TEMPORAL AND INFRATEMPORAL REGION
10. ANATOMY AND ITS APPLIED ASPECT OF SALIVARY GLAND, PHARYNX, THYROID AND PARATHYROID GLAND, LARYNX TRACHEA ESOPHAGUS
11. TOOTH ERUPTION MORPHOLOGY AND OCCLUSION
12. SURGICAL ANATOMY OF NOSE
13. THE STRUCTURE AND FUNCTION OF THE BRAIN INCLUDING SURGICAL ANATOMY OF INTRA CRANIAL VENOUS SINUSES
14. AUTONOMOUS NERVOUS SYSTEM OF HEAD AND NECK
15. FUNCTIONAL ANATOMY OF MASTICATION, DEGLUTITION , SPEECH, RESPIRATION AND CIRCULATION .
16. DEVELOPMENT OF FACE , PARANASAL SINUSES AND ASSOCIATED STRUCTURE AND THEIR ANOMALIES
17. TMJ: SURGICAL ANATOMY AND FUNCTION

B) APPLIED PHYSIOLOGY:

- a) Digestive System- Mastication, deglutition, digestion and assimilation, , Physiology of saliva – composition, function, clinical significance.
- b) Blood- Composition, volume, function, blood groups, haemostasis, coagulation, blood transfusion, circulation, heart, pulse, blood pressure, blood dyscrasias and management.
- c) Respiration- Control of ventilation, anoxia, hypoxia, asphyxia, artificial respiration.

- d) Endocrinology – general principles of endocrinal activity and disorders relating to pituitary, thyroid, parathyroid, adrenals including pregnancy and lactation.
- e) Nervous System- Physiology of pain, sympathetic and Para sympathetic nervous system, pain pathways. Hypothalamus and mechanism of controlling body temperature.
- f) Cardiovascular System- Cardiac cycle, shock, Heart sounds, Blood Pressure and Hypertension.
- g) Nutrition- Fluid and electrolyte balance in maintaining hemostasis and significance in major and minor surgical procedures, Clinical significance of vitamins, balanced diet, protein energy malnutrition, Marasmus, Kwashiorkor

C.) BIOCHEMISTRY

- a) General principles governing the various biological activities of the body such as osmotic pressure, electrolytic dissociation, oxidation, reduction etc
- b) Carbohydrates, proteins, lipids and their metabolism
- c) Hormones
- d) Nucleoproteins, nucleic acid and their metabolism.
- e) Detoxification in the body.
- f) Antimetabolites
- g) Enzymes, vitamins and minerals
- h) Metabolism of inorganic elements, detoxification in the body

D) PATHOLOGY:

- a) Inflammation, repair, degeneration, necrosis and gangrene.
- b) Circulatory disturbances – ischemia, hyperemia, edema, thrombosis, embolism, infarction,
- c) Allergy and hypersensitivity reaction.
- d) Neoplasms – classifications of tumors, characteristics of benign and malignant tumors, Spread of tumors.
- e) Chromosomal abnormalities- Marfan's Syndrome, Ehler's Danlos Syndrome,
- f) Others- AIDS, Management of immune deficiency patients requiring surgical procedures.
- g) Tuberculosis

E) ORAL PATHOLOGY

- a) Developmental disturbances of oral and para oral structures
- b) Regression changes of teeth
- c) Bacterial, viral, mycotic infections of the oral cavity
- d) Disease of jaw bones and TMJ
- e) Salivary gland diseases
- f) Cysts of oral cavity
- g) Role of laboratory investigations in oral surgery
- h) Dental caries, Diseases of pulp, periapical pathology.
- i) Physical and Chemical injuries of oral cavity

F) MICROBIOLOGY

- a) Immunity
 - b) Hepatitis B and its prophylaxis
 - c) Culture and sensitivity test
 - d) Urine analysis and culture
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- e) Infections, microbes or relevance to dentistry – strepto, staphylococci, lactobacilli, cornyebacterium, actinomycetes, clostridium, neisseria, vibrio, bacteriods, fusobacteria, spirochetes, mycobacterium, virus and fungi
- f) Cross infection, infection control, infection control procedure, sterilization and disinfection
- g) Blood groups, Blood matching, RBC and WBC count.

G) PHARMACOLOGY

- a) Dosage and route of administration of drugs, actions and fate of drug in body, drug addiction,
- b) tolerance of hypersensitivity reactions.
- c) Local anesthesia – agents and chemistry, pharmacological actions, fate and metabolism of
- d) anaesthetic, ideal properties, techniques and complications.

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- e) General anesthesia – pre medications, neuro muscular blocking agents, induction agents,
 - f) inhalation anesthesia, and agents used, assessment of anesthetic problems in medically compromised patients.
 - g) Anaesthetic emergencies
 - h) Antihistamines, corticosteroids, chemotherapeutic and antibiotics, drug resistance
 - i) Haemostasis, and haemostatic agents, anticoagulants, sympathomimetic drugs.
 - j) Vitamins and minerals (A, B, C, D, E, K IRON), anti sialogogue, immunosuppressants, drug interactions
 - k) Antiseptics, disinfectants, anti viral agents, drugs acting on CNS.

Second year M.D.S.

A) Minor oral surgery-

- 1) Basic principles of surgery
- 2) Examination diagnosis and treatment planning
- 3) Medical emergencies: prevention and management
- 4) Hemorrhage and shock
- 5) Exodontia
- 6) Impaction ‘
- 7) Surgical aids to eruption of teeth
- 8) Transplantation of teeth
- 9) Surgical endodontics
- 10) Preprosthetic surgery
- 11) Procedures to improve alveolar soft tissues
- 12) Infections of head and neck
- 13) Chronic infections of the jaws
- 14) Maxillary sinus
- 15) Cysts of the orofacial region
- 16) Neurological disorders of the maxillofacial region
- 17) Implantology
- 18) Anesthesia – Local anesthesia and general anesthesia

B) Trauma

- 1) Surgical anatomy of the head and neck
- 2) Etiology of injuries
- 3) Primary care in trauma
- 4) Examination and diagnosis
- 5) Soft tissue injuries of face and scalp
- 6) Dentoalveolar fracture
- 7) Mandibular fracture
- 8) Fracture of zygomatic fracture
- 9) Orbital fracture
- 10) Nasal fracture
- 11) Fractures of middle third of third facial skeleton
- 12) Ophthalmic injuries
- 13) Traumatic injuries of frontal sinus
- 14) Maxillofacial injuries in geriatric and pediatric patients
- 15) Gun shot wound and war injuries
- 16) Osseointegration in maxillofacial reconstruction
- 17) Metabolic response to trauma
- 18) Healing of traumatic injuries
- 19) Nutritional consideration following trauma
- 20) Tracheostomy

THIRD YEAR M.D.S

- 1) SALIVARY GLANDS AND ITS DISORDERS
- 2) TEMPORALMANDIBULAR JOINT AND DISORDERS
- 3) ONCOLOGY
- 4) ORTHOGNATIC SURGERY
- 5) CYSTS AND TUMOURS OF ORO FACIAL REGION
- 6) LASER SURGERY
- 7) CRYOSURGERY
- 8) CLEFT LIP AND PALATE SURGERY
- 9) AESTHETIC FACIAL SURGERY
- 10) CRANIOFACIAL SURGERY

TEACHING / LEARNING ACTIVITIES:

The following is the minimum required to be completed before the candidate can be considered eligible to appear for final MDS exam.

First year MDS

A. FIRST TERM

- Anatomic dissection
- Basic Sciences and Computer Sciences
- Computer Sciences
- Exodontia
- Seminars on Basic Topics
- Selection of Dissertation Topic
- Library Assignment Topic
- Attending O.T And Ward Rounds
- Preparation Of Synopsis and its submission within the six months after admission to the university as per calendar of events.

B. SECOND TERM

(Rotation and postings in other department)

Oncology	2 Months
Emergency	1 Month
General Medicine	15 Days
General Surgery / Anesthesia	15 Days
Ophthalmology	15 Days
Neurology	15 Days
ENT	15 Days
Orthopedic	15 Days

Note - Examination of basic sciences – One paper of three hours duration to be conducted by the college.

Second Year MDS

- Minor Oral Surgery and Higher surgical Training.
- Submission of Library Assignment by the end of First Term.
- Examination on Minor Oral Surgical Procedures – One paper of three hours duration to be conducted by the college.

Third Year MDS

- Maxillofacial Surgery, Submission of dissertation in the First Term i.e. six months before the Final Examination to the university.
- Examination of three hours duration three months before the Final Examination to be conducted by the college. It is desirable to enter general surgical skills and operative procedure that are observed, assisted or performed in the log book in the format as given by RGUHS in the revised ordinance governing MDS degree Course.

Final Examination at the end of the Third Year.

Sl. No.	Procedure	Category	Year	Number
1.	Injection of I.M. and I.V.	PI	I,II	50, 20
2.	Minor Suturing and removal of Sutures	PI	I	N, A
3.	Incision And Drainage of an Abscess	PI	I	10
4.	Surgical Extraction	PI	I	15
5.	Impacted teeth	PI, PA	I, II	20,10
6.	Pre- Prosthetic Surgery- Corrective Procedures, Ridge Extension, Ridge Reconstruction	PI PI PA A	I I, II II, III	15 3 3
7.	OAF Closure	PI, PA	I, II	3, 2
8.	CYST enucleation	PI, PA	I, II	5,5
9.	Mandibular Fractures	PI, PA	I, II	10, 10
10.	Peri- Apical Surgery	PI, PA	I	5
11.	Infection Management	PI, PA	I, II	N, A
12.	Biopsy Procedures	PI	I, II	N, A
13.	Removal of Salivary Calculi	PA	I,II	3, 5
14.	Benign Tumors	PA, A	II, III	3, 3
15.	Mid face Fractures	PA, A	II, III	3, 5
16.	Implants	PA, A	II, III	5, 5
17.	Tracheostomy	PA, A	II, III	2,2
18.	Skin Grafts	PA	III	3,5
19.	Orthognathic Surgery	PA, A	II, III	3

20.	Harvesting Bone and Cartilage Grafts A) Iliac Crest B) Rib C) Calvarial D) Fibula	PA A A A, O	III III III III	3,5 3 2 2
21.	T. M. Joint Surgery	PA, A	II, I	1
22.	Jaw Resections	PA, A	III, II	3, 3
23.	Onco Surgery	A, O	III, III	3, 3
24.	Micro vascular Anastomosis	A, O	III	5,10
25.	Cleft Lip and Palate	PA, A	II, III	10, 15
26.	Distraction Osteogenesis	A, O	II, III	2, 3
27.	Rhinoplasty	A, O	III	3, 5
28.	Access Osteotomies and Base of Skull Surgeries	A, O	III	1, 3

Note - PI – Performed Independently

PA – Performed Procedure under the direct supervision of a senior specialist.

A – Assist a senior

O – Washes up And Observes

TENTATIVE PERIOD FOR SUBMISSION OF POST GRADUATE WORK

S.NO.	WORK DONE	TIME DURATION
1,	ALLOTMENT OF PRE CLINICAL WORK	1 WEEK OF JOINING OF PG COURSE
2.	ALLOTMENT OF LIBRARY DISSERTATION	4 WEEKS OF JOINING OF PG COURSE
3.	ALLOTMENT OF DISSERTATION	6 WEEKS OF JOINING OF PG COURSE
4.	SUBMISSION OF SYNOPSIS	6 MONTHS AFTER STARTING OF PG COURSE
5.	SUBMISSION OF LIBRARY DISSERTATION	1 YEAR AFTER ALLOTMENT
6.	SUBMISSION OF DISSERTATION	6 MONTHS BEFORE THE UNIVERSITY EXAMS
7.	PRE UNIVERSITY EXAMINATION	3 MONTHS BEFORE THE UNIVERSITY EXAMS

1. ONE POSTER AND TWO PAPER PRESENTATION IN ANY OF NATIONAL SPECIALITY CONFERENCE

2. ONE PUBLICATION 6 MONTHS BEFORE THE END OF PG COURSE

EXAMINATION PATTERN

A. THEORY MAXIMUM MARKS-300

S.NO	PAPER	CONTENT	MARKS
1.	I	BASICS AND ALLIED SCIENCES	75
2.	II	MINOR ORAL SURGERY AND TRAUMA	75
3.	III	MAJOR ORAL AND MAXILLOFACIAL SURGERY	75
4.	IV	ESSAY	75

Paper –I : Applied Basic Sciences: Applied anatomy, Physiology, Biochemistry, General & Oral Pathology and Microbiology and Pharmacology.

Paper – II : Minor Oral Surgery and Trauma

Paper – III : Maxillofacial Surgery

Paper – IV : Essay

B.PRACTICAL EXAMINATION - MAXIMUM MARKS 300

S.NO	DAYS	CONTENT	MARKS
1.	DAY 1	A.MINOR SURGICAL PROCEDURE(REMOVAL OF IMPACTED THIRD MOLAR)	50
		B.CHAIR SIDE VIVA	40
		C.MINOR AND MAJOR CASE PRESENTATION	60
2.	DAY 2	A.DISSERTATION PRESENTATION	30
		B.PEDAGOGY	20
		C.GRAND VIVA	100