



**FATIMA JINNAH DENTAL COLLEGE HOSPITAL**

**STUDY GUIDE**

**Final Prof BDS 2026**

**NAME:** \_\_\_\_\_

**BATCH:** \_\_\_\_\_ **ROLL NO:** \_\_\_\_\_

# FATIMA JINNAH DENTAL COLLEGE



## Vision

Fatima Jinnah Dental College aspires to advance oral health locally and globally by cultivating compassionate, scholarly, and competent dental professionals who serve communities with purpose, uphold clinical excellence, embrace inclusivity, and improve access to care.

## Mission

To educate and empower socially responsible, compassionate, and ethical dental professionals through a globally aligned and inclusive curriculum that emphasizes clinical excellence, scholarly advancement, leadership development, and purposeful community engagement.

  
Prof. DR. BABUR ASHRAF  
B.D.S., FCPS, MORTH (RCS)  
Principal  
Fatima Jinnah Dental College  
Karachi-Pakistan





## **BDS Program Outcomes**

**Upon successful completion of the 4-year BDS program, the FJDC graduates will be able to:**

1. **PO 1 – Clinical Excellence**  
Demonstrate clinical excellence by accurately diagnosing and managing dental conditions through the integration of basic and clinical sciences, evidence-based practices, and appropriate use of technology.
2. **PO 2 – Scholarship**  
Engage in scholarly inquiry by applying research methodologies to generate evidence, critically appraise literature, and contribute to the advancement of dental knowledge and clinical practice.
3. **PO 3 – Leadership, Communication, and Collaboration**  
Exhibit ethical leadership, effective communication, and collaborative decision-making to enhance team-based dental care and contribute positively to professional practice.
4. **PO 4 – Community Advocacy**  
Advocate for oral health promotion and disease prevention to enhance individual and community well-being.
5. **PO 5 – Professionalism, Ethics, and Cultural Sensitivity**  
Demonstrate ethical practice, accountability, cultural competence, and a commitment to patient-centered care, professional development, and personal integrity.
6. **PO 6 – Technological Adaptability and Lifelong Learning**  
Adapt to evolving dental technologies and innovations by embracing a mindset of lifelong learning, digital fluency, and reflective practice to continuously enhance clinical effectiveness and professional growth.

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## **INTRODUCTION**

Study Guide: A guide book is created to facilitate learning, provide direction and point out required critical information to students to maximize the benefit each student can attain from the academic program.

This book will help you in providing:

1. Information on organization and management of the course.
2. A description of the course objectives which will you will be expected to achieve at the end of the course.
3. Information on learning methods that you will experience during the course.
4. Information on Assessment and examination policy, rules and regulations.

## **COURSES:**

Several courses of different durations will be taught in the subjects offered in third year as per the PMC guidelines. The academic year, which includes teaching, assessments, Midterms and pre- Prof Examinations comprises of approximately 40-42 weeks.

The Examining subjects for third year by the University are:

1. Operative Dentistry
2. Prosthodontics
3. Oral And Maxillofacial Surgery
4. Orthodontics

Non Examinable subjects have weightage in the 4<sup>th</sup> Professional Year Exams. Course No: Each course has a title and a number.

### Learning Methods:

- Lectures (LEC)
- Small group discussions (SGD)
- Bed side training (BSD)
- Chair side Training (CST)
- Learning with typodonts (TYP)
- Learning with Histological Slides (HS)
- Skills lab (SL)

### ASSESSMENTS

- Exam will be held at the end of every clinical rotation.
- Four CATS (Continuous Assessment Test) for each subject throughout the year will be conducted for regular candidates and the candidates repeating the year.
- The annual examinations will be conducted by the University.
- Minimum passing marks in all the assessments are 50% of the total marks.

### INTERNAL EVALUATIONS:

- The University requires internal evaluations which are based on the overall performance throughout the year in OSCE's, CAT's and Midterms.
- Total 20% weightage of OSCE and Theory will be sent to the University.

### ELIGIBILITY FOR THE ANNUAL EXAMINATIONS:

- Minimum of 90% attendance is required as per the University policy and rules.
- Attendance in every clinical rotation assessment and CAT's, midterms and Pre- Professional exams is mandatory.
- If you miss an end of rotation assessment, you will not be allowed to attend the next posting.
- Clearance of all college dues is mandatory.

## **RULES FOR REPEATING THE YEAR:**

- A student who fails to clear 100% subjects of the year after the Resit/ supply examinations of that year will be considered a Repeater.
- Student repeating will attend all classes of the subject(s) (theory / rotations) he/she was declared failed in. She/he will appear in all CAT's of the subject(s) in which he/ she were declared failed in.
- The repeater will pay the fees for the subject in which He/ She were declared fail, which will be not less than 25% of the total annual fee per subject to a maximum to 75% of the fee.
- If for any reason a student is unable to appear in the annual examination, he/ she can avail one chance for that academic year, i.e. to take the Resit/ supply examination. This will be counted as the second attempt.

## **ASSESSMENT ADMINISTRATION RULES AND REGULATION:**

To ensure that the assessments are held according to the standard conditions and that no examinee receives unfair advantage in the assessment, students must adhere to / abide by the rules and regulations of the institution and the university.

The Following examples include misconduct but not necessarily limited to misconduct

1. Copying or attempting to copy answers from another student or allowing answers to be copied.
2. Making notes of any kind during the assessment.
3. Failure to follow the instructions of the staff present.
4. Acts of disruptive behavior such as raising one's voice, talking to others during the examination.
5. Possession of any unauthorized material such as any photographic equipment or communication device.
6. Memorizing and reproducing examination materials and any unauthorized reproduction by any means.

## **STUDENTS SHOULD REMEMBER:**

1. Students should arrive in the lecture hall/ examination hall 10 minutes before the exam.
2. Students should wear college identification at all times.
3. Admit cards are mandatory to take the exam.



## **ORTHODONTICS STUDY GUIDE**

### **COURSE NAME: INTRODUCTION TO ORTHODONTICS**

**Course code: FJO4- ORT- 1**

**Learning objectives:**

- 1.1 Define orthodontics and introduction to orthodontics
- 1.2 Enumerate types of orthodontic treatment
  - a. Preventive treatment
  - b. Interceptive treatment
  - c. Corrective treatment
- 1.3 Discuss indication/ contraindication of orthodontic treatment
- 1.4 Discuss aims and need of orthodontic treatment

| S. NO | TOPICS                                                                           | MIT | HOURS    | ASSESSMENT<br>BCQ<br>OSCE |  |
|-------|----------------------------------------------------------------------------------|-----|----------|---------------------------|--|
| 1.    | Introduction to orthodontics                                                     | LEC | 01       | ✓                         |  |
| 2.    | Enumerate the aims/ need, indication/ contraindication for orthodontic treatment | LEC | 01       | ✓                         |  |
|       | TOTAL                                                                            |     | 02 Hours |                           |  |

## **COURSE NAME: GROWTH AND DEVELOPMENT**

**Course code: FJ04-ORT-02**

### **Learning Objectives:**

2.1 Define basic concepts of Growth and Development

2.2 Describe the variables affecting growth

2.3 Describe the methods of studying growth

2.4 Discuss various theories of growth

2.5 Discuss post natal craniofacial growth

2.6 Discuss application of growth in orthodontics

| S.NO | TOPICS                                                                                  | MIT | HOURS    | ASSESSMENT |      |
|------|-----------------------------------------------------------------------------------------|-----|----------|------------|------|
|      |                                                                                         |     |          | BCQ        | OSCE |
| 1    | Discuss growth concepts                                                                 | LEC | 01       | ✓          | ✓    |
| 2    | Describe the variables affecting growth.<br>Describe the methods of studying growth     | LEC | 01       | ✓          | ✓    |
| 3    | Discuss various theories of growth                                                      | LEC | 01       | ✓          |      |
| 4    | Discuss post natal craniofacial growth<br>Discuss application of growth in orthodontics | LEC | 02       | ✓          | ✓    |
|      | TOTAL                                                                                   |     | 05 Hours |            |      |

## **COURSE NAME: OCCLUSION AND MALOCCLUSION**

**Course code: FJ04-ORT-03**

### **Learning Objectives:**

- 3.1 Define occlusion
- 3.2 Define terminologies of occlusion and malocclusion
- 3.3 Discuss Class I, II, and III malocclusion
- 3.4 Describe Andrews's six keys of occlusion
- 3.5 Describe Ackerman profit classification

| <b>S.NO<br/>:</b> | <b>TOPICS</b>                                                                                                               | <b>MIT</b> | <b>HOUR<br/>S</b> | <b>ASSESSME<br/>NT BCQ</b> | <b>OSCE</b> |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------|------------|-------------------|----------------------------|-------------|
| 1.                | Define occlusion<br><br>Define terminologies of occlusion and malocclusion<br><br>Discuss Class I, II, and III malocclusion | LEC        | 01                | ✓                          | ✓           |
| 2                 | Describe Andrews's six keys of occlusion<br><br>Describe Ackerman profit classification                                     | LEC        | 01                | ✓                          | ✓           |
|                   | Total                                                                                                                       |            | 02<br>hours       |                            |             |

## **COURSE NAME: DEVELOPMENT OF DENTITION AND OCCLUSION**

**Course code: FJ04-ORT-04**

### **Learning Objectives:**

- 4.1 Describe factors affecting development of occlusion.
- 4.2 Describe the features of primary, mixed and permanent dentition
- 4.3 Describe the dimensional changes in dental arch that occur in growing age.
- 4.4 Determine dental age based on tooth eruption.
- 4.5 Describe variations in development including size, form, number and position of teeth

| <b>S.NO</b> | <b>TOPICS</b>                                                                                                                                                                    | <b>MIT</b> | <b>HOURS</b> | <b>ASSESSMENT<br/>BCQ</b> | <b>OSCE</b> |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|---------------------------|-------------|
| 1.          | Describe in detail the development of dentition and occlusion<br>Describe the features of primary, mixed and permanent dentition                                                 | LEC        | 01           | ✓                         | ✓           |
| 2.          | Describe the dimensional changes in dental arch that occur in growing age ( leeway space, primate space, incisor liability)<br><br>Determine dental age based on tooth eruption. | LEC        | 01           | ✓                         | ✓           |
| 5.          | Describe variations in development including size, form, number and position of teeth (dental anomalies)                                                                         | LEC        | 01           | ✓                         | ✓           |
|             | Total                                                                                                                                                                            |            | 03 hours     |                           |             |

**COURSE NAME: ETIOLOGY OF MALOCCLUSION**

**Course code: FJO4- ORT- 05**

**Learning objectives:**

5.1 Discuss etiology of malocclusion

- a. Local/ environmental factors
- b. Hereditary factors
- c. Habits (thumb sucking/ tongue thrusting)

5.2 Differentiate the role of malformation, disruption and deformation in craniofacial anomalies.  
(Syndromes)

| S.No | TOPIC                                                                                                                                                                      | MIT | HOURS    | ASSESSMENT |      |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|------------|------|
|      |                                                                                                                                                                            |     |          | BCQ        | OSCE |
| 1.   | Etiology of Malocclusion <ul style="list-style-type: none"><li>• Skeletal factors</li><li>• Soft tissue factors</li><li>• Local /dental factors</li><li>• Habits</li></ul> | LEC | 02       | ✓          | ✓    |
| 2.   | Craniofacial anomalies ( syndromes)                                                                                                                                        | LEC | 01       | ✓          | ✓    |
|      | TOTAL                                                                                                                                                                      |     | 03 Hours |            |      |

## **COURSE NAME: BIOLOGY OF TOOTH MOVEMENT**

**Course code: FJ04- ORT- 06**

### **Learning objectives:**

- 6.1 Describe physiology and theories of tooth movement
- 6.2 Discuss effect of orthodontic forces
- 6.3 Discuss tooth movement and factors affecting it
- 6.4 Discuss anchorage and its types

| S.No | TOPICS                                                                                             | MIT       | HOURS       | ASSESSMENT<br>BCQ<br>OSCE |   |
|------|----------------------------------------------------------------------------------------------------|-----------|-------------|---------------------------|---|
| 1.   | Physiological tooth movement & theories of tooth movement                                          | LEC       | 01          | ✓                         |   |
| 2.   | Drugs effect on response to orthodontic force<br>Deleterious effects of orthodontic tooth movement | LEC       | 01          | ✓                         |   |
| 3.   | Describe factors affecting orthodontic movement                                                    | LEC       | 01          | ✓                         | ✓ |
| 4.   | Discuss anchorage and its types                                                                    | LEC / SGD | 04          | ✓                         | ✓ |
|      | TOTAL                                                                                              |           | 07<br>Hours |                           |   |

## **COURSENAME: DIAGNOSTIC AIDS IN ORTHODONTICS**

**Course code: FJ04-ORT-07**

### **Learning Objectives:**

- 7.1 Discuss evaluation of diagnostic records
- 7.2 Perform the procedure for history taking
- 7.3 Perform analysis of dentition and occlusion
- 7.4 Perform the procedure of extra oral and intraoral examination
- 7.5 Perform orthodontic record taking

| S.NO | TOPICS                                                                                                                                    | MIT      | HOURS    | ASSESSMENT<br>BCQS | OSCE |
|------|-------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|--------------------|------|
| 1.   | 7.1 Understanding of the evaluation of diagnostic records                                                                                 | LEC      | 1        | ✓                  | ✓    |
| 2.   | 7.2 History taking                                                                                                                        | OPD      | 15       |                    | ✓    |
| 3.   | 7.3 Cast analysis                                                                                                                         | SL       | 15       |                    | ✓    |
| 4.   | 7.4 Methods of space analysis<br>( permanent dentition analysis)<br>(mixed dentition analysis)                                            | SL       | 30       |                    | ✓    |
| 5.   | 7.5 Analysing face profile (frontal and lateral view)<br>Analysing macro, micro, mini aesthetics. Optimal smile and clinical implications | OPD      | 12       | ✓                  | ✓    |
| 6.   | 7.6 Clinical photography                                                                                                                  | Workshop | 02       |                    | ✓    |
| 7.   | 7.7 Collection of patient information and diagnostic data and construct a problem list                                                    | SGD      | 10       |                    | ✓    |
|      | Total                                                                                                                                     |          | 85 hours |                    |      |

## **COURSE NAME: DENTAL RADIOLOGY**

**Course code: FJ04- ORT- 8**

### **Learning Objectives:**

- 8.1 Discuss the indications of radiographs for orthodontic purpose
- 8.2 Enumerate different radiographs; orthopantograph, lateral cephalometric, hand- wrist x-rays, CVM, MP3 method and periapical view with its clinical application.
- 8.3 Describe variation in normal limits and abnormalities.
- 8.4 Discuss proper patient positioning while taking the cephalometric radiographs
- 8.5 Discuss radiation hazards.
- 8.6 Discuss the advantages and indications of CBCT (cone-beam computed tomography) in relation to orthodontics
- 8.7 Determine dental age on the basis of tooth development ( NOLLA's Stages)

| S.No | Topic                                                                 | MIT | Hours | ASSESSMENT<br>BCQ | OSCE |
|------|-----------------------------------------------------------------------|-----|-------|-------------------|------|
| 1.   | Indications of radiographs and discuss different types of radiographs | LEC | 01    | ✓                 |      |
| 2.   | Identification of cephalometric landmarks                             | LEC | 01    | ✓                 | ✓    |

|    |                                                                                        |             |          |   |   |
|----|----------------------------------------------------------------------------------------|-------------|----------|---|---|
|    | and Interpretation of cephalometric analysis                                           |             |          |   |   |
| 3. | Identification of cephalometric landmarks and Interpretation of cephalometric analysis | SL          | 50       | ✓ | ✓ |
| 4. | Determine dental age on the basis of tooth development ( NOLLA's Stages)               | LEC/<br>SGD | 02       | ✓ | ✓ |
|    | TOTAL                                                                                  |             | 54 hours |   |   |

## **COURSE NAME: BIOMECHANICS AND MATERIALS**

**Course code: FJ04-ORT-09**

### **Learning Objectives:**

9.1 Discuss materials in orthodontics

9.2 Discuss basic mechanics and terminologies of biomechanics

9.4 Discuss determinate vs. indeterminate force system

| S.NO | TOPICS                                                    | MIT | HOURS    | ASSESSMENT<br>BCQ | OSCE |
|------|-----------------------------------------------------------|-----|----------|-------------------|------|
| 1.   | Materials and production of orthodontic force             | LEC | 02       | ✓                 |      |
| 2.   | Discuss basic mechanics and terminologies of biomechanics | LEC | 01       | ✓                 | ✓    |
| 4.   | Determinate & indeterminate force system                  | LEC | 01       | ✓                 | ✓    |
|      | TOTAL                                                     |     | 04 Hours |                   |      |

## **COURSE NAME: REMOVABLE APPLIANCES**

**Course code: FJ04-ORT-10**

### **Learning Objectives:**

10.1 Discuss the types and indications of removable appliances

10.2 Discuss its components, advantages and disadvantages.

10.3 Discuss its mode of action.

| <b>S.NO:</b> | <b>TOPICS</b>                                                                                                       | <b>MIT</b> | <b>HOURS</b> | <b>ASSESSMENT<br/>BCQS</b> | <b>OSCE</b> |
|--------------|---------------------------------------------------------------------------------------------------------------------|------------|--------------|----------------------------|-------------|
| 1.           | Types, components, advantages and disadvantages of removable appliances and mode of action of a removable appliance | LEC        | 01           | ✓                          | ✓           |
| 2.           | Components of Removable appliances                                                                                  | SL         | 23           |                            | ✓           |
| 3.           | Fitting and activation of a removable appliance                                                                     | SGD        | 03           |                            |             |
|              | Total                                                                                                               |            | 27 hours     |                            |             |

## **COURSE NAME: FUNCTIONAL APPLIANCE**

**Course code: FJ04- ORT- 11**

### **Learning Objectives**

- 11.1 Define functional appliance
- 11.2 Classify functional appliance
- 11.3 Discuss indications of functional appliances
- 11.4 Discuss components of functional appliance
- 11.5 Discuss possible approaches for treatment of Class II and class III skeletal problems

| <b>S.NO</b> | <b>TOPICS</b>                                                    | <b>MIT</b> | <b>HOURS</b> | <b>ASSESSMENT<br/>BCQ<br/>OSCE</b> |   |
|-------------|------------------------------------------------------------------|------------|--------------|------------------------------------|---|
| 1           | Discuss functional appliances (types, indication, components)    | LEC        | 01           | ✓                                  | ✓ |
| 2           | Functional appliances for skeletal class II and III malocclusion | LEC        | 01           | ✓                                  | ✓ |
| 3           | Functional appliance                                             | SGD        | 03           | ✓                                  |   |
|             | TOTAL                                                            |            | 05 hours     |                                    |   |

## **COURSE NAME: FIXED APPLIANCE**

**Course Code: FJ04-ORT-12**

### **Learning Objectives:**

12.1 Describe different types of fixed appliance system

12.2 Discuss indications and drawbacks of fixed appliance

12.3 Describe different components and accessories of fixed appliance

12.4 Define comprehensive orthodontics

12.5 Discuss different stages of comprehensive orthodontics

| <b>S.NO</b> | <b>TOPICS</b>                                                                                                                | <b>MIT</b> | <b>HOURS</b> | <b>ASSESSMENT<br/>BCQ</b> | <b>OSCE</b> |
|-------------|------------------------------------------------------------------------------------------------------------------------------|------------|--------------|---------------------------|-------------|
| 1           | Difference between different fixed appliance system and discuss its indications and contraindications.                       | LEC        | 01           | ✓                         | ✓           |
| 2           | Components of fixed appliance system, Edgewise appliance(alignment and leveling , space closure , finishing in orthodontics) | LEC        | 01           | ✓                         | ✓           |
| 3           | Perform separator placement                                                                                                  | SL         | 03           |                           | ✓           |
| 4           | Perform Banding                                                                                                              | SL         | 03           |                           | ✓           |
| 5           | Perform Bonding                                                                                                              | SL         | 03           |                           | ✓           |
| 6           | Perform wire insertion and o-ring placement                                                                                  | SL         | 03           |                           | ✓           |
| 7           | Perform power chain placement, co-ligation and single tie                                                                    | SL         | 03           |                           | ✓           |
|             | TOTAL                                                                                                                        |            | 17 hours     |                           |             |

## **COURSENAME: ORTHOPEDIC APPLIANCES**

**Course code: FJ04- ORT- 13**

### **Learning Objectives:**

- 8.1 Define orthopedic appliance
- 8.2 List the indications for orthopedic appliance
- 8.3 Classify different types of orthopedic appliance
- 8.4 Discuss types of headgear
- 8.5 Discuss growth modification with headgear, facemask and chin cup.

| <b>S.No</b> | <b>Topic</b>                                                | <b>MIT</b> | <b>Hours</b> | <b>ASSESSMENT<br/>BCQ<br/>OSCE</b> |   |
|-------------|-------------------------------------------------------------|------------|--------------|------------------------------------|---|
| 1.          | Define orthopedic appliances, discuss headgear and its type | LEC        | 1 hour       | ✓                                  | ✓ |
| 2.          | Discuss facemask /reverse pull headgear and chin cup        | LEC        | 1 hour       | ✓                                  | ✓ |
| 3.          | Orthopedic appliances                                       | SGD        | 2 hour       |                                    |   |
|             | TOTAL                                                       |            | 4 hours      |                                    |   |

## **COURSE NAME: TREATMENT PLANNING**

**Course code: FJ04-ORT-14**

### **Learning Objectives:**

14.1 Discuss non-skeletal problems in sagittal, vertical and transverse plane of space.

14.2 Discuss skeletal problems in sagittal, vertical and transverse plane of space.

14.3 Discuss indications of extraction in orthodontics

14.4 Describe treatment planning concept and goals in primary, mixed and permanent dentition

| <b>S.NO:</b> | <b>TOPICS</b>                                                                                                                                                                                                                           | <b>MIT</b> | <b>HOURS</b> | <b>ASSESSMENT<br/>BCQS</b> | <b>OSCE</b> |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|----------------------------|-------------|
| 1.           | 14.1 Identify the dental or skeletal problem<br>Discuss non-skeletal problems in sagittal, vertical and transverse plane of space.<br>(cross bite, deep bite, open bite, excessive over jet, crowding, class II, III, canine impaction) | LEC        | 05           | ✓                          | ✓           |
| 2.           | 14.2 Discuss skeletal problems in sagittal, vertical and transverse plane of space.                                                                                                                                                     | LEC        | 02           |                            | ✓           |
| 3.           | 14.3 Address the need for extraction in orthodontics (extraction vs. non-extraction)                                                                                                                                                    | LEC        | 01           | ✓                          |             |
| 4.           | 14.4 Describe treatment planning concept and goals in primary, mixed and permanent dentition                                                                                                                                            | SGD        | 12           |                            |             |
|              | Total                                                                                                                                                                                                                                   |            | 20 hours     |                            |             |

## **COURSE NAME: INTERCEPTIVE ORTHODONTICS**

**COURSE code: FJ04-ORT-15**

### **Learning Objectives:**

15.1 Define space maintainer and different appliances/armamentarium for space maintenance

15.2 Define space regaining

15.3 Define serial extraction and discuss protocol followed for serial extraction

| S.NO: | TOPICS                                                                                                           | MIT | HOURS    | ASSESSMENT<br>BCQS | OSCE |
|-------|------------------------------------------------------------------------------------------------------------------|-----|----------|--------------------|------|
| 1.    | Recognize and formulate the interceptive orthodontic treatment for the patient                                   | LEC | 02       |                    | ✓    |
| 2.    | Define space maintainer and different appliances, space regaining, serial extraction, balancing and compensation | SGD | 03       | ✓                  |      |
|       | Total                                                                                                            |     | 05 hours |                    |      |

## **COURSE NAME: CLEFT LIP AND PALATE**

**COURSE code: FJ04-ORT-16**

### **Learning Objectives:**

16.1 Determine aetiology and clinical features and of cleft lip and palate.

16.2 Discuss different classification of cleft lip and palate.

16.3 Discuss sequence and management of cleft.

| S.NO: | TOPICS                                                                                       | MIT | HOURS    | ASSESSMENT<br>BCQS | OSCE |
|-------|----------------------------------------------------------------------------------------------|-----|----------|--------------------|------|
| 1.    | Explain the aetiology, types and clinical presentation of patients with cleft lip and palate | LEC | 01       | ✓                  |      |
| 2.    | Role of orthodontist in the management of cleft lip and palate                               | LEC | 01       |                    | ✓    |
|       | Total                                                                                        |     | 02 hours |                    |      |

## **COURSE NAME: RETENTION AND RELAPSE**

**Course code: FJ04- ORT- 17**

### **Learning objectives:**

17.1 Define Retention and Relapse

17.2 Discuss concepts of retention

17.3 Discuss factors related to relapse

17.4 Discuss management of different types of malocclusion

17.5 Discuss special procedures to avoid relapse

17.6 Discuss different types of fixed and removable retention.

| S.NO | TOPICS                                                                                                  | MIT | HOURS    | ASSESSMENT |      |
|------|---------------------------------------------------------------------------------------------------------|-----|----------|------------|------|
|      |                                                                                                         |     |          | BCQ        | OSCE |
| 1.   | Describe the concept and management of retention, relapse, & stability and explain factors affecting it | LEC | 01       | ✓          | ✓    |
| 2    | Removable appliance as retainer                                                                         | SL  | 01       | ✓          | ✓    |
|      | TOTAL                                                                                                   |     | 02 Hours |            |      |

## **COURSE NAME: SURGICAL ORTHODONTICS**

**Course code: FJ04-ORT-18**

### **Learning Objectives:**

18.1 Discuss the principle and types of orthognathic surgery

18.2 Enumerate indications and contraindications of orthognathic surgeries

18.3 Interpret Class II and Class III surgical treatment options

| S.No | TOPICS                                                                                                                                 | MIT | HOURS    | ASSESSMENT | OSCE |
|------|----------------------------------------------------------------------------------------------------------------------------------------|-----|----------|------------|------|
|      |                                                                                                                                        |     |          | BCQ        |      |
| 1.   | Identify and discuss the patients undergoing orthognathic surgery and role of orthodontist in patients undergoing orthognathic surgery | LEC | 01       | ✓          |      |
|      | TOTAL                                                                                                                                  |     | 01 Hours |            |      |

### **COURSE NAME: ADJUNCTIVE ORTHODONTICS:**

**Course code: FJ04-ORT-19**

#### **Course objectives:**

19.1 Define adjunctive orthodontics

19.2 Discuss anatomy of periodontal structures

19.3 Classify periodontal disease.

19.4 Discuss etiology and clinical features of periodontal disease

19.5 Interpret the role of orthodontist in management of periodontal disease and in facilitation of prosthetic treatment

| S.NO | TOPICS                            | MIT     | HOURS    | ASSESSMENT<br>BCQ | OSCE |
|------|-----------------------------------|---------|----------|-------------------|------|
| 1.   | Ortho-perio-restorative interface | Lecture | 01       | ✓                 |      |
|      | TOTAL                             |         | 01 Hours |                   |      |

## **STUDY GUIDE PROSTHODONTICS IN FINAL YEAR BDS PROGRAM**

### **STUDENT DESCRIPTION AND RATIONALE:**

The prosthodontics curriculum consists of two main components: Theoretical and Clinical parts. The theoretical part includes lectures that provide insight of prosthesis affecting oral and para-oral structures of hard and soft tissues. The clinical part includes fabrications of removable partial prosthesis and evaluation of students in workshops, to refine the students' clinical abilities.

### **LEARNING OUTCOMES:**

By the end of this course, students should be able to:

1. Classify and identify the partial and complete edentulous state of the patient.
2. Plan an adequate prosthesis according to patient need and demands.
3. Explain the consequences of tooth loss and replacement of missing teeth.
4. Fabricate 3 removable partial dentures and 1 complete denture of either arch under supervision.
5. Tooth preparation on model to receive a PFM crown for Molar, Pre Molar and Central Incisor.
6. Wax-up of metal crown on prepared molar tooth.

### **COURSE NAME: INTRODUCTION TO PARTIAL DENTURES**

### **COURSE CODE: FJ04-PD-1**

### **COURSE OBJECTIVES:**

- 1.1 Define prosthetic dentistry.
- 1.2 Enlist the divisions of prosthetic dentistry
- 1.3 Describe the benefits of an RPD
- 1.4 Discuss the tissue damages associated with RPDs
- 1.5 Explain the need and demand of removable partial denture treatment.
- 1.6 Describe the biomechanics and design solutions for a RPD

### **MODE OF INFORMATION TRANSFER (MIT)& ASSESSMENT**

| S:NO | TOPIC                                                                                                                                                                                                 | MIT   | HRS | BCQ | OSPE |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1    | Partially edentulous epidemiology, physiology & terminology.<br>Classification of partially edentulous arches.<br>Applied anatomy and physiology<br>Oral manifestations of local and systemic disease | LEC   | 2   | ✓   | ✓    |
| 2    | Principles of removable partial denture design                                                                                                                                                        | LEC   | 1   | ✓   | ✓    |
| 3    | Biomechanics                                                                                                                                                                                          | LEC   | 2   | ✓   | ✓    |
|      |                                                                                                                                                                                                       | Total | 5   |     |      |

**COURSE NAME: COMPONENTS**

**COURSE CODE: FJ04-PD-2**

**COURSE OBJECTIVES:**

- 2.1 Identify the components of a removable partial denture
- 2.2 Explain the means of achieving direct and indirect retention
- 2.3 Explain the type of maxillary and mandibular connectors and their indications
- 2.4 Explain tooth preparation procedures for removable Prosthodontics

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                   | MIT   | HRS | BCQ | OSPE |
|------|-----------------------------------------|-------|-----|-----|------|
| 1    | Connectors (major and minor connectors) | LEC   | 3   | ✓   | ✓    |
| 2    | Rests and Rest Seats                    | LEC   | 2   | ✓   | ✓    |
| 3    | Direct retainers                        | LEC   | 2   | ✓   | ✓    |
| 4    | Indirect retainers                      | LEC   | 1   | ✓   | ✓    |
| 5    | Denture base considerations.            | LEC   | 1   |     | ✓    |
|      |                                         | Total | 9   |     |      |

**COURSE NAME: SURVEYING**

**COURSE CODE: FJ04-PD-3**

**COURSE OBJECTIVES:**

- 3.1 Identify the parts of a dental surveyor
- 3.2 Explain the surveying process for a removable partial denture in detail

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC     | MIT  | HRS | BCQ | OSPE |
|------|-----------|------|-----|-----|------|
| 1    | Surveying | LEC  | 2   | ✓   | ✓    |
| 2    | Surveying | DEMO | 2   |     |      |
|      |           |      | 4   |     |      |

**COURSE NAME: IMPRESSION TECHNIQUES****COURSE CODE: FJ04-PD-4****COURSE OBJECTIVES:**

- 4.1 Enlist common impression materials and their uses
- 4.2 Identify the different types of impression trays
- 4.3 Explain the impression procedure for an RPD in detail

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                  | MIT   | HRS | BCQ | OSPE |
|------|----------------------------------------|-------|-----|-----|------|
| 1    | Impression techniques and modification | LEC   | 1   | ✓   | ✓    |
| 2    | Impression techniques                  | WS    | 2   |     |      |
|      |                                        | Total | 3   |     |      |

**COURSE NAME: DESIGNING, FABRICATION AND DELIVERY****COURSE CODE: FJ04-PD-5****COURSE OBJECTIVES:**

- 5.1 Preparation of abutment teeth to receive direct and indirect components of RPD
- 5.2 Describe the protocol and sequence of RPD framework try in
- 5.3 Enlist instructions which can be given to the patient at insertion
- 5.4 Describe the post insertion follow-up sequence

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                 | MIT | HRS | BCQ | OSPE |
|------|---------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1    | Preparation of mouth for removable partial dentures<br>Preparation of abutment teeth. | LEC | 1   | ✓   | ✓    |
| 2    | Trial of metal framework                                                              | LEC | 1   | -   | ✓    |
| 3    | Occlusal relations for removable partial denture.<br>(Maxillo- mandibular relations)  | LEC | 1   | ✓   | ✓    |
| 4    | Insertion and post insertion instructions and recall.                                 | LEC | 1   | ✓   | ✓    |
|      | Preparation of mouth for removable partial dentures<br>Preparation of abutment teeth. | CST | 2   |     |      |
|      | Trial of metal framework                                                              | CST | 2   |     |      |
|      | Occlusal relations for removable partial denture.<br>(Maxillo- mandibular relations)  | CST | 2   |     |      |

|   |                                                       |       |    |  |  |
|---|-------------------------------------------------------|-------|----|--|--|
| 5 | Insertion and post insertion instructions and recall. | CST   | 2  |  |  |
|   |                                                       | TOTAL | 12 |  |  |

**COURSE NAME: TYPES OF REMOVABLE PARTIAL DENTURES**

**COURSE CODE: FJ04-PD-6**

**COURSE OBJECTIVES:**

- 6.1 Identify the different types of RPD
- 6.2 Indications of different types of RPD
- 6.3 Advantages and disadvantages of different types of RPD

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                           | MIT   | HRS | BCQ | OSPE |
|------|---------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1    | Types of partial denture<br>1. Interim partial denture<br>2. Every denture<br>3. Spoon denture<br>4. Swing lock partial denture | LEC   | 1   | ✓   | ✓    |
|      |                                                                                                                                 | TOTAL | 1   |     |      |

**COURSENAME:COMPLETE DENTURE; INTRODUCTION TO COMPLETE DENTURES**

**COURSE CODE: FJ04-CD-7**

**COURSE OBJECTIVES:**

- 7.1 Learn the terminologies used in removable Complete Denture.
- 7.2 Enlist steps in the fabrication of complete dentures
- 7.3Describe the anatomical landmarks common to both maxillary and mandibular arches.
- 7.4Identify various anatomic landmarks located in maxilla and mandible

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                                                      | MIT   | HRS | BCQ | OSPE |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1.   | Definitions(Glossary of Prosthodontic Terms)<br>Applied anatomy and physiology of complete denture<br>Peripheral tissue attachment of denture bearing area | LEC   | 1   | ✓   | ✓    |
| 2    | Tongue Form<br>Saliva                                                                                                                                      | LEC   | 1   | ✓   | ✓    |
|      |                                                                                                                                                            | Total | 2   |     |      |

**COURSE NAME:ANATOMICAL LANDMARKS**

**COURSE CODE: FJ04-CD-8**

**COURSE OBJECTIVES:**

8.1 Define the factors affecting complete denture retention

8.2 Identify the different peripheral tissue attachment that limit complete dentures

8.3 Identify the structures that support the maxillary and mandibular dentures

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                                                                                                                                                                                                 | MIT | HRS | BCQ | OSPE |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1    | Systemic disorders and applied pathology<br>Muscle tone and muscle development<br>Osmotic Balances<br>Pascal's law and its corollaries,<br>atmospheric pressure, intermolar<br>attraction, interfacial surface tension<br>Oral lesions with skin manifestations<br>Psychiatric evaluation of patients | LEC | 2   | ✓   | ✓    |
| 2    | Oral conditions of Denture Bearing Area<br>Ridge form and ridge relations<br>Oral mucosa: Resistant and Non resistant<br>Alveolar bone resorption<br>Face Forms                                                                                                                                       | LEC | 1   | ✓   | ✓    |
| 3    | Fundamentals of denture retention and<br>contributing                                                                                                                                                                                                                                                 | LEC | 1   | ✓   | ✓    |
| 4    | Mouth preparation including<br>preprosthetic surgery                                                                                                                                                                                                                                                  | LEC | 1   | ✓   | ✓    |
|      | Total                                                                                                                                                                                                                                                                                                 |     | 5   |     |      |

**COURSE NAME: IMPRESSION, THEORIES AND TECHNIQUES**

**COURSE CODE: FJ04-CD-9**

**COURSE OBJECTIVES:**

9.1 Enlist common impression materials and their uses

9.2 Identify the different types of impression trays

9.3 Explain the impression procedures and techniques for complete dentures in detail

9.4 Explain the different techniques required to achieve success in complete  
Dentures

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                                   | MIT | HRS | BCQ | OSPE |
|------|-----------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1    | Objectives of impression<br>Theories and techniques<br>Impression technique: minimum pressure,<br>definite pressure, selective pressure | LEC | 2   | ✓   | ✓    |

|   |                                                                                                                               |      |   |   |   |
|---|-------------------------------------------------------------------------------------------------------------------------------|------|---|---|---|
|   | impression<br>Impression techniques: primary, wash and secondary impression, impression trays, impression materials           |      |   |   |   |
| 2 | Stability                                                                                                                     | LEC  | 1 | ✓ | ✓ |
| 3 | Impression technique: minimum pressure, definite pressure, selective pressure impression                                      | WS   | 2 |   |   |
| 4 | Impression techniques: selection of impression trays, mixing of impression materials, primary, wash and secondary impression, | DEMO | 2 |   |   |
| 5 | Impression techniques: selection of impression trays, mixing of impression materials, primary, wash and secondary impression  | CST  | 2 |   |   |
|   | Total                                                                                                                         |      | 9 |   |   |

**COURSE NAME: ARTICULATION, ARTICULATORS AND FACEBOW**

**COURSE CODE: FJ04-CD-10**

**STUDENT OBJECTIVES:**

- 10.1 Define articulators
- 10.2. Discuss in detail various types of articulators
- 10.3 Differentiate between the different types of articulators
- 10.4 Describe Face bow, its types and uses
- 10.5 Discuss the transfer of facebow record to an articulator

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                              | MIT | HRS | BCQ | OSPE |
|------|------------------------------------|-----|-----|-----|------|
| 1    | Articulators                       | LEC | 1   | ✓   | ✓    |
| 2    | Theories of Articulation Occlusion | LEC | 1   | ✓   | ✓    |
| 3    | Facebow                            | LEC | 1   | ✓   | ✓    |
| 4    | Articulators                       | WS  | 2   | ✓   | ✓    |
| 5    | Facebow                            | WS  | 2   | ✓   | ✓    |
|      | Total                              |     | 7   |     |      |

**COURSE NAME: MAXILLO MANDIBULAR RELATIONS****COURSE CODE: FJ04-CD-11****COURSE OBJECTIVES:**

- 11.1 Define maxilla mandibular relations
- 11.2 Discuss mandibular movements in frontal, sagittal and horizontal plane
- 11.3 List basic mandibular positions
- 11.4 Define resting vertical and occlusal dimensions

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                        | MIT | HRS | BCQ | OSPE |
|------|------------------------------|-----|-----|-----|------|
| 1    | Maxillomandibular relations. | LEC | 2   | ✓   | ✓    |
| 2    | Maxillomandibular relations. | CST | 2   | ✓   | ✓    |
|      | Total                        |     | 4   |     |      |

**COURSE NAME: SELECTION AND ARRANGEMENT OF TEETH****COURSE CODE: FJ04-CD-12****COURSE OBJECTIVES:**

- 12.1 Define occlusion, centric occlusion and the balanced occlusion
- 12.2 Discuss the position of teeth in relation to the alveolar ridge
- 12.3 Describe the orientation of teeth during teeth setup

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                  | MIT | HRS | BCQ | OSPE |
|------|------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1    | Teeth selection and arrangement, factors responsible size, shape, color, shade and, position and relationship of teeth | LEC | 1   | ✓   | ✓    |
| 2    | Teeth selection and arrangement                                                                                        | WS  | 2   | ✓   | ✓    |
| 3    | Teeth selection and arrangement                                                                                        | CST | 2   | ✓   | ✓    |
|      | Total                                                                                                                  |     | 5   |     |      |

**COURSE NAME: TRIAL AND INSERTION****COURSE CODE: FJ04-CD-13****COURSE OBJECTIVES:**

13.1 Discuss in detail the final processing of complete dentures

13.2 List post insertion instructions

13.3 Discuss post insertion follow up

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                              | MIT   | HRS | BCQ | OSPE |
|------|--------------------------------------------------------------------|-------|-----|-----|------|
| 1    | Try in                                                             | LEC   | 1   | ✓   | ✓    |
| 2    | Insertion<br>Postinsertion instructions<br>Post insertion complain | LEC   | 1   | ✓   | ✓    |
| 3    | Relining, rebasing, repair and copy denture                        | LEC   | 2   | ✓   | ✓    |
| 4    | Try in                                                             | CST   | 2   |     |      |
| 5    | Insertion<br>Postinsertion instructions<br>Post insertion complain | CST   | 2   |     |      |
|      |                                                                    | TOTAL | 8   |     |      |

**COURSE NAME: MISCELLANEOUS TOPICS**

**COURSE CODE: FJ04-CD-14**

**COURSE OBJECTIVES:**

14.1 Define, classify and list types of immediate dentures

14.2 Indications of immediate dentures

14.3 Single complete dentures and their importance

14.4 Factors affecting single complete dentures

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                       | MIT   | HRS | BCQ | OSPE |
|------|---------------------------------------------|-------|-----|-----|------|
| 1    | Immediate dentures and Replacement dentures | LEC   | 1   | ✓   | ✓    |
| 2    | Single complete denture                     | LEC   | 1   | ✓   | ✓    |
|      |                                             | TOTAL | 2   |     |      |

**COURSE NAME: FIXED PROSTHODONTICS; INTRODUCTION, TYPES AND TREATMENT PLANNING****COURSE CODE: FJ04-CD-15****COURSE OBJECTIVES:**

- 15.1 Learn the terminologies used in Fixed partial denture.
- 15.2 Learn the different types of crowns and their indications.
- 15.3 Learn biomechanics of FPD and partially dentate patient.
- 15.4 Learn the different parts of Fixed Partial Dentures
- 15.5 Learn the basic and advanced concept of replacement of missing tooth and teeth with FPD.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                                                                      | MIT   | Hrs | BCQ | OSPE |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1    | An introduction to fixed Prosthodontics<br>History and examination<br>Diagnosis and treatment planning                                                                     | LEC   | 2   | ✓   | ✓    |
| 2    | Components of Fixed partial denture<br>Classification of Fixed Partial Denture<br>Fixed Partial Denture types<br>Crown and types of crowns<br>Fixed Partial Denture Design | LEC   | 2   | ✓   | ✓    |
|      |                                                                                                                                                                            | TOTAL | 4   |     |      |

**COURSE NAME: DESIGN OF FIXED PARTIAL DENTURES****COURSE CODE: FJ04-CD-16****COURSE OBJECTIVES:**

- 16.1 List the design considerations for FPDs
- 16.2 Prerequisites for abutments, pontic and connectors.
- 16.3 Describe material selection for fixed prosthesis

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                   | MIT   | HRS | BCQ | OSPE |
|------|-----------------------------------------|-------|-----|-----|------|
| 1    | Abutment and retainer selection         | LEC   | 1   | ✓   | ✓    |
| 2    | Margin placement and pontic design      | LEC   | 2   | ✓   | ✓    |
| 3    | Material considerations and cementation | LEC   | 1   | ✓   | ✓    |
| 4    | Tooth preparation                       | LEC   | 2   | ✓   | ✓    |
| 5    | Tooth preparation                       | WS    | 2   |     |      |
|      |                                         | TOTAL | 8   |     |      |

**COURSE NAME: TEMPORIZATION OR PROVISIONAL RESTORATION**

**COURSE CODE: FJ04-CD-17**

**COURSE OBJECTIVES:**

- 17.1 List ideal requirements of provisional restorations
- 17.2 Describe different materials used to fabricate provisional restorations
- 17.3 Discuss different techniques used in fabrication of provisional restorations

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC         | MIT   | HRS | BCQ | OSPE |
|------|---------------|-------|-----|-----|------|
| 1    | Temporization | LEC   | 1   | ✓   | ✓    |
| 2    | Temporization | WS    | 2   | ✓   | ✓    |
|      |               | TOTAL | 3   |     |      |

**COURSE NAME: RESIN BONDED BRIDGES**

**COURSE CODE: FJ04-CD-18**

**COURSE OBJECTIVES:**

- 18.1 List the different types of resin bonded bridges
- 18.2 Discuss the indications of resin bonded bridges
- 18.3 Discuss the advantages and disadvantages of resin bonded bridges

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                 | MIT | HRS | BCQ | OSPE |
|------|---------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1    | Resin Bonded Bridges; types, indications, prerequisites, advantages and disadvantages | LEC | 2   | ✓   | ✓    |
|      |                                                                                       |     | 2   |     |      |

**COURSE NAME: IMPLANTOLOGY**

**COURSE CODE: FJ55-PD-19**

**COURSE OBJECTIVES:**

- 19.1 Learn the terminologies used in Implant Dentistry.

- 19.2 Learn biomechanics of Implant, teeth and edentulous arch (differential support and mobility).
- 19.3 Learn the basic and advanced concept of replacement of missing tooth and teeth with Implant.
- 19.4 Understand the physiology and pathology of bone metabolism
- 19.5 Learn the complications and their management in implant dentistry.
- 19.6 Learn the aesthetic concepts
- 19.7 Learn the digital smile makeovers

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                       | MIT   | Hrs | BCQ | OSPE |
|------|-------------------------------------------------------------|-------|-----|-----|------|
| 1    | Types of implants<br>Osteointegration and biocompatibility. | LEC   | 1   | ✓   | ✓    |
| 2    | Prosthetic options                                          | LEC   | 2   | ✓   | ✓    |
| 3.   | Limitation of implants                                      | LEC   | 1   | -   | ✓    |
| 4    | Clinical and laboratory procedure                           | LEC   | 1   | -   | ✓    |
|      |                                                             | TOTAL | 5   |     |      |

**COURSE NAME: MAXILLO FACIAL PROSTHESIS**

**COURSE CODE: FJ55-PD-20**

**COURSE OBJECTIVES:**

- 20.1 Learn the terminologies used in Maxillofacial Prosthodontics.
- 20.2 Learn biomechanics of Maxillofacial Prosthesis and dynamic of defect area.
- 20.3 Learn the basic and advanced concept of replacement of missing tissue.
- 20.4 Learn the complications and their management.
- 20.5 Learn the importance of psychological support in rehabilitation of these patients.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                                                           | MIT   | Hrs | BCQ | OSPE |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1.   | Classification of congenital and acquired defects.<br>Principles governing treatment and management of patients presenting with various defects | LEC   | 1   | ✓   | ✓    |
| 2.   | Obturator<br>Cleft palate prosthesis                                                                                                            | LEC   | 1   | ✓   | ✓    |
| 3.   | Speech aid prosthesis.<br>Facial prosthesis.                                                                                                    | LEC   | 1   | ✓   | ✓    |
| 4.   | TMD SPLINTS<br>Bite raising appliance<br>Splints and stents                                                                                     | LEC   | 1   | ✓   | ✓    |
|      |                                                                                                                                                 | Total | 4   |     |      |

**COURSE NAME: OCCLUSION INCLUDING TMD/MPD**

**COURSE CODE: FJ55-PD-21**

**COURSE OBJECTIVES:**

- 21.1 Learn the terminologies used in Occlusion and TMJ.
- 21.2 Learn the anatomy, biomechanics of dental occlusion.
- 21.3 Learn the basic and advanced concepts of rehabilitation of edentulous jaw with CD.
- 21.4 Discuss common signs and symptoms associated with TMJ disorders and the current investigations available for the evaluation of TMJ disorders e.g. arthrography, CT,MRI
- 21.5 Enlist common pharmacological treatment options, occupational therapy, splint therapy, alternative medical therapy for pain

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                             | MIT   | Hrs | BCQ | OSPE |
|------|---------------------------------------------------|-------|-----|-----|------|
| 1.   | Theories and principles of occlusion              | LEC   | 1   | ✓   | ✓    |
| 2.   | Concept, etiology, treatment planning and options | LEC   | 1   | ✓   | ✓    |
|      |                                                   | Total | 2   |     |      |

**Course Name: GERODONTOLOGY**

**Course Code: FJ55-PD-22**

**LEARNING STRATEGIES, OUTCOME AND ASSESSMENT:**

| S:NO | TOPIC                                                                                                                                  | MIT | HRS | BCQ | OSPE |
|------|----------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1    | Effects of medication on oral health<br>Medical conditions having oral manifestation<br>Xerostomia<br>Root caries<br>Giatric nutrition | LEC | 1   | ✓   | ✓    |
|      | Total                                                                                                                                  |     | 1   |     |      |

**RECOMMENDED BOOKS:**

**REMOVABLE PROSTHODONTICS**

1. Prostodontic Treatment for Edentulous Patients.(Boucher's)  
George A Zarb,Charles&Bolender
1. Text Book McCracken Removable Partial Prosthodontics
2. Complete Denture Prosthodontics  
John Joy Manappallil

## FIXED PROSTHODONTICS

3. Text book Shillenburg Fundamentals of Fixed Prosthodontics
4. Reference book Contemporary Fixed Prosthodontics by Rosensteil.

| COURSE CODE | TOPIC                                                                                                                                                                                                                                                                                                                                                                                                                                              | TOTAL HOURS  |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| FJ04-PD-1   | INTRODUCTION TO PARTIAL DENTURES                                                                                                                                                                                                                                                                                                                                                                                                                   | 5            |
| FJ04-PD-2   | COMPONENTS                                                                                                                                                                                                                                                                                                                                                                                                                                         | 9            |
| FJ04-PD-3   | SURVEYING                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4            |
| FJ04-PD-4   | IMPRESSION TECHNIQUES                                                                                                                                                                                                                                                                                                                                                                                                                              | 3            |
| FJ04-PD-5   | DESIGNING, FABRICATION AND DELIVERY                                                                                                                                                                                                                                                                                                                                                                                                                | 12           |
| FJ04-PD-6   | TYPES OF REMOVABLE PARTIAL DENTURES                                                                                                                                                                                                                                                                                                                                                                                                                | 1            |
| FJ04-CD-7   | COMPLETE DENTURE; INTRODUCTION TO COMPLETE DENTURES                                                                                                                                                                                                                                                                                                                                                                                                | 2            |
| FJ04-CD-8   | ANATOMICAL LANDMARKS                                                                                                                                                                                                                                                                                                                                                                                                                               | 5            |
| FJ04-CD-9   | IMPRESSION, THEORIES AND TECHNIQUES                                                                                                                                                                                                                                                                                                                                                                                                                | 9            |
| FJ04-CD-10  | ARTICULATION, ARTICULATORS AND FACEBOW                                                                                                                                                                                                                                                                                                                                                                                                             | 7            |
| FJ04-CD-11  | MAXILLO MANDIBULAR RELATIONS                                                                                                                                                                                                                                                                                                                                                                                                                       | 4            |
| FJ04-CD-12  | SELECTION AND ARRANGEMENT OF TEETH                                                                                                                                                                                                                                                                                                                                                                                                                 | 5            |
| FJ04-CD-13  | TRIAL AND INSERTION                                                                                                                                                                                                                                                                                                                                                                                                                                | 8            |
| FJ04-CD-14  | MISCELLANEOUS TOPICS                                                                                                                                                                                                                                                                                                                                                                                                                               | 2            |
| FJ04-CD-15  | FIXED PROSTHODONTICS; INTRODUCTION, TYPES AND TREATMENT PLANNING                                                                                                                                                                                                                                                                                                                                                                                   | 4            |
| FJ04-CD-16  | DESIGN OF FIXED PARTIAL DENTURES                                                                                                                                                                                                                                                                                                                                                                                                                   | 8            |
| FJ04-CD-17  | TEMPORIZATION OR PROVISIONAL RESTORATION                                                                                                                                                                                                                                                                                                                                                                                                           | 3            |
| FJ04-CD-18  | RESIN BONDED BRIDGES                                                                                                                                                                                                                                                                                                                                                                                                                               | 2            |
| FJ04-CD-19  | IMPLANTOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                       | 5            |
| FJ04-PD-20  | MAXILLO FACIAL PROSTHESIS                                                                                                                                                                                                                                                                                                                                                                                                                          | 4            |
| FJ04-PD-21  | OCCLUSION INCLUDING TMD/MPD                                                                                                                                                                                                                                                                                                                                                                                                                        | 2            |
| FJ04-PD-22  | GERODONTOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1            |
|             | Content Taught in Lecture Hall /<br>CST, WS, DEMO in Clinical Rotations                                                                                                                                                                                                                                                                                                                                                                            | 105          |
|             | <p>Clinical Quota to be completed during clinical rotations:</p> <p><u>Quota on patients:</u><br/>One complete denture<br/>Three Removable partial denture</p> <p><u>Clinical Quota on Model and Phantom Head:</u><br/>Ideal Teeth Setup ( complete denture)<br/>Crown Prep ( Two Anterior and Four Posterior on Phantom Head) (Plastic Teeth)<br/>One Crown wax up on Models<br/>One Temporization on Dental Cast<br/>( Recorded in Logbooks)</p> | 150-160hours |

## **4. STUDY GUIDE OPERATIVE DENTISTRY IN FINAL YEAR BDS**

### **COURSE DESCRIPTION & RATIONALE**

Operative Dentistry is one the major 4 subjects of final year BDS curriculum.

The operative curriculum is sub-divided into:

1. Basic Operative Dentistry
2. Endodontics
3. Pediatric Dentistry
4. Advance Operative Dentistry

The course is completed through various modes of information transfer throughout the whole year in the form of Lectures, Small Group Discussions, Demonstrations, Workshops & Chairside procedures. Students will be performing clinical procedures on patients, which will be properly assessed, recorded and duly signed in the logbooks.

As a major part of final year, students learn and perform more advanced clinical procedures, treat patients, formulate treatment plans under direct supervision.

### **LEARNING OUTCOMES:**

At the end of the year students should be able to:

1. Diagnose and manage patients with all types of carious lesions.
2. Perform amalgam, composite and GIC restorations.
3. Perform other restorative procedures such as pits and fissure sealants and PRR.
4. Diagnose and manage patients with pulpal problems.
5. Understand the concept and principles of endodontics
6. Perform root canal treatment on extracted teeth.
7. Diagnose and should know the management of Dental trauma.
8. Diagnose and manage paediatric patients.
9. Perform restorations in paediatric patients.

**COURSE NAME: BASIC OPERATIVE-BIOLOGICAL CONSIDERATIONS IN OPERATIVE DENTISTRY**

**COURSE CODE: FJ04-OPR-01**

### **COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 1.1 Discuss the chemical composition, structure and properties of enamel, dentin, pulp, cementum and gingiva.
- 1.2 Discuss the morphologic and histologic structure of tooth tissues with their clinical impact on restorative dentistry.

1.3 Discuss the importance of dento-gingival complex and biologic width in restorative dentistry

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S. No | Topic                                      | MIT   | Hrs | BCQ |
|-------|--------------------------------------------|-------|-----|-----|
| 1     | Enamel-dentine-pulp complex                | SGD   | 4   | ✓   |
| 2     | Cementum and gingiva                       | SGD   |     | ✓   |
| 3     | Morphology and histology of tooth tissues  | SGD   |     | ✓   |
| 4     | Dentogingival complex and Biological width | SGD   |     | ✓   |
|       |                                            | Total | 4   |     |

**COURSE NAME: BASIC OPERATIVE- PATIENT EVALUATION AND PROBLEM ORIENTED TREATMENT PLANNING**

**COURSE CODE: FJ04-OPR-02**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 2.1 Define treatment oriented treatment planning and discuss its merits and drawbacks.
- 2.2 Describe problem oriented treatment planning and its merits.
- 2.3 Discuss the correct questions regarding history and symptoms of presenting complaint.
- 2.4 Understand the importance of a thorough medical and dental history.
- 2.5 Describe and discuss elements of a clinical examination: Evaluation of dentition, evaluation of periodontium, evaluation of radiographs and evaluation of diagnostic casts and photographs.
- 2.5 Discuss esthetic parameters to be considered when restoring the dentition.
- 2.6 Understand that correct treatment sequencing is imperative for a successful treatment plan.
- 2.7 Discuss the importance of dental record keeping.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                           | MIT   | Hrs | BCQ    | OSCE |
|-----|-----------------------------------------------------------------|-------|-----|--------|------|
| 1   | Treatment oriented & problem oriented treatment planning        | SGD   | 4   | ✓      | ✓    |
| 2   | Thorough history taking and its importance                      | SGD   |     | ✓      | ✓    |
| 3   | Elements of clinical examination                                | CST   |     | ✓      | ✓    |
| 4   | Esthetic parameters                                             | LEC   | 1   | ✓<br>✓ | ✓    |
| 5   | Treatment planning and importance of correct treatment sequence | CST   | 3   | ✓      | ✓    |
| 6   | Dental record keeping and its importance                        | CST   | 2   |        | ✓    |
|     |                                                                 | Total | 10  |        |      |

**COURSE NAME: BASIC OPERATIVE- PRELIMINARY CONSIDERATIONS IN OPERATIVE DENTISTRY****COURSE CODE: FJ04-OPR-03****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 3.1 Understand the need of correct patient and operator positions when carrying out restorative procedures.
- 3.2 Discuss the ideal operating positions when carrying out various procedures.
- 3.3 Discuss the importance of isolation in operative dentistry and endodontics.
- 3.4 Enlist and describe different methods used for isolation.
- 3.5 Enlist and describe the armamentarium required for rubber dam isolation.
- 3.6 Describe and perform application and removal of rubber dam for operative dentistry and endodontics.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                           | MIT   | Hrs | BCQ |
|-----|---------------------------------------------------------------------------------|-------|-----|-----|
| 1   | Correct patient and operator position while carrying out restorative procedures | DEMO  | 3   |     |
| 2   | Ideal operating positions when carrying out various procedures                  | DEMO  |     |     |
| 3   | Importance of isolation in operative dentistry and endodontics                  | DEMO  |     | ✓   |
| 4   | Different methods of isolation                                                  | DEMO  |     | ✓   |
| 5   | Discuss armamentarium of rubber dam assembly                                    | DEMO  | 2   |     |
| 6   | Perform application and removal of rubber dam                                   | WS    | 3   |     |
|     |                                                                                 | Total | 8   |     |

**COURSE NAME: BASIC OPERATIVE- STERILIZATION AND DISINFECTION****COURSE CODE: FJ04-OPR-04****COURSE OBJECTIVES**

By the end of the topic the students will be able to:

- 4.1 Define and differentiate between the following terms: Sterilization, disinfection and asepsis.
- 4.2 Discuss the importance of sterilization and disinfection.
- 4.3 Enlist elements of a sterilization plan.
- 4.4 List various methods used for sterilization.
- 4.5 Discuss methods to monitor effectiveness of sterilization.
- 4.6 List chemicals that are used for disinfection.

4.7 Discuss general considerations for infection control in the dental office.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                            | MIT   | Hrs | BCQ |
|-----|------------------------------------------------------------------|-------|-----|-----|
| 1   | Cross Infection Control, sterilization, disinfection and asepsis | SGD   | 3   | ✓   |
| 2   | Elements of sterilization and disinfection plan                  | SGD   |     | ✓   |
| 3   | General considerations for infection control in dental office    | SGD   |     |     |
| 4   | Methods of disinfection                                          | CST   | 2   | ✓   |
| 6   | Practicing ideal sterilization and disinfection protocol         | CST   | 2   | ✓   |
|     |                                                                  | Total | 7   |     |

**COURSE NAME: BASIC OPERATIVE- ASSESSMENT OF RADIOGRAPHS**

**COURSE CODE: FJ04-OPR-05**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 5.1 Describe importance of radiographs in operative dentistry.
- 5.2 Identify normal anatomic structures of maxilla and mandible on a:
  - a) Periapical x-ray, Bitewing x-ray, Occlusal x-ray and Orthopantomogram (OPG).
- 5.3 Discuss the indications and limitations of the following x-rays views for diagnostic purposes:
  - a) Periapical x-ray, Bitewing x-ray, Occlusal x-ray and Orthopantomogram (OPG).

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                                            | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Radiographs in dentistry                                                                                         | SGD   | 3   | ✓   | ✓    |
| 2   | Identification of normal anatomic structures of maxilla and mandible                                             | SGD   |     | ✓   | ✓    |
| 3   | Discuss indications, limitations and diagnostic purposes of: periapical, bitewing, occlusal and orthopantomogram | SGD   |     | ✓   | ✓    |
| 4   | How to take paralleling periapical on patients using endo-ray                                                    | CST   | 3   | ✓   | ✓    |
|     |                                                                                                                  | Total | 6   |     |      |

**COURSE NAME: BASIC OPERATIVE- DENTAL CARIES: ETIOLOGY AND CLINICAL CHARACTERISTICS**

**COURSE CODE: FJ04-OPR-06**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 6.1 Define dental caries, discuss etiology and pathogenesis of dental caries.
- 6.2 Describe factors influencing dental caries process.
- 6.3 Discuss role of plaque biofilm in progression of dental caries.
- 6.4 Describe microorganisms responsible for dental caries.
- 6.5 Describe the Stephan's curve.
- 6.6 Describe clinical characteristics and progression of carious lesions as seen on:
  - a) Pit and fissures, smooth surfaces and root surfaces.
- 6.7 Describe the progression and different zones of carious lesions in Enamel and dentin.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                                                                     | MIT   | Hrs | BCQ |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|
| 1   | Caries, etiology and pathogenesis                                                                                                         | LEC   | 2   | ✓   |
| 2   | Role of influencing factors, microorganisms involved and the process of caries                                                            | LEC   |     | ✓   |
| 3   | Stephen's Curve                                                                                                                           | SGD   | 2   | ✓   |
| 4   | Characteristics, progression and zones of dental caries on pits and fissures, smooth surfaces and root surfaces of both enamel and dentin | SGD   |     | ✓   |
|     |                                                                                                                                           | Total | 4   |     |

**COURSE NAME: BASIC OPERATIVE- DENTAL CARIES: DIAGNOSIS AND MANAGEMENT**

**COURSE CODE: FJ04-OPR-07**

**COURSE OBJECTIVES:**

**By the end of the topic the students will be able to:**

- 7.1 Discuss methods of detection and diagnosis of dental caries.
- 7.2 Describe International Caries Detection and Assessment System (ICDAS II).
- 7.3 Discuss how to assess dental caries risk for a patient & discuss Caries
- 7.4 Management by Risk Assessment (CAMBRA).
- 7.5 Discuss protocols and strategies for prevention of dental caries and non-invasive options for treatment of existing lesions.
- 7.6 Define caries control restorations and describe the clinical protocol for caries control restorations.
- 7.7 Understand the need to devise a logical treatment plan sequence for restoring a patient's dentition.
- 7.8 Discuss maintenance care and recall visit intervals for individuals based on risk assessment.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                             | MIT   | Hrs | BCQ | OSCE |
|-----|-------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Detecting and diagnosing dental caries                            | LEC   | 1   | ✓   | ✓    |
| 2   | Understand the ICDAS II and dental risk assessment by CAMBRA      | LEC   |     | ✓   | ✓    |
| 3   | Protocols for caries prevention, non-invasive treatment of caries | SGD   | 5   | ✓   | ✓    |
| 4   | Caries control protocol for caries control restorations           | SGD   |     | ✓   | ✓    |
| 5   | Treatment plan sequence and post-operative maintenance            | SGD   |     | ✓   | ✓    |
|     |                                                                   | Total | 6   |     |      |

**COURSE NAME: BASIC OPERATIVE- DENTAL CARIES: MANAGEMENT OF DEEP CARIOUS LESION****COURSE CODE: FJ04-OPR-08****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 8.1 Discuss the various possible reactions of the pulp-dentin complex to a deep carious lesion.
- 8.2 Define:
  - a) Stepwise excavation, Indirect pulp cap & Direct pulp cap (caries and iatrogenic).
- 8.3 Discuss the rationale of stepwise excavation.
- 8.4 Enumerate materials that can be used for direct and indirect pulp cap.
- 8.5 Describe the clinical protocol for direct and indirect pulp cap procedures.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.No | Topic                                                          | MIT   | Hrs | BCQ | OSCE |
|------|----------------------------------------------------------------|-------|-----|-----|------|
| 1    | Effect of deep carious lesions on pulp-dentine complex         | SGD   | 2   | ✓   |      |
| 2    | Stepwise excavation, Indirect pulpcap& direct pulpcap          | SGD   | 1   | ✓   |      |
| 3    | Materials used in direct and indirect pulpcap                  | CST   | 6   | ✓   | ✓    |
| 4    | Clinical protocol and procedure of direct and indirect pulpcap | CST   |     | ✓   | ✓    |
|      |                                                                | Total | 9   |     |      |

**COURSE NAME: BASIC OPERATIVE- DENTAL CARIES: NOMENCLATURE, PRINCIPLES OF CAVITY DESIGN AND PREPARATION.****CLASS I- CLASS VI**

**COURSE CODE: FJ04-OPR-09****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 9.1 Describe different systems for naming and numbering teeth.
- 9.2 Describe the nomenclature of tooth surfaces and cavity preparation.
- 9.3 Explain classification of caries lesions and tooth preparation.
- 9.4 Describe the objectives of tooth preparation.
- 9.5 Enlist factors that need to be considered before tooth preparation.
- 9.6 Describe the steps in the initial and final stages of tooth preparation.
- 9.7 Identify shortcomings of Black's cavity classification.
- 9.8 Describe the advances in material sciences that, have made cavity preparation minimally invasive.
- 9.9 Plan restorations in different clinical situations.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.No | Topic                                                                    | MIT   | Hrs | BCQ |
|------|--------------------------------------------------------------------------|-------|-----|-----|
| 1    | Different systems to name and number teeth                               | SGD   | 3   | ✓   |
| 2    | Nomenclature of tooth surfaces and classification of cavity preparations | SGD   |     | ✓   |
| 3    | Tooth preparation: objectives, factors to consider & stages              | SGD   | 3   | ✓   |
| 4    | Recent advances in material sciences & conservative cavity preparation   | SGD   |     | ✓   |
| 5    | Planning restorations                                                    | SGD   |     | ✓   |
|      |                                                                          | Total | 6   |     |

**COURSE NAME: BASIC OPERATIVE-INSTRUMENTS AND EQUIPMENT FOR TOOTH PREPARATION****COURSE CODE: FJ04-OPR-10****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 10.1 Enlist hand and rotary instruments used for tooth preparation.
- 10.2 List various cutting and noncutting hand instruments.
- 10.3 Discuss the design features for hand cutting instruments.
- 10.4 Discuss the nomenclature for hand cutting instruments.
- 10.5 Describe sharpening of hand instruments.
- 10.6 Describe the various instrument grasp techniques that can be employed.
- 10.7 Enlist and describe rotary cutting equipment and instruments.
- 10.8 Discuss common design characteristics of rotary cutting instruments (dental burs).
- 10.9 Discuss latest developments for tooth preparation and caries removal including:
  - a) Lasers, Ozone & Air abrasion.
- 10.10 Discuss hazards with cutting instruments and their prevention.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                 | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Hand and rotary instruments, cutting and non-cutting instruments      | DEMO  | 1   | ✓   |      |
| 2   | Nomenclature, features and hazards of cutting instruments             | DEMO  |     | ✓   |      |
| 3   | Designs and characteristics of rotatory equipment and characteristics | DEMO  | 3   | ✓   |      |
| 4   | Recent advances in laser, ozone and air abrasion in tooth preparation | SGD   |     | ✓   |      |
|     |                                                                       | Total | 5   |     |      |

**COURSE NAME: BASIC OPERATIVE- REVIEW OF RESTORATIVE MATERIALS****COURSE CODE: FJ04-OPR-11****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

11.1 Discuss the composition, properties, merits and shortcomings of materials used for direct restorations:

- a) Amalgam
- b) GIC
- c) Composite

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic     | MIT   | Hrs | BCQ    | OSCE |
|-----|-----------|-------|-----|--------|------|
| 1   | Amalgam   | LEC   | 1   | ✓      | ✓    |
| 2   | GIC       | LEC   | 1   | ✓      | ✓    |
| 3   | Composite | LEC   | 1   | ✓<br>✓ | ✓    |
|     |           | Total | 3   |        |      |

**COURSE NAME: BASIC OPERATIVE- AMALGAM RESTORATIONS****COURSE CODE: FJ04-OPR-12****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 12.1 Discuss chemistry of dental amalgam, mercury hazards and hygiene.
- 12.2 List advantages and disadvantages of amalgam restorations.

- 12.3 Describe class 1 cavity preparation and explain the outline form of a class 2 cavity.
- 12.4 Discuss ways of improving resistance and retention form of a simple class 1 and 2 restoration.
- 12.5 Define complex restorations and ways of improving resistance and retention form of complex restorations.
- 12.6 Describe the need for cuspal coverage with special reference to rule of thirds.
- 12.7 Describe types of dentin pin and the method of placement of dentin pins.
- 12.8 Describe other mechanical features to improve resistance and retention.
- 12.9 Discuss importance of matrices and wedges, list various types of matrix band systems and list various parts of tofflemire and describe the method of using a tofflemire.
- 12.10 Describe bonded amalgam restorations and the mechanism of amalgam bonding.
- 12.11 Describe placement of amalgam in simple and complex cavities.
- 12.12 Discuss other cavity preparation designs e.g. box only preparation, tunnel preparation.
- 12.13 Discuss cavity preparation and restoration of a class 6 lesion.

#### **MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                            | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Introduction to amalgam restorations                             | LEC   | 1   | ✓   | ✓    |
| 2   | Clinical techniques involving class 1 and 2 amalgam restorations | CST   | 13  | ✓   | ✓    |
| 3   | Resistance and retention form                                    | LEC   | 1   | ✓   | ✓    |
| 4   | Amalgam bonding                                                  | LEC   |     | ✓   | ✓    |
| 5   | Complex restorations                                             | LEC   |     | ✓   | ✓    |
| 6   | Class 6 restorations                                             | LEC   |     | ✓   | ✓    |
|     |                                                                  | Total | 15  |     |      |

**COURSE NAME: BASIC OPERATIVE- BONDING TO ENAMEL AND DENTIN**  
**COURSE CODE: FJ04-OPR-13**

#### **COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 13.1 List advantages of adhesive techniques over conventional, non-adhesive methods.
- 13.2 Describe the structure of enamel and explain why it is a favorable substrate for bonding.
- 13.3 Describe the structure of dentin and explain how it is different from enamel.
- 13.4 Discuss the effect of smear layer on dentin bonding.
- 13.5 Explain the effect of Configuration Factor (C-factor) on bonding.
- 13.6 List scientific classification of modern adhesives.
- 13.7 Describe smear layer modifying adhesives.
- 13.8 Discuss etch and rinse adhesives.
- 13.9 Explain the effect of acid conditioning on enamel.
- 13.10 Discuss difficulties in dentine conditioning.
- 13.11 Discuss chemistry of primers and adhesive resin (bonding agent).
- 13.12 Explain the importance of hybridization for effective dentine bonding.
- 13.13 Discuss self-etch adhesives, describe 4<sup>th</sup>, 5<sup>th</sup> 6<sup>th</sup> and 7<sup>th</sup> generation adhesives.
- 13.14 Explain steps involved in enamel bonding and dentin bonding.
- 13.15 Describe the bond strength under optimal conditions.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                  | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------|-------|-----|-----|------|
| 1   | Basic concepts in adhesion             | LEC   | 1   | ✓   | ✓    |
| 2   | Enamel adhesion                        | LEC   |     | ✓   | ✓    |
| 3   | Dentine adhesion                       | LEC   | 1   | ✓   | ✓    |
| 4   | Generations of etchants and primers    | LEC   |     | ✓   | ✓    |
| 5   | Outcomes of enamel and dentine bonding | LEC   |     | ✓   | ✓    |
| 6   | Bonding Technique                      | SGD   | 4   | ✓   | ✓    |
|     |                                        | Total | 6   |     |      |

**COURSE NAME: BASIC OPERATIVE-DIRECT ANTERIOR COMPOSITE RESTORATIONS****COURSE CODE: FJ04-OPR-14****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 14.1 Discuss the chemistry of anterior composites.
- 14.2 Describe preoperative evaluation for an anterior composite restoration.
- 14.3 Describe factors influencing shade selection, guidelines and methods of shade matching.
- 14.4 Describe cavity preparation for class 3 restorations and class 4 restorations.
- 14.5 Explain composite placement technique for class 3 and 4 restorations.
- 14.6 List indications, contraindications, advantages, disadvantages and clinical steps of direct composite veneers.
- 14.7 Explain the technique for diastema closure with direct composite.
- 14.8 Discuss different instruments used for finishing and polishing of composite restorations and their use.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                            | MIT   | Hrs | BCQ | OSCE |
|-----|--------------------------------------------------|-------|-----|-----|------|
| 1   | Chemistry of anterior composites                 | LEC   | 2   | ✓   |      |
| 2   | Shade selection                                  | LEC   |     | ✓   | ✓    |
| 3   | General consideration for composite restorations | WS    | 3   | ✓   | ✓    |
| 4   | Instruments for composite restorations           | WS    |     | ✓   | ✓    |
| 5   | Class III and IV cavity preparation              | CST   | 13  | ✓   | ✓    |
|     |                                                  | Total | 15  |     |      |

**COURSE NAME: BASIC OPERATIVE- DIRECT POSTERIOR COMPOSITE RESTORATIONS****COURSE CODE: FJ04-OPR-15****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 15.1 Enumerate indications, contraindications, advantages and disadvantages for composite resin as a posterior restorative material.
- 15.2 Describe preoperative evaluation for a posterior composite restoration.  
List factors affecting retention of fissure sealants.
- 15.3 Describe placement technique for preventive resin restoration.
- 15.4 Explain the importance of pre-wedging in class 2 composites & outline form of a class 2 cavity.
- 15.5 Explain bonded base technique.
- 15.6 Classify matrix systems for composite restorations, compare circumferential and sectional matrix systems.
- 15.7 Discuss different methods to minimize polymerization shrinkage when placing composite.
- 15.8 List different methods to create a tight contact for class 2 composite restorations.
- 15.9 List various resin polymerization equipment.
- 15.10 Discuss other cavity preparation designs e.g. box only preparation, tunnel preparation.
- 15.11 Discuss cavity preparation and restoration of a class 6 lesion.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------------------------|-------|-----|-----|------|
| 1   | General consideration of posterior restorative material              | LEC   | 2   | ✓   | ✓    |
| 2   | Pits and fissure sealants                                            | LEC   |     | ✓   | ✓    |
| 3   | Clinical techniques for posterior restorations                       | WS    | 4   | ✓   | ✓    |
| 4   | Concepts of polymerization shrinkage                                 |       |     | ✓   | ✓    |
| 5   | Matrix systems and methods of achieving tight interproximal contacts |       |     | ✓   | ✓    |
| 6   | Cavity design and preparation                                        |       |     | ✓   | ✓    |
| 7   | Cavity Designs                                                       | SGD   | 2   | ✓   | ✓    |
|     |                                                                      | Total | 7   |     |      |

**COURSE NAME: BASIC OPERATIVE-TOOTH SURFACE LOSS****COURSE CODE: FJ04-OPR-16****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

16.1 Define the following types of tooth surface loss:

- a) Abrasion
- b) Attrition
- c) Erosion,
- d) Abfraction

16.2 Discuss the etiology of each.

16.3 Discuss the prevention and management of tooth surface loss.

16.4 List etiology, pathogenesis and management of dentine hypersensitivity.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                              | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------|-------|-----|-----|------|
| 1   | Define abrasion, attrition, erosion and abfraction | LEC   | 1   | ✓   | ✓    |
| 2   | Causes of non-carious tooth loss                   | LEC   |     | ✓   | ✓    |
| 3   | Prevention and management                          | LEC   | 1   | ✓   | ✓    |
| 4   | Dentine hypersensitivity                           | LEC   |     | ✓   | ✓    |
| 5   | Tooth wear and management                          | SGD   | 2   | ✓   | ✓    |
|     |                                                    | Total | 4   |     |      |

**COURSE NAME: BASIC OPERATIVE-DISCOLORATION OF TEETH**

**COURSE CODE: FJ04-OPR-17**

**LEARNING OBJECTIVES:**

By the end of the topic the students will be able to:

17.1 Describe causes of tooth discoloration and describe nature of stains.

17.2 Describe mode of action of bleaching agent on stains.

17.3 Enlist commonly used bleaching agents and their strengths.

17.4 Enlist indications and contraindications of various types of bleaching techniques.

17.5 Explain technique for:

- a. In-office vital bleaching
- b. At-home vital bleaching
- c. Non-vital bleaching.

17.6 Describe the procedure for micro abrasion and macro abrasion.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                             | MIT | Hrs | BCQ | OSCE |
|-----|---------------------------------------------------|-----|-----|-----|------|
| 1   | Tooth discoloration : classification and etiology | LEC | 1   | ✓   | ✓    |
| 2   | Tooth bleaching : MOA and different agents        | LEC |     | ✓   | ✓    |

|   |                                                                     |       |   |   |   |
|---|---------------------------------------------------------------------|-------|---|---|---|
| 3 | Techniques for bleaching: advantages, disadvantages and procedures. | LEC   |   | ✓ | ✓ |
|   |                                                                     | Total | 1 |   |   |

**COURSE NAME: ADVANCE OPERATIVE- CLASS 5 RESTORATIONS**

**COURSE CODE: FJ04-OPR-18**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 18.1 Describe cavity preparation for class 5 restorations.
- 18.2 Describe non-surgical and surgical techniques for isolating class 5 restorations.
- 18.3 Discuss restorative materials available for restoring class 5 lesions.
- 18.4 List ways of improving retention of class 5 composite restorations.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                             | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------|-------|-----|-----|------|
| 1   | Class 5 cavity preparations       | WS    | 3   | ✓   | ✓    |
| 2   | Isolation techniques              | LEC   |     | ✓   | ✓    |
| 3   | Restorative materials for class 5 | LEC   | 1   | ✓   | ✓    |
| 4   | Retention in class 5 lesions      | LEC   |     | ✓   | ✓    |
|     |                                   | Total | 4   |     |      |

**COURSE NAME: ADVANCE OPERATIVE- DIAGNOSIS AND TREATMENT OF ROOT CARIES**

**COURSE CODE: FJ04-OPR-19**

**LEARNING OBJECTIVES:**

By the end of the topic the students will be able to:

- 19.1 Define root caries.
- 19.2 Describe appearance and location of root caries.
- 19.3 List etiology and risk factors associated with root caries.
- 19.4 Discuss preventive and chemotherapeutic strategies to treat root caries.
- 19.5 Discuss available restorative materials for treating root caries.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                 | MIT   | Hrs | BCQ | OSCE |
|-----|---------------------------------------|-------|-----|-----|------|
| 1   | Overview of root caries               | LEC   | 1   | ✓   | ✓    |
| 2   | Causes and risk factors               | LEC   |     | ✓   | ✓    |
| 3   | Restorative materials for root caries | LEC   | 1   | ✓   | ✓    |
| 4   | Prevention and application            | LEC   |     | ✓   | ✓    |
|     |                                       | Total | 2   |     |      |

**COURSE: ADVANCE OPERATIVE-REVIEW OF RESTORATIVE MATERIALS FOR INDIRECT RESTORATIONS****COURSE CODE: FJ04-OPR-20****COURSE OBJECTIVES:****By the end of the topic the students will be able to:**

20.1 Discuss the composition, properties, merits and shortcomings of materials used for indirect restorations:

- Metals,
- Ceramics.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                         | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------|-------|-----|-----|------|
| 1   | Metal as material for indirect restorations   | SGD   | 4   | ✓   | ✓    |
| 2   | Ceramic as material for indirect restorations | SGD   |     | ✓   | ✓    |
|     |                                               | Total | 4   |     |      |

**COURSE NAME: ADVANCE OPERATIVE-PARTIAL COVERAGE INDIRECT RESTORATIONS****COURSE CODE: FJ04-OPR-21****COURSE OBJECTIVES:****By the end of the topic the students will be able to:**

- 21.1 Enlist various partial and full coverage indirect restorations.
- 21.2 Describe the principles of tooth preparation for indirect restorations.
- 21.3 Describe the indications and contraindications for provision of: Inlay and Onlay.
- 21.4 Describe the clinical assessment required and the steps of preparation for: Inlay and Onlay.
- 21.5 List materials available for these restorations.

- 21.6 Discuss soft tissue management and impression making for inlays and onlays.  
 21.7 Discuss laboratory steps for these restorations.  
 21.8 Enlist the materials used for cementation.  
 21.9 Describe the clinical procedure for cementation.  
 21.10 Discuss the latest innovations including CAD-CAM technology.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                          | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------------------|-------|-----|-----|------|
| 1   | Partial and full coverage indirect restorations                | SGD   | 3   | ✓   | ✓    |
|     |                                                                |       |     | ✓   |      |
| 2   | Inlays: indications, contraindications and tooth preparation   | WS    |     | ✓   | ✓    |
| 3   | Onlays: indications, contraindications and tooth preparation   | WS    |     | ✓   | ✓    |
| 4   | Steps, materials, soft tissue management and impression making | WS    | 3   | ✓   | ✓    |
|     |                                                                | Total | 6   |     |      |

**COURSE NAME: ADVANCE OPERATIVE-PORCELAIN VENEERS**

**COURSE CODE: FJ04-OPR-22**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 22.1 Discuss indications and contraindications for veneers.  
 22.2 Describe the diagnostic procedures involved in treatment planning.  
 22.3 Explain the importance of quality and quantity of enamel for predictable bonding.  
 22.4 Describe tooth preparation, soft tissue management and impression making for veneers.  
 22.5 Describe methods of temporization.  
 22.6 Describe step by step procedure of veneer placement.  
 22.7 Describe the importance of silane coupling agent and hydro fluoric acid.  
 22.8 Identify techniques for intra oral repair of indirect restorations.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                       | MIT | Hrs | BCQ | OSCE |
|-----|---------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1   | Veneers: indications, contraindications, tooth preparation, impression making and placement | WS  | 3   | ✓   | ✓    |

|   |                                                                                                  |       |   |   |   |
|---|--------------------------------------------------------------------------------------------------|-------|---|---|---|
| 2 | Effects of enamel quality, quality, silane-coupling agent and hydrofluoric acid on bond strength | WS    |   | ✓ | ✓ |
| 3 | Intra-oral repair of indirect restorations                                                       | SGD   | 3 | ✓ | ✓ |
| 4 | Temporization                                                                                    | SGD   |   | ✓ | ✓ |
|   |                                                                                                  | Total | 6 |   |   |

**COURSE NAME: ENDODONTICS - BIOLOGY OF DENTAL PULP AND PERIRADICULAR TISSUE**

**COURSE CODE: FJ04-OPR-23**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 23.1 Recognize the anatomic regions of the pulp and their clinical importance.
- 23.2 Describe the functions of the pulp-dentin complex.
- 23.3 Describe the blood vessels and lymphatics of pulp.
- 23.4 List the neural components of pulp and describe their distribution and function.
- 23.5 Discuss theories of dentin sensitivity.
- 23.6 Describe the pathway of efferent nerves from the pulp to central nervous system.
- 23.7 Describe changes in pulp morphology with age.
- 23.8 Describe the structure and function of periradicular tissues.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                     | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------------------|-------|-----|-----|------|
| 1   | Pulp-Dentine Complex: anatomy, development and function   | LEC   | 1   | ✓   |      |
| 2   | Extracellular matrix, lymphatics and blood supply of pulp | LEC   |     | ✓   |      |
| 3   | Neural components and nerve pathways of the pulp          | LEC   |     | ✓   |      |
| 4   | Dentin sensitivity                                        | LEC   |     | ✓   |      |
| 5   | Age changes in pulp morphology                            | LEC   |     | ✓   |      |
|     |                                                           | Total | 1   |     |      |

**COURSE NAME: ENDODONTICS - PRESERVING PULP VITALITY****COURSE CODE: FJ04-OPR-24****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

24.1 Understand physiologic and structural characteristics of pulp and how it affects pulp response to injury.

24.2 Discuss iatrogenic effects on the dental pulp by:

24.3 Local anesthetics with vasoconstrictor, cavity/ crown preparation (thermal shock), Depth of cavity preparation, various restorative materials, placement of pins, polishing restorations, post-restoration hypersensitivity, orthodontic tooth movement and vital bleaching.

24.4 Discuss the formation and role of tertiary dentin in pulp protection.

24.5 Discuss preventive measures during dental restorative procedures to preserve pulp vitality.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                     | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------------------|-------|-----|-----|------|
| 1   | Pulp Injuries                                             | LEC   | 1   | ✓   |      |
| 2   | Iatrogenic effects of dental operative procedures on pulp | LEC   |     | ✓   |      |
| 3   | Role of tertiary dentin in pulp protection                | LEC   |     | ✓   |      |
| 4   | Preventive measures to prevent pulp vitality              | LEC   |     | ✓   |      |
| 5   | Pulpal Vitality Testing                                   | WS    | 3   | ✓   |      |
|     |                                                           | Total | 4   |     |      |

**COURSE NAME: ENDODONTICS - ENDODONTIC MICROBIOLOGY****COURSE CODE: FJ04-OPR-25****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

25.1 Describe the routes of entry of microorganisms to the pulp and periradicular tissues.

25.2 Discuss the different types of endodontic infections.

25.3 Describe the various microbial species involved in different types of endodontic infections.

25.4 Discuss ecology of endodontic microbiota and features of endodontic ecosystem.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                            | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Microorganisms involved and routes of entry in pulpal infections | LEC   | 1   | ✓   |      |
| 2   | Types of endodontic infections                                   | LEC   |     | ✓   |      |
| 3   | Microbial species and ecology of microbiota                      | LEC   |     | ✓   |      |
| 4   | Endodontic ecosystem                                             | LEC   |     | ✓   |      |
|     |                                                                  | Total | 1   |     |      |

**COURSE NAME: ENDODONTICS - PULP AND PERIRADICULAR PATHOSIS****COURSE CODE: FJ04-OPR-26****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 26.1 Identify etiological factors of pulp inflammation.
- 26.2 Explain mechanism of spread of inflammation in the pulp.
- 26.3 Explain why the pulp has difficulty in recovering from severe injury.
- 26.4 List specific and non-specific indicators of pulpal inflammation.
- 26.5 Classify pulpal diseases along with their clinical and histological features.
- 26.6 Describe the mechanisms and explain consequences of spread of pulpal inflammation into periradicular tissues.
- 26.7 Classify periradicular lesions of pulpal origin along with their clinical and histological features.
- 26.8 Describe steps involved in repair of periapical pathosis after successful root canal treatment.
- 26.9 Identify and describe non-endodontic lesions that may simulate endodontic periradicularpathosis.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                               | MIT   | Hrs | BCQ | OSCE |
|-----|---------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Pulpal inflammation : etiology, mechanism and recovery              | LEC   | 1   | ✓   |      |
| 2   | Pulpal diseases: classification, clinical and histological features | LEC   |     | ✓   | ✓    |
| 3   | Periradicular lesions: classification, origin, spread and features  | LEC   | 1   | ✓   | ✓    |
| 4   | Repair of periapical pathosis                                       | LEC   |     | ✓   | ✓    |
| 5   | Non-endodontic lesions                                              | LEC   |     | ✓   | ✓    |
| 6   | Pulp and Periapical classification and diagnosis                    | SGD   | 4   | ✓   | ✓    |
|     |                                                                     | Total | 6   |     |      |

**COURSE NAME: ENDODONTICS - ENDODONTIC DIAGNOSIS AND TREATMENT PLAN****COURSE CODE: FJ04-OPR-27****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 27.1 Discuss the correct questions regarding history and symptoms of presenting complaint.
- 27.2 Understand the importance of a thorough medical and dental history.
- 27.3 Perform complete extra and intraoral examination to ascertain pulpal and periapical health.
- 27.4 Describe various vitality tests, interpret their findings and understand their limitations.
- 27.5 Correlate radiographic findings to the history and clinical examination.
- 27.6 Discuss the common medical diseases that may influence endodontic treatment planning.
- 27.7 Discuss special considerations when planning treatment for geriatric patients.
- 27.8 Consolidate all the data to formulate a diagnosis and treatment plan.
- 27.9 Discuss the importance of an informed consent before any treatment.
- 27.10 Understand the importance of referral to an endodontist in certain cases.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                       | MIT   | Hrs | BCQ | OSCE |
|-----|-------------------------------------------------------------|-------|-----|-----|------|
| 1   | Thorough medical and dental history taking                  | Lec   | 1   | ✓   | ✓    |
| 2   | Extraoral, intraoral examination and pulp vitality testing  | WS    | 1   | ✓   | ✓    |
| 3   | Correlation of radiographic finding to clinical examination | WS    | 2   | ✓   | ✓    |
| 5   | Formulate a diagnosis and treatment plan                    | WS    |     | ✓   | ✓    |
|     |                                                             | Total | 4   |     |      |

**COURSE NAME: ENDODONTICS - ENDODONTIC RADIOLOGY****COURSE CODE: FJ04-OPR-28****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 28.1 Describe importance of radiographs in endodontics.
- 28.2 Identify normal anatomic structures of maxilla and mandible on radiograph.
- 28.3 Describe radiographic characteristics to differentiate between endodontic and non-endodontic radiolucencies and radioopacities.
- 28.4 Describe radiographic characteristics of periapical lesion of endodontic origin.

- 28.5 Describe reasons for varying horizontal and vertical cone angulations to create image shift.  
 28.6 Describe the SLOB rule.  
 28.7 Describe new technologies for radiographic imaging.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------|-------|-----|-----|------|
| 1   | Types of Radiographs, their indications and findings | LEC   | 1   | ✓   | ✓    |
| 2   | Endodontic and non-endodontic radiolucencies         | WS    | 2   | ✓   | ✓    |
| 3   | X-ray techniques and the SLOB rule                   | WS    | 1   | ✓   | ✓    |
| 4   | New technologies in radiographic imaging             | WS    |     | ✓   | ✓    |
|     |                                                      | Total | 4   |     |      |

**COURSE NAME: ENDODONTICS - PULP ANATOMY**

**COURSE CODE: FJ04-OPR-29**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 29.1 Understand the relationship of shape of pulp system to root anatomy.  
 State laws of canal orifice location.  
 29.2 List and recognize significance of iatrogenic or pathologic factors that may cause alterations in pulp anatomy.  
 29.3 Define pulp space and list and describe its major components.  
 29.4 Describe variations in the pulp system in apical third.  
 29.5 Describe how to determine clinically the distance from occlusal/incisal surface to the roof of chamber.  
 29.6 Describe accessory canals.  
 29.7 Describe relationship between anatomic, radiographic and actual location of apical foramen.  
 29.8 Describe common variations in pulp anatomy resulting from developmental abnormalities.  
 29.9 Describe changes in pulp anatomy that occur with age.  
 29.10 Draw a representative example of the most common internal and external anatomy of each tooth in sagittal section and in cross section.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                      | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------------|-------|-----|-----|------|
| 1   | Pulp system and root anatomy                               | LEC   | 1   | ✓   |      |
| 2   | Changes in pulpal anatomy and laws of orifice location     | LEC   |     | ✓   |      |
| 3   | Apical third and accessory canals                          | LEC   |     | ✓   |      |
| 4   | Apical foramen: anatomic, radiographic and actual location | LEC   |     | ✓   |      |
| 5   | Internal and external anatomy of each tooth                | LEC   |     | ✓   |      |
| 6   | Age changes in pulp anatomy                                | LEC   |     | ✓   |      |
| 7   | Pulpal Anatomy                                             | SGD   | 4   | ✓   |      |
|     |                                                            | Total | 5   |     |      |

**COURSE NAME: ENODONTICS - INSTRUMENTS IN ENDODONTICS****COURSE CODE: FJ04-OPR-30****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 30.1 Define a basic set of instruments appropriate for various endodontic procedures.
- 30.2 Describe the general physical properties of instruments.
- 30.3 Describe the design of common canal preparation instruments and their mode of use.
- 30.4 Explain the basis for sizing and taper of hand operated instruments.
- 30.5 Describe proper use of instruments to prevent breakage within canal.
- 30.6 Recognize visible changes in instruments that will predispose to breakage.
- 30.7 Describe techniques for sterilization and disinfection.
- 30.8 Describe nickel titanium rotary instruments.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                      | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------------|-------|-----|-----|------|
| 1   | Endodontic instruments: properties, design and mode of use | DEMO  | 2   | ✓   | ✓    |
| 2   | Proper protocol of using instruments to prevent breakage   | DEMO  |     | ✓   | ✓    |
| 3   | Hand instruments: sizing, taper and visible changes        | DEMO  | 1   | ✓   | ✓    |
| 4   | Ni-Ti rotary instruments                                   | DEMO  |     | ✓   | ✓    |
|     |                                                            | Total | 3   |     |      |

**COURSE NAME: ENDODONTICS - LOCAL ANESTHESIA IN ENDODONTICS****COURSE CODE: FJ04-OPR-31****COURSE OBJECTIVES:****By the end of the topic the students will be able to:**

- 31.1 Define pain threshold and the factors affecting pain threshold.
- 31.2 List techniques that are helpful in giving "painless" injections.
- 31.3 Describe the "routine" approach to conventional local anesthesia.
- 31.4 Describe circumstances that create difficulties in obtaining profound anesthesia.
- 31.5 Describe when to use supplemental methods of obtaining pulpal anesthesia.
- 31.6 Review techniques of intraosseous, periodontal ligament, and intrapulpal injections.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                   | MIT   | Hrs | BCQ |
|-----|-------------------------------------------------------------------------|-------|-----|-----|
| 1   | Pain threshold: definition and factors affecting pain                   | LEC   | 1   | ✓   |
| 2   | Painless injecting techniques                                           | LEC   |     | ✓   |
| 3   | Conventional approaches of local anesthesia                             | SGD   | 6   | ✓   |
| 4   | Circumstances hindering in obtaining effective anesthesia               | SGD   |     | ✓   |
| 5   | Supplemental, intraosseous, intraligamentary and intrapulpal techniques | SGD   |     | ✓   |
|     |                                                                         | Total | 7   |     |

**COURSE NAME: ENDODONTICS - ISOLATION, ENDODONTIC ACCESS, AND LENGTH DETERMINATION****COURSE CODE: FJ04-OPR-32****COURSE OBJECTIVES:****By the end of the topic the students will be able to:**

- 32.1 Discuss methods of isolation in endodontics with emphasis on rubber dam isolation.
- 32.2 Describe importance of pre-operative assessment as pre-requisite for treatment success.
- 32.3 Discuss the importance of pre-endodontic buildup.
- 32.4 Describe the objectives of access cavity preparation.
- 32.5 Describe the general principles of endodontic access cavity.
- 32.6 Describe the procedure, armamentarium and sequence for access cavity preparation.
- 32.7 Describe and draw outline of access cavity of each tooth.
- 32.8 Describe average length and canal configuration of various teeth.
- 32.9 Describe technique for locating canal orifices.
- 32.10 Identify errors during access and know how to correct them.
- 32.11 Describe various methods of working length determination.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                         | MIT   | Hrs | BCQ | OSCE |
|-----|---------------------------------------------------------------|-------|-----|-----|------|
| 1   | Isolation : methods and importance of rubber dam placement    | LEC   | 1   | ✓   | ✓    |
| 2   | Access cavity: objectives, principles, procedure and sequence | WS    | 3   | ✓   | ✓    |
| 3   | Canal configuration of various teeth                          | LEC   | 1   | ✓   | ✓    |
| 4   | Methods of locating canal orifices                            | LEC   |     | ✓   | ✓    |
| 5   | Methods of working length determination                       | WS    | 3   | ✓   | ✓    |
|     |                                                               | Total | 8   |     |      |

**COURSE NAME: ENDODONTICS - CLEANING AND SHAPING****COURSE CODE: FJ04-OPR-33****COURSE OBJECTIVES:****By the end of the topic the students will be able to:**

- 33.1 Describe why infection of pulp space is different from other tissues of body.
- 33.2 Identify purpose of cleaning the pulp space.
- 33.3 Describe purpose of shaping along with the mechanical objectives.
- 33.4 Understand and explain the concept of apical patency.
- 33.5 Describe basic and combined instruments movements.
- 33.6 Describe different techniques of canal preparation.
- 33.7 Explain step-back and crown-down technique.
- 33.8 Explain how to minimize preparation errors in curved canal.
- 33.9 Discuss management of calcified canals.
- 33.10 Discuss NiTi rotary instruments and its efficacy over SS files.
- 33.11 Explain the importance of irrigants.
- 33.12 List properties of an ideal irrigant and name various agents used.
- 33.13 Describe irrigation techniques that provide maximum irrigant effect.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                         | MIT | Hrs | BCQ    | OSCE |
|-----|---------------------------------------------------------------|-----|-----|--------|------|
| 1   | Objectives and principles of cleaning and shaping             | LEC | 2   | ✓      | ✓    |
| 2   | Basic and combined instrument movements for canal preparation | WS  | 2   | ✓<br>✓ | ✓    |

|   |                                                           |       |   |   |   |
|---|-----------------------------------------------------------|-------|---|---|---|
| 3 | Differentiate between step-back and crown-down techniques | WS    | 2 | ✓ | ✓ |
| 4 | Differentiate between SS and Ni-Ti files                  | LEC   | 1 | ✓ | ✓ |
| 5 | Irrigants : ideal properties and various agents           | LEC   |   | ✓ | ✓ |
|   |                                                           | Total | 7 |   |   |

**COURSE NAME: ENDODOTICS - INTRA CANAL MEDICAMENTS AND TEMPORARY FILLING MATERIALS**

**COURSE CODE: FJ04-OPR-34**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 34.1 Name different microorganisms involved in endodontic pathosis.
- 34.2 Define intra canal medicament.
- 34.3 Discuss the properties and role of intra-canal, inter-appointment medicaments.
- 34.4 Categorize and name various agents used as intra-canal medicament.
- 34.5 Describe the method of application and instruments used in intra-canal medication.
- 34.6 List temporary filling materials used and describe techniques for their placement and removal.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                | MIT   | Hrs | BCQ | OSCE |
|-----|--------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Define Intracanal medicament, their properties and role in endodontics               | LEC   | 1   | ✓   | ✓    |
| 2   | Categorization and classification of various intracanal medicaments                  | LEC   |     | ✓   | ✓    |
| 3   | Methods of applying medicaments and instruments used                                 | LEC   |     | ✓   | ✓    |
| 4   | List temporary filling materials and techniques used for their placement and removal | LEC   |     | ✓   | ✓    |
|     |                                                                                      | Total | 1   |     |      |

**COURSE NAME: ENDODONTICS - ROOT CANAL OBTURATION**

**COURSE CODE: FJ04-OPR-35**

**LEARNING OBJECTIVES:**

By the end of the topic the students will be able to:

- 35.1 Describe the purpose of obturation and reasons why inadequate obturation may result in treatment failure.
- 35.2 Recognize the clinical criteria that determines time of obturation.
- 35.3 List the properties of ideal obturation material.
- 35.4 Name core obturation materials.
- 35.5 Describe the composition and properties of guttapercha.
- 35.6 Describe advantages and disadvantages of each core material.
- 35.7 List properties of ideal sealer and understand the need for using a sealer.
- 35.8 Name various types of sealers.
- 35.9 Name different types of obturation techniques.
- 35.10 Describe lateral condensation technique.
- 35.11 Describe briefly other techniques used for obturation.
- 35.12 Discuss the clinical and radiographic criteria for evaluating the quality of obturation.

#### **MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                           | MIT   | Hrs | BCQ | OSCE |
|-----|---------------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Purpose of obturation and drawbacks of inadequate obturation                    | LEC   | 1   | ✓   | ✓    |
| 2   | Ideal properties of obturating material and different core obturation materials | LEC   |     | ✓   | ✓    |
| 3   | Composition and properties of guttapercha                                       | LEC   | 1   | ✓   | ✓    |
| 4   | Ideal properties of sealer and significance of using sealer                     | LEC   |     | ✓   | ✓    |
| 5   | Describe different obturation techniques and methods                            | WS    | 3   | ✓   | ✓    |
| 6   | Describe criteria of evaluating quality of obturation                           | WS    |     | ✓   | ✓    |
|     |                                                                                 | Total | 5   |     |      |

#### **COURSE NAME: ENDODONTICS - PROCEDURAL ACCIDENTS**

#### **COURSE CODE: FJ04-OPR-36**

#### **COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 36.1 Recognize procedural accidents and describe their causes, prevention and treatment during:
- Access cavity preparation, cleaning and shaping and obturation.
- 36.2 Define and describe the following errors including their management:
- Transportation, ledge formation, elbow and zipping
  - Root perforations- apical, middle and coronal, separated instruments, aspiration and ingestion
  - Hypochlorite accident and air emphysema.

36.3 Discuss how procedural errors can affect the prognosis of treatment.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                          | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------------------|-------|-----|-----|------|
| 1   | Procedural Accidents: types, causes, prevention and management | LEC   | 1   | ✓   | ✓    |
| 2   | Prognosis of Treatment with Procedural accidents               | LEC   | 1   | ✓   | ✓    |
| 3   | Procedural Accidents                                           | SGD   | 4   | ✓   | ✓    |
|     |                                                                | Total | 6   |     |      |

**COURSE NAME: ENDODONTICS - ENDODONTIC EMERGENCIES**

**COURSE CODE: FJ04-OPR-37**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

37.1 Identify causes of emergencies before treatment, inter-appointment and after obturation.

37.2 Describe emotional status of emergency patient and explain how this complicates diagnosis and treatment.

37.3 Explain the importance of sequential approach to endodontic emergencies:

- a) Determine source of pain, establish a pulpal and periapical diagnosis, design an emergency (short term) treatment plan and design a long term treatment plan.

37.4 Describe how to manage various endodontic emergencies including:

- a) Painful irreversible pulpitis, necrotic pulp with acute apical periodontitis, acute apical abscess and acute apical periodontitis.

37.5 Recognize inter-appointment and post-obturation flareups and describe their management.

37.6 Discuss pharmacological therapy used in emergency and its role in controlling pain and infection.

37.7 Understand the indications and contraindications for prescribing analgesics, antibiotics, anti-inflammatory agents and anxiolytics.

37.8 Discuss development of a treatment plan consisting of appropriate endodontic and pharmacologic strategies for managing pain, anxiety, and infection.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                      | MIT | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------------------------------|-----|-----|-----|------|
| 1   | Endodontic emergencies: identify causes, time of occurrence and management | LEC | 1   | ✓   | ✓    |
| 2   | Sequential approach in managing emergency patient                          | LEC |     | ✓   | ✓    |
| 3   | Flare-ups: interappointment and postoperative management                   | LEC | 1   | ✓   | ✓    |

|   |                                                                                          |       |   |   |   |
|---|------------------------------------------------------------------------------------------|-------|---|---|---|
| 4 | Indications and contraindications of pharmacological management                          | LEC   |   | ✓ | ✓ |
| 5 | Combining pharmacological and endodontic therapies to manage pain, anxiety and infection | LEC   |   | ✓ | ✓ |
| 6 | Endodontic Emergencies                                                                   | SGD   | 4 | ✓ | ✓ |
|   |                                                                                          | Total | 6 |   |   |

## **COURSE NAME: ENDODONTICS - RESTORATION OF ENDODONTICALLY TREATED TOOTH**

**COURSE CODE: FJ04-OPR-38**

### **COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 38.1 Explain why endodontically treated teeth are different from vital teeth.
- 38.2 Explain the importance of coronal seal.
- 38.3 Discuss options available for restoring endodontically treated teeth.
- 38.4 Explain ferrule effect.
- 38.5 Describe indications of post placement in anterior and posterior teeth.
- 38.6 Describe Nayyar Core.
- 38.7 Describe ideal dimensions of a post.
- 38.8 Describe common post systems, their advantages and disadvantages.
- 38.9 Describe method of placement of prefabricated and cast post.
- 38.10 Describe core materials and their placement.
- 38.11 Discuss complications that can occur during placement of post.

### **MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                                                                   | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Identify and compare endodontically treated and vital teeth                                                                             | LEC   | 2   | ✓   | ✓    |
| 2   | Different options for restoring endodontically treated teeth                                                                            | LEC   |     | ✓   | ✓    |
| 3   | Ferrule effect                                                                                                                          | WS    | 3   | ✓   | ✓    |
| 4   | Core materials and nayyar core                                                                                                          | WS    |     | ✓   | ✓    |
| 5   | Posts: systems, indications, contraindications, ideal dimensions, advantages, disadvantages and complications associated with placement | WS    |     | ✓   | ✓    |
|     |                                                                                                                                         | Total | 5   |     |      |

**COURSE NAME: ENDODONTICS - NONSURGICAL ENDODONTIC RETREATMENT****COURSE CODE: FJ04-OPR-39****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 39.1 State rationale and indications of endodontic retreatment.
- 39.2 Describe the alternates to endodontic retreatment.
- 39.3 Describe technique of accessing through extra coronal restorations.
- 39.4 Describe technique of removing crowns and posts.
- 39.5 Identify various types of canal obstructions and describe their management.
- 39.6 Describe the techniques for guttapercha removal.
- 39.7 Explain the role of intra-canal medicament in retreatment.
- 39.8 Discuss prognosis of retreatment.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                      | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Endodontic Retreatment: Indications, techniques and alternative techniques | LEC   | 1   | ✓   | ✓    |
| 2   | Access through extracoronar restorations, removal of crowns and posts      | LEC   |     | ✓   | ✓    |
| 3   | Guttapercha removal                                                        | LEC   | 1   | ✓   | ✓    |
| 4   | Intracanal medicaments in retreatment                                      | LEC   |     | ✓   | ✓    |
| 5   | Prognosis of retreatment                                                   | LEC   |     | ✓   | ✓    |
| 6   | Endodontic Retreatment                                                     | SGD   | 4   | ✓   | ✓    |
|     |                                                                            | Total | 6   |     |      |

**COURSE NAME: ENDODONTICS - ENDODONTIC SURGERY****COURSE CODE: FJ04-OPR-40****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 40.1 Discuss the role of endodontic surgery alone or in combination with nonsurgical root canal therapy.
- 40.2 Recognize situations when endodontic surgery is contraindicated.
- 40.3 Define the terms:
  - b) Incision for drainage, apical curettage, root-end resection, root-end preparation, root-end filling, root amputation, hemisection and bicuspidization.
- 40.4 Discuss indications for the above mentioned procedures.
- 40.5 State principles of flap design.
- 40.6 Illustrate various flap designs.
- 40.7 Describe in brief, step by step procedures involved in peri-radicular surgery.
- 40.8 Discuss prognosis of endodontic surgical cases.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                             | MIT   | Hrs | BCQ | OSCE |
|-----|-------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Endodontic surgery: indications, contraindications and procedures | LEC   | 1   | ✓   | ✓    |
| 2   | Terminology in endodontic surgery                                 | LEC   |     | ✓   | ✓    |
| 3   | Flap design: classifications and principles                       | LEC   |     | ✓   | ✓    |
| 4   | Peri-radicular surgery                                            | LEC   |     | ✓   | ✓    |
| 5   | Prognosis of endodontic surgery                                   | LEC   |     | ✓   | ✓    |
| 6   | Endodontic Surgery                                                | SGD   | 5   | ✓   | ✓    |
|     |                                                                   | Total | 6   |     |      |

**COURSE NAME: ENDODONTICS - LONGITUDINAL TOOTH FRACTURES****COURSE CODE: FJ04-OPR-41****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

41.1 Define and differentiate:

- a) Craze line
- b) Cusp fracture
- c) Cracked tooth
- d) Split tooth
- e) Vertical root fracture.

41.2 Describe the causes of these fractures of tooth structure.

41.3 Describe symptoms and clinical features of crack tooth.

41.4 Discuss the diagnosis, treatment, prognosis and prevention of a crack at various levels.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                   | MIT   | Hrs | BCQ | OSCE |
|-----|-------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Longitudinal Tooth Fractures: Causes, clinical Diagnosis and Management | LEC   | 1   | ✓   | ✓    |
| 2   | Cracked tooth: Features and Management                                  | LEC   |     | ✓   | ✓    |
| 3   | Prognosis of cracks at different levels                                 | LEC   |     | ✓   | ✓    |
| 4   | Cracks and Fractures                                                    | SGD   | 4   | ✓   | ✓    |
|     |                                                                         | Total | 5   |     |      |

**COURSE NAME: ENDODONTICS - ENDODONTIC AND PERIODONTAL INTER  
RELATIONSHIP**

**COURSE CODE: FJ04-OPR-42**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 42.1 Discuss possible paths of communication between pulpal and periodontal tissue.
- 42.2 Classify endodontic-periodontal lesions.
- 42.3 Discuss the differential diagnosis between lesions of endodontic or periodontal origin based on clinical, radiographic and histopathological features.
- 42.4 Discuss treatment options.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                 | MIT   | Hrs | BCQ | OSCE |
|-----|---------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Classification of endodontic-periodontal lesions                                      | LEC   | 1   | ✓   | ✓    |
| 2   | Differential diagnosis based on clinical, radiographic and histopathological features | LEC   |     | ✓   | ✓    |
| 3   | Paths of communication between pulpal and periodontal tissues                         | LEC   |     | ✓   | ✓    |
| 4   | Treatment options of endodontic-periodontal lesions                                   | LEC   |     | ✓   | ✓    |
| 5   | Perio-endo Disease                                                                    | SGD   | 3   | ✓   | ✓    |
|     |                                                                                       | Total | 4   |     |      |

**COURSE NAME: PAEDODONTICS- INTRODUCTION TOPEDIATRIC DENTISTRY**

**COURSE CODE: FJ04-OPR-43**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to

- 43.1 Discuss growth and development of jaws and dentition.
- 43.2 Understand the differences between permanent and primary teeth.
- 43.3 Discuss the chronology of development of primary and permanent dentition.
- 43.4 Discuss eruption timing and sequence of primary and permanent teeth.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                         | MIT   | Hrs | BCQ |
|-----|-----------------------------------------------|-------|-----|-----|
| 1   | Growth and development of jaws and dentition  | SGD   | 4   | ✓   |
| 2   | Primary and permanent dentitions              | SGD   |     | ✓   |
| 3   | Chronology of both dentitions                 | SGD   | 4   | ✓   |
|     |                                               |       | 3   | ✓   |
| 4   | Eruption timing and sequence of primary teeth | SGD   |     | ✓   |
|     |                                               | Total | 11  |     |

**COURSE NAME: PAEDODONTICS-PAIN AND ANXIETY MANAGEMENT IN PEDIATRIC PATIENTS****COURSE CODE: FJ04-OPR-44****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

44.1 Enlist various pharmacological and non-pharmacological methods of pain and anxiety control.

44.2 Discuss different behavioral management strategies for pediatric patients.

44.3 Describe different sedation techniques for pediatric patients.

44.4 Discuss the dental management of children with special needs

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                            | MIT   | Hrs | BCQ | OSCE |
|-----|--------------------------------------------------|-------|-----|-----|------|
| 1   | Methods of pain and anxiety control              | LEC   | 1   | ✓   | ✓    |
| 2   | Behavioral management strategies                 | LEC   |     | ✓   | ✓    |
|     |                                                  |       |     | ✓   |      |
| 3   | Behavioral management                            | SGD   | 5   | ✓   | ✓    |
| 4   | Conscious sedation                               | SGD   |     | ✓   | ✓    |
| 5   | Dental management of children with special needs | SGD   |     | ✓   | ✓    |
|     |                                                  | Total | 6   |     |      |

**COURSE NAME: PREVENTION OF DENTAL DISEASE IN PEDIATRIC PATIENTS****COURSE CODE: FJ04-OPR-45****COURSE OBJECTIVES:**

**By the end of the topic the students will be able to:**

- 45.1 Discuss the importance of a detailed medical and dental history for management of the pediatric patient.
- 45.2 Describe various medical conditions that may affect the management of pediatric patient.
- 45.3 Discuss effects of diet on dental tissues and describe various sources of sugars.
- 45.4 Discuss the effect of fluoride on dental caries process.
- 45.5 Explain the rationale for fluoride supplementation.
- 45.6 Describe different vehicles of fluoride delivery.
- 45.7 Describe correct tooth brushing technique.
- 45.8 Explain the importance of parental counseling.
- 48.9 Describe the importance of dietary management and home care in caries prevention.
- 48.10 Discuss the importance of regular dental follow-ups.
- 48.11 Understand the importance of fissure sealing and acid etch technique as a preventive measure.
- 48.12 Describe the placement of pit and fissure sealants and preventive resin restorations in primary teeth.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                        | MIT   | Hrs | BCQ | OSCE |
|-----|--------------------------------------------------------------|-------|-----|-----|------|
| 1   | Medical and dental history taking in children                | LEC   | 1   | ✓   | ✓    |
| 2   | Effects of sugary diet on dental caries                      | LEC   |     | ✓   | ✓    |
| 3   | Parent counseling, proper toothbrushing and fluoride therapy | LEC   |     | ✓   | ✓    |
| 4   | Counselling                                                  | SGD   | 4   | ✓   | ✓    |
| 5   | Regular dental followups, dietary management and home care   | LEC   | 1   | ✓   | ✓    |
| 6   | Fissure sealants and preventive resin restorations           |       |     | ✓   | ✓    |
|     |                                                              | Total | 6   |     |      |

**COURSE NAME: PEADODONTICS-LOCAL ANESTHESIA TECHNIQUE FOR PEDIATRIC PATIENTS**

**COURSE CODE: FJ04-OPR-46**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 46.1 Describe available topical anesthesia solutions.
- 46.2 Describe new techniques for achieving topical anesthesia.
- 46.3 List various techniques of local anesthesia administration.
- 46.4 Describe pain free anesthesia technique.
- 46.5 Discuss possible complications of local anesthesia.
- 46.6 Discuss the dental management of children with special needs

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                             | MIT   | Hrs | BCQ |
|-----|---------------------------------------------------|-------|-----|-----|
| 1   | Local anesthesia technique for pediatric patients | LEC   | 1   | ✓   |
| 2   | Pain free anesthesia techniques                   | LEC   |     | ✓   |
| 3   | Complications of local anesthesia                 | LEC   |     | ✓   |
| 4   | Local Anesthesia Techniques and Calculation       | WS    | 4   | ✓   |
|     |                                                   | Total | 5   |     |

**COURSE NAME: PAEDODONTICS- RESTORATIVE DENTISTRY FOR PEDIATRIC PATIENTS****COURSE CODE: FJ04-OPR-47****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 47.1 Discuss methods to detect and diagnose dental caries in primary teeth.
- 47.2 Describe the pattern of early childhood caries and its management.
- 47.3 Discuss the radiographic views that are of value in diagnosing dental caries.
- 47.4 Explain the importance of isolation when restoring teeth.
- 47.5 Explain the importance of matricing in proximal decay.
- 47.6 Discuss restorative materials that can be used to restore a carious lesion.
- 47.7 Describe restoration of occlusal and proximal caries.
- 47.8 Describe the indications for stainless steel crowns and acrylic crowns.
- 47.9 Describe the technique for stainless steel crown and acrylic crown placement.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                              | MIT   | Hrs | BCQ | OSCE |
|-----|--------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Detection and diagnosis of deciduous caries                        | LEC   | 1   | ✓   | ✓    |
| 2   | ECC: causes and management                                         | LEC   |     | ✓   | ✓    |
| 3   | Isolation and matricing in proximal restorations                   | LEC   |     | ✓   | ✓    |
| 4   | Restorative materials and methods for occlusal and proximal caries | LEC   |     | ✓   | ✓    |
| 5   | Indications and procedure of SS crowns and strip crowns            | LEC   | 1   | ✓   | ✓    |
| 6   | Stainless steel crowns                                             | SGD   | 3   | ✓   | ✓    |
|     |                                                                    | Total | 5   |     |      |

**COURSE NAME: PAEDODONTICS -PULP THERAPY FOR PRIMARY AND YOUNG PERMANENT TEETH**

**COURSE CODE: FJ04-OPR-48**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 48.1 Understand the development of a tooth from its eruption to root maturation.
- 48.2 Explain the need to save a primary tooth.
- 48.3 Describe the importance of case assessment.
- 48.4 Describe the indications and contraindications of pulp therapy in deciduous teeth.
- 48.5 Describe the stabilization of mouth in case of rampant caries.
- 48.6 Describe the indications, contraindications and procedures in primary dentition for:
  - a) Pulp cap, pulpotomy and pulpectomy.
- 48.7 Describe indications, contraindications and procedure in young permanent dentition for:
  - a) Indirect pulp cap, direct pulp cap,vek'spulpotomy, alexogenesis and apexification.
- 48.8 Discuss the role of regenerative endodontics in the management of non-vital immature teeth.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                         | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Primary tooth development and root maturation                                                 | LEC   | 1   | ✓   | ✓    |
| 2   | Case assessment in saving primary dentition                                                   | LEC   |     | ✓   | ✓    |
| 3   | Stabilization of rampant caries                                                               | LEC   | 1   | ✓   | ✓    |
| 4   | Pulp therapies : indications, contraindications in both primary and young permanent dentition | LEC   | 1   | ✓   | ✓    |
| 5   | Regenerative endodontics                                                                      | LEC   |     | ✓   | ✓    |
| 6   | Pulpcap, pulpotomy and pulpectomy                                                             | SGD   | 6   | ✓   | ✓    |
|     |                                                                                               | Total | 9   |     |      |

**COURSE NAME: PAEDODONTICS -INHERITED ANOMALIES OF ENAMEL AND DENTIN**

**COURSE CODE: FJ04-OPR-49**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 49.1 Enlist various inherited enamel and dentin defects.
- 49.2 Recognize the clinical problems associated and treatment objectives with inherited enamel and dentin defects.

- 49.3 Discuss the etiology, prevention, clinical features and management of:  
 a) Amelogenesis Imperfecta, Dentinogenesis Imperfecta and Molar Incisor Hypoplasia.  
 49.4 Discuss the dental management of children with special needs

**MODE OF INFORMATION TRANSFER (MIT)& ASSESSMENT:**

| S.R | Topic                                                            | MIT   | Hrs        | BCQ | OSCE |
|-----|------------------------------------------------------------------|-------|------------|-----|------|
| 1   | Inherited defects of enamel and dentin                           | LEC   | 1<br><br>1 | ✓   | ✓    |
| 2   | Amelogenesis imperfect: etiology, features and management        | LEC   |            | ✓   | ✓    |
| 3   | Dentinogenesis imperfect: etiology, features and management      | LEC   |            | ✓   | ✓    |
| 4   | Molar-Incisor-Hypoplasia: identification, etiology and treatment | LEC   |            | ✓   | ✓    |
| 5   | Developmental Anomalies                                          | SGD   | 4          | ✓   | ✓    |
|     |                                                                  | Total | 6          |     |      |

**COURSE NAME: PAEDODONTICS -PERIODONTAL DISEASES IN PEDIATRIC PATIENTS**  
**COURSE CODE: FJ04-OPR-50**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 50.1 Classify periodontal diseases in children.
- 50.2 Discuss the etiology, clinical features and management of acute gingival conditions:
- 50.3 Primary herpetic gingivostomatitis
- 50.4 Necrotizing ulcerative gingivitis.
- 50.5 Discuss the etiology, clinical features and management of chronic gingivitis and periodontitis.
- 50.6 Discuss etiology, clinical features and management of drug induced gingival enlargement.
- 50.7 Discuss periodontal disease as a manifestation of various syndromes and systemic diseases in children.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                                                      | MIT   | Hrs        | BCQ | OSCE |
|-----|--------------------------------------------------------------------------------------------|-------|------------|-----|------|
| 1   | Periodontal diseases in children: classification, etiology & features                      | LEC   | 1<br><br>1 | ✓   | ✓    |
| 2   | Gingival diseases: acute and chronic, prevention & treatment                               | LEC   |            | ✓   | ✓    |
| 3   | Periodontal diseases as manifestation of many systemic and syndromic underlying conditions | LEC   |            | ✓   | ✓    |
|     |                                                                                            | Total | 2          |     |      |

**COURSE NAME: PAEDODONTICS -ANOMALIES OF TOOTH FORMATION AND ERUPTION**

**COURSE CODE: FJ04-OPR-51**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 51.1 Discuss the prevalence, etiology and management of variation in number of teeth.
- 51.2 Discuss various anomalies in tooth size and their management.
- 51.3 Discuss various anomalies of tooth form and their management.
- 51.4 Describe disturbances in eruption and exfoliation and its clinical significance.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                      | MIT   | Hrs | BCQ | OSCE |
|-----|------------------------------------------------------------|-------|-----|-----|------|
| 1   | Anomalies of number of teeth                               | LEC   | 1   | ✓   | ✓    |
| 2   | Anomalies of tooth size                                    | LEC   |     | ✓   | ✓    |
| 3   | Anomalies of tooth form                                    | LEC   |     | ✓   | ✓    |
| 4   | Disturbances in eruption and exfoliation time and sequence | LEC   |     | ✓   | ✓    |
| 5   | Anomalies of tooth formation                               | SGD   | 4   | ✓   | ✓    |
|     |                                                            | Total | 6   |     |      |

**COURSE NAME: PEADODONTICS - THE PAEDODONTIC-ORTHODONTIC INTERFACE**

**COURSE CODE: FJ04-OPR-52**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 52.1 Understand the importance of screening patients for orthodontic referral at the correct time.
- 52.2 Define interceptive orthodontics.
- 52.3 Discuss the rationale and sequence of serial extractions.
- 52.4 Enlist and discuss various space maintainers used in mixed dentition.
- 52.5 Enlist and describe various habit breaking appliances in pediatric patients.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                     | MIT | Hrs | BCQ | OSCE |
|-----|---------------------------|-----|-----|-----|------|
| 1   | Interceptive orthodontics | LEC | 1   | ✓   | ✓    |
| 2   | Serial extractions        | LEC |     | ✓   | ✓    |

|   |                        |       |   |   |   |
|---|------------------------|-------|---|---|---|
| 3 | Space maintainers      | LEC   |   | ✓ | ✓ |
| 4 | Habit breaking devices | LEC   |   | ✓ | ✓ |
| 5 | Paedo-ortho interface  | SGD   | 4 | ✓ | ✓ |
|   |                        | Total | 5 |   |   |

**COURSE NAME: PAEDODONTICS - BIOLOGY OF DENTAL PULP AND PERIRADICULAR TISSUE**

**COURSE CODE: FJ04-OPR-53**

**LEARNING OBJECTIVES:**

By the end of the topic the students will be able to:

- 53.1 Classify dento-alveolar injuries.
- 53.2 Understand the importance of a detailed history of trauma including past medical and dental history.
- 53.3 Enlist the questions to be inquired from a patient presenting with history of dental trauma.
- 53.4 Perform a thorough extra-oral and intra-oral examination.
- 53.5 Discuss the appropriate radiographs needed for an accurate diagnosis.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                           | MIT   | Hrs | BCQ | OSCE |
|-----|-------------------------------------------------|-------|-----|-----|------|
| 1   | Dento-alveolar injuries in children             | LEC   | 1   | ✓   | ✓    |
| 2   | History taking of traumatic injuries            | LEC   |     | ✓   | ✓    |
| 3   | Complete intra-oral and extra-oral examinations | LEC   | 1   | ✓   | ✓    |
| 4   | Radiographic imaging and interpretation         | LEC   |     | ✓   | ✓    |
|     |                                                 | Total | 2   |     |      |

**COURSE NAME: PAEDODONTICS- INJURY TO TOOTH AND HEALING AFTER TRAUMA**

**COURSE CODE: FJ04-OPR-54**

**COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 54.1 Describe different types of healings.
- 54.2 Describe the healing of pulp and factors affecting its healing.
- 54.3 Describe the healing of periodontium and factors affecting its healing
- 54.4 Describe and differentiate between various types of root resorptions:
- 54.5 External resorption, cervical resorption internal resorption and Replacement resorption.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topic                                                    | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------------------|-------|-----|-----|------|
| 1   | Healing patterns after dental trauma                     | LEC   | 1   | ✓   | ✓    |
| 2   | Healing of pulp and factors affecting it                 | LEC   |     | ✓   | ✓    |
| 3   | Healing of periodontium and factors affecting it         | LEC   |     | ✓   | ✓    |
| 4   | Root resorption: types, etiology, features and treatment | SGD   | 4   | ✓   | ✓    |
|     |                                                          |       |     | ✓   |      |
|     |                                                          | Total | 5   |     |      |

**COURSE NAME: PAEDODONTICS- INJURIES TO PRIMARY DENTITION****COURSE CODE: FJ04-OPR-55****LEARNING OBJECTIVES:**

By the end of the topic the students will be able to:

55.1 Describe management of hard tissue injury in the following categories:

- a) Uncomplicated crown fracture, Complicated crown fracture, Crown-root fracture and Root fracture.

55.2 Describe management of soft tissue injury in following categories:

- a) Concussion, Subluxation, Extrusive luxation, Lateral luxation, Intrusion and Avulsion.

55.3 Describe the sequel of injuries to the primary dentition.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topics                                       | MIT   | Hrs | BCQ | OSCE |
|-----|----------------------------------------------|-------|-----|-----|------|
| 1   | Injuries to primary dentition                | LEC   | 1   | ✓   | ✓    |
| 2   | Management of hard and soft tissues injuries | LEC   |     | ✓   | ✓    |
| 3   | Sequel of injuries to primary dentition      | LEC   |     | ✓   | ✓    |
| 4   | Trauma to primary dentition                  | SGD   | 4   | ✓   | ✓    |
|     |                                              | Total | 5   |     |      |

**COURSE NAME: PAEDODONTICS- INJURY TO PERMANENT DENTITION-HARD TISSUE****COURSE CODE: FJ04-OPR-56****COURSE OBJECTIVES:**

By the end of the topic the students will be able to:

- 56.1 Describe management of hard tissue injury in the following categories:
- Enamel infarction, Enamel fracture, Enamel-dentin fracture, Complicated crown fracture, Uncomplicated
  - crown-root fracture, Complicated crown-root fracture and Root fracture.
- 56.2 Discuss the types and uses of splints.
- 56.3 Describe the duration of splint therapy in each injury.
- 56.4 Describe the procedure for placement of composite and wire splint.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S.R | Topics                                                          | MIT   | Hrs | BCQ | OSCE |
|-----|-----------------------------------------------------------------|-------|-----|-----|------|
| 1   | Management of hard tissue injuries to tooth crown and root      | LEC   | 1   | ✓   | ✓    |
| 2   | Splint therapy: types of splint, uses and duration in each case | LEC   |     | ✓   | ✓    |
| 3   | Placement of composite and wire splint                          | LEC   |     | ✓   | ✓    |
| 4   | Trauma in permanent teeth                                       | SGD   | 8   | ✓   | ✓    |
|     |                                                                 | Total | 9   |     |      |

**COURSE NAME: PAEDODONTICS-** Injury to Permanent Dentition-Luxation and Avulsion

**COURSE CODE:** FJ04-OPR-57

**Learning Objectives: By the end of the topic the students will be able to:**

- 57.1 Describe management of soft tissue injury in following categories:
- Concussion
  - Subluxation
  - Extrusive luxation
  - Lateral luxation
  - Intrusion
  - Avulsion.
- 57.2 Describe duration of splint therapy in each injury.
- 57.3 Describe the rationale of delayed reimplantation of an avulsed tooth.

**Mode of Information Transfer (MIT) & Assessment:**

| S.R |                                                                    | MIT   | Hrs | BCQ | OSCE |
|-----|--------------------------------------------------------------------|-------|-----|-----|------|
| 1   | Injuries soft tissues in permanent dentition: types and management | LEC   | 1   | ✓   | ✓    |
| 2   | Duration of splint therapy in each type of luxation and avulsion   | LEC   |     | ✓   | ✓    |
| 3   | Reimplantation of avulsed teeth                                    | LEC   | 1   | ✓   | ✓    |
| 4   | Avulsion                                                           | SGD   | 6   | ✓   | ✓    |
|     |                                                                    | Total | 8   |     |      |

## **RECOMMENDED COURSE BOOKS:**

### **OPERATIVE DENTISTRY**

1. **Fundamentals of Operative Dentistry, James B.Summit, 5<sup>th</sup> Edition**
2. **Sturdevant's Art & Science of Operative Dentistry, 6<sup>th</sup> Editions**
3. **Pickard's Manual of Operative Dentistry, 9<sup>th</sup> Edition**
4. **Evan's Atlas of Operative Dentistry**

### **PAEDIATRIC DENTISTRY**

1. **Paediatric Dentistry, Richard Welbury, 5<sup>th</sup> Edition**

### **ENDODONTICS**

1. **Endodontics Principles & Practice, Mahmoud Torabinejad, 5<sup>th</sup> Edition**

## **FINAL YEAR BDS – ORAL SURGERY: FJ04-ORS**

### **RATIONALE**

Oral surgery is an important subject as it deals with intra and extra oral conditions arising in the facial region which include pathological, neurological and trauma conditions which are dealt under local and general anesthesia and can be treated with the help of oral surgery to restore facial function and harmony.

### **OUTCOMES**

By the end of final year, the students should be able to;

1. Take history, establish a diagnosis and plan treatment
2. Administer Local anesthesia (Block & infiltrations)
3. Perform simple tooth extractions.
4. Describe radiographic landmarks & findings.
5. Discuss minor oral surgical procedures
6. Discuss maxilla-facial fractures.
7. Discuss pathological & neurological conditions associated with head and neck region.
8. Describe the basic concepts of implantology.

### **LEGEND:**

- **LEC** – Lecture (Large Class Format)
- **SGD** – Small Group Discussion
- **WSP** – Workshop (Hands-on)
- **SCT**– Simulated Clinical Training
- **JC** – Journal Club

### **COURSES:**

- Minor Oral Surgery (MOS)
- Management of Oral Diseases (MOD)
- Maxillofacial Surgery (MFS)

**COURSE: MINOR ORAL SURGERY**

| S.NO  | COURSE             | MODULE                             | LE<br>C | SGD | WSP | SCT | JC | #  |
|-------|--------------------|------------------------------------|---------|-----|-----|-----|----|----|
| 1.    | MINOR ORAL SURGERY | BASIC PRINCIPLES OF ORAL SURGERY   | 3       | 3   | 1   | 1   | 1  | 9  |
| 2.    |                    | MEDICAL ASPECTS OF ORAL SURGERY    | 2       | 2   | 1   | 1   | 0  | 6  |
| 3.    |                    | ANESTHESIA AND SEDATION            | 2       | 2   | 0   | 1   | 0  | 5  |
| 4.    |                    | BASIC PRINCIPLES OF EXODONTIA      | 3       | 2   | 0   | 1   | 0  | 6  |
| 5.    |                    | PRINCIPLES OF USE OF INSTRUMENTS   | 0       | 2   | 1   | 1   | 0  | 4  |
| 6.    |                    | NON-SURGICAL EXTRACTIONS           | 1       | 2   | 0   | 2   | 0  | 5  |
| 7.    |                    | SURGICAL EXTRACTIONS               | 1       | 1   | 0   | 3   | 1  | 6  |
| 8.    |                    | IMPACTED TEETH                     | 4       | 4   | 0   | 0   | 2  | 10 |
| 9.    |                    | INFECTIONS AND SPREAD OF INFECTION | 8       | 3   | 0   | 0   | 0  | 11 |
| TOTAL |                    |                                    | 24      | 21  | 3   | 10  | 4  | 62 |

**COURSE: MANAGEMENT OF ORAL DISEASES**

| S.NO  | COURSE                      | MODULE                                                                | LEC | SGD | WSP | SCT | JC | #      |
|-------|-----------------------------|-----------------------------------------------------------------------|-----|-----|-----|-----|----|--------|
| 1.    | MANAGEMENT OF ORAL DISEASES | JAW CYSTS                                                             | 2   | 3   | 0   | 0   | 2  | 7      |
| 2.    |                             | JAW TUMORS                                                            | 2   | 2   | 0   | 0   | 0  | 4      |
| 3.    |                             | SOFT TISSUE TUMORS<br>AND ORAL<br>MALIGNANCY                          | 3   | 1   | 0   | 0   | 0  | 4      |
| 4.    |                             | JAW RESECTION                                                         | 3   | 2   | 0   | 0   | 0  | 5      |
| 5.    |                             | PRINCIPLES OF<br>DIAGNOSIS & BIOPSY                                   | 2   | 1   | 1   | 0   | 0  | 4      |
| 6.    |                             | DENTAL<br>MANAGEMENT OF<br>RADIOTHERAPY &<br>CHEMOTHERAPY<br>PATIENTS | 2   | 0   | 0   | 0   | 2  | 4      |
| 7.    |                             | RECONSTRUCTION<br>PRINCIPLES                                          | 2   | 2   | 0   | 0   | 0  | 4      |
| 8.    |                             | SALIVARY GLAND<br>DISEASE                                             | 3   | 1   | 0   | 1   | 0  | 5      |
| 9.    |                             | TMJ DISORDERS                                                         | 3   | 0   | 0   | 1   | 0  | 4      |
| 10.   |                             | SOFT & HARD TISSUE<br>ABNORMALITIES                                   | 4   | 4   | 0   | 0   | 2  | 1<br>0 |
| 11.   |                             | DENTAL IMPLANTS                                                       | 3   | 2   | 0   | 0   | 1  | 5      |
| 12.   |                             | FACIALPAIN                                                            | 4   | 3   | 0   | 1   | 0  | 8      |
| TOTAL |                             |                                                                       | 33  | 21  | 1   | 3   | 7  | 6<br>5 |

**COURSE: MAXILLOFACIAL SURGERY**

| S.NO  | COURSE                | MODULE                                                | LEC | SGD | WSP | SCT | JC | #  |
|-------|-----------------------|-------------------------------------------------------|-----|-----|-----|-----|----|----|
| 1.    | MAXILLOFACIAL SURGERY | EMERGENCY MANAGEMENT OF TRAUMA PATIENT                | 2   | 1   | 0   | 3   | 0  | 6  |
| 2.    |                       | TRAUMATIC INJURIES OF TEETH AND SOFT TISSUE INJURIES. | 1   | 3   | 0   | 0   | 0  | 4  |
| 3.    |                       | MANAGEMENT OF MANDIBULAR FRACTURES                    | 3   | 1   | 1   | 0   | 1  | 6  |
| 4.    |                       | ZYGOMATIC COMPLEX FRACTURES                           | 2   | 1   | 0   | 1   | 0  | 4  |
| 5.    |                       | NASAL & ORBITAL FRACTURES                             | 1   | 3   | 0   | 0   | 0  | 4  |
| 6.    |                       | MID FACIAL FRACTURES                                  | 3   | 2   | 1   | 0   | 1  | 7  |
| 7.    |                       | CLEFT LIP AND PALATE                                  | 2   | 1   | 0   | 0   | 0  | 3  |
| 8.    |                       | ORTHO-GNATHIC SURGERY                                 | 1   | 1   | 0   | 0   | 1  | 3  |
| 9.    |                       | PERIAPICAL SURGERY                                    | 1   | 1   | 0   | 1   | 0  | 3  |
| TOTAL |                       |                                                       | 16  | 14  | 2   | 2   | 3  | 37 |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: BASIC PRINCIPLES OF ORAL SURGERY**  
**CODE: FJ04-ORS-1.1**

**OBJECTIVES:**

1. Introduction to History, Diagnosis and Treatment Planning
2. Discuss principles and techniques of sterilization
3. Describe various methods of incisions and flap designs
4. Discuss methods of hemostasis and suturing techniques
5. Post-operative care, nutrition and prevention of infections
6. Concepts of wound healing and repair
7. Explain Basic necessities for surgery

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                           | MIT | HRS | BCQ | OSCE |
|------|---------------------------------------------------------------------------------|-----|-----|-----|------|
| 1.   | History, Diagnosis and treatment planning                                       | LEC | 1   |     |      |
| 2.   | Principles and techniques of sterilization                                      | SGD | 1   |     |      |
| 3.   | Methods of incisions and flap designs                                           | LEC | 1   |     |      |
| 4.   | Methods of hemostasis and suturing techniques                                   | WSP | 1   |     |      |
| 5.   | Examination of Oral Cavity                                                      | SCT | 1   |     |      |
| 6.   | Suturing material, technique and types                                          | SGD | 1   |     |      |
| 7.   | Muco-periosteal flaps – classification and design                               | SGD | 1   |     |      |
| 8.   | Stages of wound healing, dead space management and healing of extraction socket | LEC | 1   |     |      |
| 9.   | Surgical significance of wound healing                                          | JC  | 1   |     |      |
|      | <b>Total</b>                                                                    |     | 09  |     |      |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: MEDICAL ASPECTS OF ORAL SURGERY**  
**CODE: FJ04-ORS-1.2**

**OBJECTIVES:**

1. Discuss Management of Medically compromised patient
2. Discuss Medication for pregnant & postpartum patients
3. Discuss situations which can exaggerate the pre-existing Medical condition
4. Discuss preventive measures before treatment

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                         | MIT | HRS | BCQ | OSCE |
|------|---------------------------------------------------------------|-----|-----|-----|------|
| 1.   | Management of Patient with Compromising Medical Condition.    | LEC | 1   |     |      |
| 2.   | Medication for pregnant & postpartum patients after treatment | SGD | 1   |     |      |
| 3.   | Drug dosage, indication and contraindication                  | SGD | 1   |     |      |
| 4.   | Medical emergency                                             | LEC | 1   |     |      |
| 5.   | Cardio pulmonary resuscitation                                | SCT | 1   |     |      |
| 6.   | Emergency in Oral Surgery Practice                            | WSP | 1   |     |      |
|      | <b>Total</b>                                                  |     | 06  |     |      |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: ANESTHESIA & SEDATION**  
**CODE: FJ04-ORS-1.3**

**OBJECTIVES**

1. Types (local, general & sedative anesthesia). Classify Anesthesia
2. Describe different type of Anesthetic solution in dentistry
3. Preoperative assessment (for local & General anesthesia)
4. Interpret investigation for GA fitness
5. Describe Mechanism of LA
6. Indication and contraindication of (LA & GA)
7. Discuss indication & contraindication of Anesthesia

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                    | MIT | HRS | BCQ | OSCE |
|------|------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1.   | Anesthesia Types, Indication and contraindication (local, general & sedative anesthesia) | LEC | 1   |     |      |
| 2.   | Different type of Anesthetic solution and technique used in dentistry                    | LEC | 1   |     |      |
| 3.   | Techniques & chair position                                                              | SCT | 1   |     |      |
| 4.   | GA preoperative assessment of Patient                                                    | SGD | 1   |     |      |
| 5.   | LA indication and contraindication on medically compromised patient                      | SGD | 1   |     |      |
|      | <b>Total</b>                                                                             |     | 05  |     |      |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: BASIC PRINCIPLES OF EXODONTIA**  
**CODE: FJ04-ORS-1.4**

**OBJECTIVES:**

1. Discuss pain & Anxiety control
2. Discuss Pre-surgical Medical Assessment
3. Discuss Clinical evaluation of teeth for removal
4. Discuss Radiographic examination of tooth for removal
5. Describe patient & surgeon preparation

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                                                 | MIT | HRS | BCQ | OSCE |
|------|-------------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| 1.   | Pain and Anxiety Control                                                                              | LEC | 1   |     |      |
| 2.   | Basic principles of Exodontia                                                                         | LEC | 1   |     |      |
| 3.   | Pre-surgical Medical Assessment (Clinical evaluation & radiographic examination of teeth for removal) | LEC | 1   |     |      |
| 4.   | Clinical evaluation of teeth for removal                                                              | SCT | 1   |     |      |
| 5.   | Radiographic examination of tooth for removal                                                         | SGD | 1   |     |      |
| 6.   | Patient & surgeons preparation                                                                        | SGD | 1   |     |      |
|      | <b>Total</b>                                                                                          |     | 06  |     |      |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: PRINCIPLES OF USE OF INSTRUMENTS**  
**CODE: FJ04-ORS-1.5**

**OBJECTIVES:**

1. Describe instruments for incising tissue, elevating muco-periosteum, retracting soft tissue
2. Describe instruments for controlling hemorrhage, grasping tissue
3. Describe instruments for removing bone, removing soft tissue from bony defects, suturing mucosa
4. Describe instruments for holding mouth open, providing suction
5. Describe instruments for transferring sterile instruments, holding towel & drapes in position, irrigation
6. Describe Dental elevators, extraction forceps
7. Discuss instrument tray system

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                       | MIT | HRS | BCQ | OSCE |
|------|-------------------------------------------------------------|-----|-----|-----|------|
| 1.   | Principles of use of instruments                            | WSP | 1   |     |      |
| 2.   | Armamentarium of instrument of basic oral surgery           | SGD | 1   |     |      |
| 3.   | Instrument handling                                         | SGD | 1   |     |      |
| 4.   | Hands on basic oral surgical instrument on models / patient | SCT | 1   |     |      |
|      | <b>Total</b>                                                |     | 04  |     |      |

**COURSE:MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: NON SURGICAL EXTRACTIONS**  
**CODE: FJ04-ORS-1.6**

**OBJECTIVES:**

1. List the Indications for removal of teeth
2. List Contraindications for the removal of teeth
3. Explain Chair position for Forceps extraction
4. Explain mechanical principles involved in tooth extractions
5. Describe procedure for closed extraction
6. Discuss specific techniques for removal of each tooth
7. Describe post extraction care of tooth socket

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                                               | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|--------------------------------------------------------------------------------------------|------------|------------|------------|-------------|
| 1           | Assessment of tooth for extraction (Indication and contra-indication for removal of tooth) | LEC        | 1          |            |             |
| 2           | Chair position for Forceps extraction                                                      | SCT        | 1          |            |             |
| 3           | mechanical principles involved in tooth extractions                                        | SGD        | 1          |            |             |
| 4           | specific techniques for removal of each tooth                                              | SCT        | 1          |            |             |
| 5           | post extraction care of tooth socket                                                       | SGD        | 1          |            |             |
|             | <b>Total</b>                                                                               |            | 06         |            |             |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: SURGICAL EXTRACTIONS**  
**CODE: FJ04-ORS-1.7**

**OBJECTIVES:**

1. Indications for surgical extraction
2. Technique for open extraction of single- rooted tooth
3. Technique for surgical removal of multi-rooted teeth
4. Removal of small root fragments and root tips
5. Policy for leaving root fragments.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                          | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|-------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Assessment of surgical extraction                     | LEC        | 1          |            |             |
| 2.          | Technique for open extraction of single- rooted tooth | SCT        | 1          |            |             |
| 3.          | Technique for surgical removal of multi-rooted teeth  | SCT        | 1          |            |             |
| 4.          | specific techniques for removal of each tooth         | SCT        | 1          |            |             |
| 5.          | post extraction care of tooth socket                  | SGD        | 1          |            |             |
| 6.          | post extraction care of tooth socket                  | JC         | 1          |            |             |
|             | <b>Total</b>                                          |            | 06         |            |             |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: IMPACTED TEETH**  
**CODE: FJ04-ORS-1.8**

**OBJECTIVES:**

1. Define Impaction
2. List indications & contraindications for removal of impacted teeth
3. Explain the Classification system of impacted teeth
4. Discuss the difficulty of removal of other impacted teeth
5. Describe surgical procedures
6. Discuss preoperative patient management
7. Describe control of postoperative bleeding
8. Explain soft tissue injuries
9. Discuss complications with the tooth being extracted
10. Describe oro-antral communications
11. Describe delayed healing and infection

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                   | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|----------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Indications & contra-indications for removal of impacted teeth | LEC        | 1          |            |             |
| 2.          | Classification system of mandibular impacted teeth             | LEC        | 1          |            |             |
| 3.          | Radiographs for third molar impactions                         | LEC        | 1          |            |             |
| 4.          | Modifications of Classification system                         | LEC        | 1          |            |             |
| 5.          | Difficulty of removal of other impacted teeth                  | SGD        | 1          |            |             |
| 6.          | Control of postoperative bleeding                              | SGD        | 1          |            |             |
| 7.          | Control of postoperative pain and discomfort                   | SGD        | 1          |            |             |
| 8.          | Oro-antral communications                                      | SGD        | 1          |            |             |
| 9.          | Delayed healing and infection                                  | JC         | 1          |            |             |
| 10.         | Post extraction care of surgical extracted tooth socket        | JC         | 1          |            |             |
|             | <b>Total</b>                                                   |            | 10         |            |             |

**COURSE: MINOR ORAL SURGERY [FJ04-ORS-1]**  
**MODULE: INFECTIONS & SPREAD OF INFECTION**  
**CODE: FJ04-ORS-1.9**

**OBJECTIVES:**

1. Explain microbiology of odontogenic infections
2. Classify spaces of infection
3. Explain Fascial space infections
4. Discuss principles of management of infection
5. Discuss natural history of progression of odontogenic infections
6. Explain principles of prevention of infection
7. Explain principles of prophylaxis of wound infection
8. Explain principles of prophylaxis against metastatic infection
9. Explain osteomyelitis
10. Explain actinomycosis
11. Explain candidiasis

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                     | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|--------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Classification of fascial space                  | LEC        | 1          |            |             |
| 2.          | Boundaries and landmark of fascial space         | LEC        | 1          |            |             |
| 3.          | Routes of spread of fascial infection            | LEC        | 1          |            |             |
| 4.          | Principles of management of infection            | LEC        | 1          |            |             |
| 5.          | Assessment of fascial space infection            | LEC        | 1          |            |             |
| 6.          | Management of fascial space infection            | LEC        | 1          |            |             |
| 7.          | Post operative care of fascial space infection   | LEC        | 1          |            |             |
| 8.          | Explain osteomyelitis, actinomycosis, candidosis | LEC        | 1          |            |             |
| 9.          | Assessment of fascial space infection            | SGD        | 1          |            |             |
| 10.         | Management of fascial space infection            | SGD        | 1          |            |             |
| 11.         | Post operative care of fascial space infection   | SGD        | 1          |            |             |
|             | <b>Total</b>                                     |            | 11         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]****MODULE: JAW CYSTS****CODE: FJ04-ORS-2.1****OBJECTIVES**

1. Discuss Basic surgical goals
2. Describe surgical management of cysts and cyst like lesions of the jaws

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                                                  | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|-----------------------------------------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Classification of cyst                                                                        | LEC        | 1          |            |             |
| 2.          | Diagnosis and management of cyst                                                              | LEC        | 1          |            |             |
| 3.          | Eradication of pathological condition                                                         | SGD        | 1          |            |             |
| 4.          | Enucleation and marsupialization                                                              | SGD        | 1          |            |             |
| 5.          | Enucleation, marsupialization, enucleation after marsupialization, enucleation with curettage | SGD        | 1          |            |             |
| 6.          | Odontogenic cyst                                                                              | JC         | 1          |            |             |
| 7.          | Non odontogenic cyst                                                                          | JC         | 1          |            |             |
|             | <b>Total</b>                                                                                  |            | 07         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: JAW TUMOUR**  
**CODE: FJ04-ORS-2.2**

**OBJECTIVES:**

1. Identify Odontogenic tumors
2. Identify Non-odontogenic tumors
3. Discuss Principles of surgical management of jaw tumors

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                             | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|----------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Classification of odontogenic and non-odontogenic tumors | LEC        | 1          |            |             |
| 2.          | Diagnosis and management of jaw tumor                    | LEC        | 1          |            |             |
| 3.          | Diagnosis and management of jaw tumor                    | SGD        | 1          |            |             |
| 4.          | Post-operative follow up                                 | SGD        | 1          |            |             |
|             | <b>Total</b>                                             |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: SOFT TISSUE TUMORS AND ORAL MALIGNANCY**  
**CODE: FJ04-ORS-2.3**

**OBJECTIVES:**

4. Discuss management of soft tissue tumors
5. Describe Management of oral precancerous lesions and conditions
6. Discuss Principles of management of oral malignancies

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                               | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Classification of oral premalignant lesions and conditions | LEC        | 1          |            |             |
| 2.          | Diagnostic triage and staging of oral malignancies         | LEC        | 1          |            |             |
| 3.          | Diagnosis and management of benign soft tissue tumors      | LEC        | 1          |            |             |
| 4.          | Post-operative follow up                                   | SGD        | 1          |            |             |
|             | <b>Total</b>                                               |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: JAW RESECTION**  
**CODE: FJ04-ORS-2.4**

**OBJECTIVES:**

1. Name type of resections & their indications in the jaw tumor
2. Explain Reconstruction of jaws after removal of oral tumors

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                                                                                      | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Marginal and partial resection                                                                                                    | LEC        | 1          |            |             |
| 2.          | Indication of resections according to pathology and Ridge augmentation includes bone grafts, synthetic bone grafts or combination | LEC        | 1          |            |             |
| 3.          | Type of resections & their indications in the jaw tumor & Reconstruction of jaws after removal of oral tumors                     | LEC        | 1          |            |             |
| 4.          | Bone grafts, autogenous and alloplastic bone grafts                                                                               | SGD        | 1          |            |             |
| 5.          | Type of resections & their indications in the jaw tumor & Reconstruction of jaws after removal of oral tumors                     | SGD        | 1          |            |             |
|             | <b>Total</b>                                                                                                                      |            | 05         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE:PRINCIPLES OF DIAGNOSIS & BIOPSY**  
**COURSE CODE: FJ04-ORS-2.5**

**OBJECTIVES:**

1. Discuss examination and diagnostic methods
2. Discuss Principles of biopsy
3. Describe soft tissue biopsy technique and surgical principles
4. Describe intraosseous or hard tissue biopsy technique and surgical principles
5. Discuss referral for biopsies

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                                         | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|--------------------------------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Biopsies its techniques and principles                                               | LEC        | 1          |            |             |
| 2.          | Differential Diagnosis - history,clinical examination,radiographs,lab investigations | LEC        | 1          |            |             |
| 3.          | Incisional, excisional,aspiration                                                    | SGD        | 1          |            |             |
| 4.          | Radiographic Interpretations                                                         | WSP        | 1          |            |             |
|             | <b>Total</b>                                                                         |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: DENTAL MANAGEMENT OF RADIOTHERAPY & CHEMOTHERAPY PATIENTS**  
**CODE: FJ04-ORS-2.6**

**OBJECTIVES:**

1. Describe dental management of patients undergoing radiotherapy to head and neck.
2. Describe dental management of patients on systemic chemotherapy for malignant disease.

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                                  | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|-------------------------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Dental management of patients undergoing radiotherapy to head and neck        | LEC        | 1          |            |             |
| 2.          | Dental management of patients on systemic chemotherapy for malignant disease. | LEC        | 1          |            |             |
| 3.          | Dental management of patients undergoing radiotherapy to head and neck        | JC         | 1          |            |             |
| 4.          | Dental management of patients on systemic chemotherapy for malignant disease. | JC         | 1          |            |             |
|             | <b>Total</b>                                                                  |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: RECONSTRUCTION PRINCIPLES**  
**CODE: FJ04-ORS-2.7**

**OBJECTIVES:**

1. Classify the Mucosal Flaps use for reconstruction
2. Describe basic reconstructive principles

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                     | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|----------------------------------|------------|------------|------------|-------------|
| 1.          | Classifications of mucosal flaps | LEC        | 1          |            |             |
| 2.          | Reconstructive principles        | LEC        | 1          |            |             |
| 3.          | Reconstructive principles        | SGD        | 1          |            |             |
| 4.          | Hands on workshop on Goat head.  | SCT        | 1          |            |             |
|             | <b>Total</b>                     |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: SALIVARY GLAND DISEASE**  
**CODE: FJ04-ORS-2.8**

**OBJECTIVES:**

1. Discuss Embryology, Anatomy and Physiology
2. Discuss Diagnostic Modalities
3. Describe obstructive salivary gland disease
4. Discuss Mucous retention and extravasation phenomenon
5. Describe salivary gland infections, Necrotizing sialometaplasia
6. Describe sjogren's syndrome
7. Discuss traumatic salivary gland injuries
8. Describe salivary gland tumors

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                  | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|---------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Clinical features, investigation of salivary gland disorders. | LEC        | 2          |            |             |
| 2.          | Management of salivary gland tumors                           | LEC        | 1          |            |             |
| 3.          | Sjogren's syndrome                                            | SGD        | 1          |            |             |
| 4.          | Salivary gland infections, Necrotizing sialometaplasia        | SCT        | 1          |            |             |
|             | <b>Total</b>                                                  |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE:TMJ DISORDERS.**  
**CODE: FJ04-ORS-2.9**

**OBJECTIVES:**

1. Discuss Evaluation
2. List classification of temporomandibular disorders
3. Identify sign & symptoms and prescribe relevant investigation
4. Discuss different treatment options
5. Explain permanent occlusion modification
6. Explain temporomandibular joint surgery
7. Advised follow up

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                              | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|---------------------------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Assessment of TMJ, muscles of mastication, investigations and radiographs | LEC        | 1          |            |             |
| 2.          | Management of TMJ Disorders                                               | LEC        | 1          |            |             |
| 3.          | Management of myofacial pain and TMPDS                                    | LEC        | 1          |            |             |
| 4.          | Muscles of mastication examination                                        | SCT        | 1          |            |             |
|             | <b>Total</b>                                                              |            | 04         |            |             |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE:SOFT & HARD TISSUE ABNORMALITIES**  
**CODE: FJ04-ORS-2.10**

**OBJECTIVES:**

1. Explain objectives of pre-prosthetic surgery
2. Discuss principles of patient evaluation and treatment planning
3. Describe re-contouring the alveolar ridges
4. Describe tori removal
5. Describe soft tissue abnormalities
6. Define immediate dentures
7. Describe over denture surgery
8. Explain mandibular augmentation
9. Explain maxillary augmentation
10. Describe soft tissue surgery for ridge extension of the mandible
11. Describe soft tissue surgery for maxillary ridge extension
12. Explain correction of abnormal ridge relationships

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                   | MIT | HRS | BCQ | OSCE |
|------|---------------------------------------------------------|-----|-----|-----|------|
| 1.   | Principles of patient evaluation and treatment planning | LEC | 1   |     |      |
| 2.   | Pre-prosthetic surgery                                  | LEC | 1   |     |      |
| 3.   | Correction of abnormal ridge relationships              | LEC | 1   |     |      |
| 4.   | Soft tissue abnormalities                               | LEC | 1   |     |      |
| 5.   | Re-contouring the alveolar ridges                       | SGD | 1   |     |      |
| 6.   | Tori removal                                            | SGD | 1   |     |      |
| 7.   | Maxillary augmentation                                  | SGD | 1   |     |      |
| 8.   | Mandibular augmentation                                 | SGD | 1   |     |      |
| 9.   | Immediate dentures                                      | JC  | 1   |     |      |
| 10.  | Over denture surgery                                    | JC  | 1   |     |      |
|      | <b>Total</b>                                            |     | 10  |     |      |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**COURSE NAME: DENTAL IMPLANTS**  
**CODE: FJ04-ORS-2.11**

**OBJECTIVES:**

1. Discuss Biologic considerations for osseo-integration
2. List clinical implant components
3. Discuss implant prosthetic options
4. Discuss preoperative medical evaluation of implant patient
5. Describe surgical phase: treatment planning
6. Explain basic surgical techniques
7. Discuss complications
8. Describe advanced surgical techniques
9. Discuss special situations

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                              | MIT | HRS | BCQ | OSCE |
|------|----------------------------------------------------|-----|-----|-----|------|
| 1.   | Dental Implants                                    | LEC | 1   |     |      |
| 2.   | Preoperative medical evaluation of implant patient | LEC | 1   |     |      |
| 3.   | Basic surgical techniques                          | LEC | 1   |     |      |
| 4.   | Implant prosthetic options                         | SGD | 1   |     |      |
| 5.   | Complications                                      | SGD | 1   |     |      |
| 6.   | Dental implant osseo-integration                   | JC  | 1   |     |      |
|      | <b>Total</b>                                       |     | 06  |     |      |

**COURSE: MANAGEMENT OF ORAL DISEASES [FJ04-ORS-2]**  
**MODULE: FACIAL PAIN**  
**CODE: FJ04-ORS-2.12**

**OBJECTIVES:**

1. Discuss Basics of pain neurophysiology
2. List classification of orofacial pains
3. Discuss neuropathic facial pains
4. Describe Chronic headache
5. Discuss other Chronic head pains of dental interest
6. Discuss Evaluation of the orofacial pain patients

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                   | MIT | HRS | BCQ | OSCE |
|------|---------------------------------------------------------|-----|-----|-----|------|
| 1.   | Classification of orofacial pain                        | LEC | 1   |     |      |
| 2.   | Pain neurophysiology                                    | SGD | 1   |     |      |
| 3.   | Neuropathic facial pain                                 | LEC | 1   |     |      |
| 4.   | Facial and trigeminal nerve anatomy and pathophysiology | LEC | 1   |     |      |
| 5.   | Management of facial pain                               | LEC | 1   |     |      |
| 6.   | Chronic headache of dental interest                     | SGD | 1   |     |      |
| 7.   | Neuropathic facial pain                                 | SGD | 1   |     |      |
| 8.   | Orofacial pain                                          | SCT | 1   |     |      |
|      | <b>Total</b>                                            |     | 08  |     |      |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: EMERGENCY MANAGEMENT OF TRAUMA PATIENT**  
**CODE: FJ04-ORS-3.1**

**OBJECTIVES:**

1. Discuss evaluation of patients with facial trauma
2. Describe & Demonstrate BLS &ATLS
3. Knows ABCDE

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                 | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|------------------------------|------------|------------|------------|-------------|
| 1.          | Emergency management         | LEC        | 1          |            |             |
| 2.          | Trauma life support          | LEC        | 1          |            |             |
| 3.          | Emergency kit and crash cart | SCT        | 1          |            |             |
| 4.          | Basic life support           | SGD        | 1          |            |             |
| 5.          | Demonstrate BLS &ATLS        | SCT        | 1          |            |             |
|             | <b>Total</b>                 |            | 05         |            |             |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**

**MODULE: TRAUMATIC INJURIES OF TEETH AND SOFT TISSUE INJURIES.**

**CODE: FJ04-ORS-3.2**

**OBJECTIVES:**

1. Describe soft tissue injuries
2. Describe dento-alveolar injuries

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                                        | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|---------------------------------------------------------------------|------------|------------|------------|-------------|
| 1           | Traumatic injuries of teeth and Management of soft tissue injuries. | LEC        | 1          |            |             |
| 2           | Evaluation & management of soft tissue injuries                     | SGD        | 1          |            |             |
| 3           | Evaluation & management of dento-alveolar injuries                  | SGD        | 1          |            |             |
| 4           | Soft tissue and dento-alveolar injuries                             | SGD        | 1          |            |             |
|             | <b>Total</b>                                                        |            | 04         |            |             |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: MANAGEMENT OF MANDIBULAR FRACTURES**  
**CODE: FJ-04-ORS-3.3**

**OBJECTIVES:**

1. Discuss etiology, classification, clinical features & management of mandibular fractures
2. Identify complications of mandibular fractures

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                                    | MIT | HRS | BCQ | OSCE |
|------|--------------------------------------------------------------------------|-----|-----|-----|------|
| 1.   | Mandibular applied anatomy                                               | LEC | 1   |     |      |
| 2.   | Classification of mandibular fractures, clinical evaluation, radiographs | LEC | 1   |     |      |
| 3.   | Management & complications                                               | LEC | 1   |     |      |
| 4.   | Classification of mandibular fractures, clinical evaluation, radiographs | SGD | 1   |     |      |
| 5.   | Management & complications                                               | WSP | 1   |     |      |
| 6.   | Classification of mandibular fractures                                   | JC  | 1   |     |      |
|      | <b>Total</b>                                                             |     | 06  |     |      |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: ZYGOMATIC COMPLEX FRACTURES**  
**CODE: FJ-04-ORS-3.4**

**OBJECTIVES:**

1. Discuss causes, classification, clinical features & management of ZMC fractures
2. Prescribe appropriate radiographs

3. Identify complication of ZMC fractures

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| S:NO | TOPIC                                                           | MIT | HRS | BCQ | OSCE |
|------|-----------------------------------------------------------------|-----|-----|-----|------|
| 1.   | Zygomatic complex applied anatomy                               | LEC | 1   |     |      |
| 2.   | Classification, clinical features & management of ZMC fractures | LEC | 1   |     |      |
| 3.   | Radiographic interpretations                                    | SCT | 1   |     |      |
| 4.   | Complication of ZMC fractures                                   | SGD | 1   |     |      |
|      | <b>Total</b>                                                    |     | 04  |     |      |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: NASAL & ORBITAL FRACTURES**  
**CODE: FJ-04-ORS-3.5**

**OBJECTIVES:**

1. Describe anatomy of orbit
2. Discuss causes, classification, clinical features & management of orbital & nasal fractures
3. Identify complication of orbital & nasal fractures

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|---------------------------------------------|------------|------------|------------|-------------|
| 1.          | Nasal & Orbital anatomy                     | SGD        | 1          |            |             |
| 2.          | Classification of Nasal & Orbital fractures | SGD        | 1          |            |             |
| 3.          | Management of Nasal & Orbital fractures     | LEC        | 1          |            |             |
| 4.          | Complications of Nasal & Orbital fractures  | SGD        | 1          |            |             |
|             | <b>Total</b>                                |            | 04         |            |             |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: MID FACIAL FRACTURE**  
**CODE: FJ-04-ORS-3.6**

**OBJECTIVES:**

1. Discuss causes, classification, sign & symptoms & Management of midface fractures
2. Identify complication of midface fracture

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                          | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|-------------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Mid facial applied anatomy                            | LEC        | 1          |            |             |
| 2.          | Classification, sign & symptoms of mid-face fractures | LEC        | 1          |            |             |
| 3.          | Management of mid-face fractures                      | LEC        | 1          |            |             |
| 4.          | Complications of mid-face fractures                   | SGD        | 1          |            |             |
| 5.          | Classification, sign & symptoms of mid-face fractures | SGD        | 1          |            |             |
| 6.          | Management of mid-face fractures                      | WSP        | 1          |            |             |
| 7.          | Management of midface fractures                       | JC         | 1          |            |             |
|             | <b>Total</b>                                          |            | 07         |            |             |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: CLEFT LIP AND PALATE**  
**CODE: FJ04-ORS-3.7**

**OBJECTIVES:**

1. Describe embryology of mid face
2. Discuss causative factors
3. Discuss problems of the cleft afflicted individuals
4. Explain treatment of cleft lip and palate
5. Describe dental needs of cleft afflicted individuals

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|---------------------------------------------|------------|------------|------------|-------------|
| 1.          | Clinically oriented embryology of mid face  | LEC        | 1          |            |             |
| 2.          | Classification of cleftlip and palate       | SGD        | 1          |            |             |
| 3.          | Management of cleft lip and palate patients | LEC        | 1          |            |             |
|             | <b>Total</b>                                |            | 03         |            |             |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: ORTHOGNATHIC SURGERY**  
**CODE: FJ04-ORS-3.8**

**OBJECTIVES:**

1. Classify orthognathic surgical procedures
2. Evaluate patient for orthognathic surgery
3. Name the procedure to correct jaw abnormalities

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                    | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|-------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Skeletal classification of malocclusion         | SGD        | 1          |            |             |
| 2.          | Clinical examination and investigations         | JC         | 1          |            |             |
| 3.          | Skeletal discrepancies and orthognathic surgery | LEC        | 1          |            |             |
|             | <b>Total</b>                                    |            | 03         |            |             |

**COURSE: MAXILLOFACIAL SURGERY [FJ04-ORS-3]**  
**MODULE: PERIAPICAL SURGERY**  
**CODE: FJ04-ORS-3.9**

**OBJECTIVES:**

1. Describe drainage of an abscess
2. Define Periapical surgery
3. Define Corrective surgery
4. Describe Healing
5. Discuss recall, adjuncts and when to consider referral

**MODE OF INFORMATION TRANSFER (MIT) & ASSESSMENT:**

| <b>S:NO</b> | <b>TOPIC</b>                                     | <b>MIT</b> | <b>HRS</b> | <b>BCQ</b> | <b>OSCE</b> |
|-------------|--------------------------------------------------|------------|------------|------------|-------------|
| 1.          | Surgical endodontics                             | LEC        | 1          |            |             |
| 2.          | Indications and technique (surgical endodontics) | SGD        | 1          |            |             |
| 3.          | Clinical features of periapical abscess          | SCT        | 1          |            |             |
|             | <b>Total</b>                                     |            | 03         |            |             |

| <b>Course Code</b>   | <b>MODULE</b>                                             | <b>Total</b> |
|----------------------|-----------------------------------------------------------|--------------|
| <b>FJ04-ORS-1.1</b>  | BASIC PRINCIPLES OF ORAL SURGERY                          | 9            |
| <b>FJ04-ORS-1.2</b>  | MEDICAL ASPECTS OF ORAL SURGERY                           | 6            |
| <b>FJ04-ORS-1.3</b>  | ANESTHESIA AND SEDATION                                   | 5            |
| <b>FJ04-ORS-1.4</b>  | BASIC PRINCIPLES OF EXODONTIA                             | 6            |
| <b>FJ04-ORS-1.5</b>  | PRINCIPLES OF USE OF INSTRUMENTS                          | 4            |
| <b>FJ04-ORS-1.6</b>  | NON-SURGICAL EXTRACTIONS                                  | 5            |
| <b>FJ04-ORS-1.7</b>  | SURGICAL EXTRACTIONS                                      | 6            |
| <b>FJ04-ORS-1.8</b>  | IMPACTED TEETH                                            | 10           |
| <b>FJ04-ORS-1.9</b>  | INFECTIONS AND SPREAD OF INFECTION                        | 11           |
| <b>FJ-04-ORS-2.1</b> | JAW CYSTS                                                 | 7            |
| <b>FJ04-ORS-2.2</b>  | JAW TUMORS                                                | 4            |
| <b>FJ04-ORS-2.3</b>  | SOFT TISSUE TUMORS AND ORAL MALIGNANCY                    | 4            |
| <b>FJ04-ORS-2.4</b>  | JAW RESECTION                                             | 5            |
| <b>FJ04-ORS-2.5</b>  | PRINCIPLES OF DIAGNOSIS & BIOPSY                          | 4            |
| <b>FJ04-ORS-2.5</b>  | DENTAL MANAGEMENT OF RADIOTHERAPY & CHEMOTHERAPY PATIENTS | 4            |
| <b>FJ04-ORS-2.6</b>  | RECONSTRUCTION PRINCIPLES                                 | 4            |
| <b>FJ04-ORS-2.7</b>  | SALIVARY GLAND DISEASE                                    | 5            |
| <b>FJ04-ORS-2.8</b>  | TMJ DISORDERS                                             | 4            |
| <b>FJ04-ORS-2.9</b>  | SOFT & HARD TISSUE ABNORMALITIES                          | 10           |
| <b>FJ04-ORS-2.10</b> | DENTAL IMPLANTS                                           | 5            |
| <b>FJ04-ORS-2.11</b> | FACIALPAIN                                                |              |
| <b>FJ04-ORS-3.1</b>  | EMERGENCY MANAGEMENT OF TRAUMA PATIENT                    | 6            |
| <b>FJ04-ORS-3.2</b>  | TRAUMATIC INJURIES OF TEETH AND SOFT TISSUE INJURIES.     | 4            |
| <b>FJ04-ORS-3.3</b>  | MANAGEMENT OF MANDIBULAR FRACTURES                        | 6            |
| <b>FJ04-ORS-3.4</b>  | ZYGOMATIC COMPLEX FRACTURES                               | 4            |
| <b>FJ04-ORS-3.5</b>  | NASAL & ORBITAL FRACTURES                                 | 4            |
| <b>FJ04-ORS-3.6</b>  | MID FACIAL FRACTURES                                      | 7            |
| <b>FJ04-ORS-3.7</b>  | CLEFT LIP AND PALATE                                      | 3            |
| <b>FJ04-ORS-3.8</b>  | ORTHO-GNATHIC SURGERY                                     | 3            |
| <b>FJ04-ORS-3.9</b>  | PERIAPICAL SURGERY                                        | 3            |

|  |                                                                                             |                  |
|--|---------------------------------------------------------------------------------------------|------------------|
|  | <b>Content Taught in lectures/ SGD, WSP, SCT, JC in Clinical Rotations</b>                  | <b>164 hours</b> |
|  | Clinical Quota on Patients<br>Observed/ Assisted/ Under Supervision Oral Surgery Procedures | 90-100<br>Hours  |