BAHRIA UNIVERSITY
DENTAL COLLEGE
BUHSC-(K)

Second Year BDS
Batch 9TH : 2020-2024
STUDY GUIDE

FROM THE DESK OF PRINCIPAL

Prof Wahab Kadri
BDS, FCPS

Consultant Oral and Maxillofacial Surgeon
Principal,
BUDC

Bahria University Dental College (BUDC) since its inception has evolved as an exceptionally outstanding facility to provide quality education and dental treatment to the community.

I must appreciate the hard work of our well experienced and dedicated faculty members and staff in maintaining high standards of medical & dental education and the efforts they have put in Bahria University Health Sciences (BUHS) to be a distinguished center of excellence.

By the grace of Almighty, we are inducting the tenth batch of BDS this year. Since the establishment of dental college, we have been working constantly to upgrade services and facilities at BUHS campus and the attached PNS Shifa hospital for our students and patients.

We would like our graduates to excel as confident, responsible, and self-learning dental and medical practitioners.

All the best for your stay at BUDC and future endeavors.

MESSAGE FROM THE DESK OF VICE PRINCIPAL

Prof Dr. Kulsoom Fatima Rizvi
BSc, BDS, MSc. (London) DDPHRCS (Eng.)
Vice Principal
BUDC

Dear students,

The evolutionary fields of Medicine and Dentistry call for continuous learning and persistence on behalf of the clinician. My goal as Vice Principal is to provide the leadership that will facilitate Dental College to provide the best possible academic guidance to meet the needs of students and patients to the best of our ability. Through a close partnership with faculty members and parents, I am confident we can make our college a place where our students can continue to grow academically and socially for life in the 21st Century.

We, at Bahria University Dental College, are committed to transform our students into dental surgeons who are life-long learners, who can lead fearlessly and selflessly, and are compassionate and impregnated with a deep sense of commitment towards humanity.

We meet international standards of professional education by installing the system of integrated curriculum, interdisciplinary and thematic teaching of basic and clinical sciences. We advocate interactive sessions to improve comprehension of students as well as training them with skills of communication and self-expression.

We provide our students with a stimulating environment for undertaking research projects in their undergraduate years to build a strong basis for their future career, professional growth and stand unmatched with students of other colleges, both local and international.

With a state-of-the-art campus, experienced faculty, an up-to-date digital library, transport and hostel facilities, I assure that your decision to study at BUDC will surely be a wise one, your experience here will be profoundly enriching and you will become a valuable asset to the nation.

ABBREVIATIONS

ASSIG/AS	**Assignment**
BCQS	**Best Choice Questions**
CBL	**Case Based Learning**
CDC	**Curriculum Development Committee**
CME	**Continuous Medical Education**
CP	**Class Presentation**
CQ	**Class Quiz**
CR/CW	**Clinical Rotation/Clinical Work in OPD**
CS	**Clinical Session**
DOPS	**Direct Observational Procedural Skills**
HEC	**Higher Education Commission**
HO	**House Officers**
HOD	**Head of the Department**
IL	**Interactive Lecture**
MIT	**Modes of Information Transfer**
MOD	**Modular**
Mini-CEX	**Mini Clinical Evaluation Exercise**
OMFS	**Oral And Maxillofacial Surgery**
OPD	**Outpatient Department**
OSCE	**Objective Structured Clinical Evaluation**
OSPE	**Objective Structured Practical Evaluation**
PBL	**Problem Based Learning**
PMC	**Pakistan Medical Commission**
PPT	**Power Point Presentation**
PW	**Practical work**
QEC	**Quality Enhancement Cell**
SC	**Short case**
SEQS	**Short Essay Questions**
SGD/S	**Small Group Discussion/Session**
SGIS	**Small Group Interactive Session**
Skill Lab	**Phantom Lab**
SS	**Self -Study**
Viva	**Viva**
VD	**Visual Display**

BAHRIA UNIVERITY DENTAL COLLEGE

CONTENTS

VISION

To become a knowledge and creativity driven international university that contributes towards development of society.

MISSION STATEMENT

To produce competent and skilled dental professionals and researchers by ensuring excellence in dental education, applied research and practices in a collegiate environment supported through national and international linkages, to exhibit highest principles of professional humanism towards community and society.

INTRODUCTION

When a dental student enters dental college, a new era of academic life begins. This study guide has been designed to help students sail smoothly during their transitional phase. The very first week is spent in familiarizing the students with the environment of Bahria University Dental College.

- **Objectives of Study Guide**

  The purpose of this study guide is to:

- Inform students what they are expected to learn during their study period.
- Guide students on how the student-learning program has been organized, and how it would be implemented.
- Help students organize and manage their studies throughout the year.
- Inform students about the code of conduct at Bahria University Dental College
- Inform on organization and management of the team at BUDC. This will help you contact the right individual in case you have any difficulty.
- Describe the course content which will be taught and what the students are expected to learn.
- Impart the information on learning methods that you will experience during the course. The methods include tutorials, lectures, practical skills, experiments, dissection, field visits and research. These learning methods should help you to achieve the course objectives.
- Guides you about the available learning resources for the terms. These include books, computer-assisted learning programs, videos, and other aids
- Makes you aware about the contribution of internal evaluation and term examinations, on student's overall performance.
- Passes the information on the methods of assessment.
- Inform regarding the examination policy, rules and regulations.

- **Curriculum:**

You will be taught an integrated/hybrid modular curriculum followed by annual professional examination in every year of BDS program.

Term Schedule:

Academic calendar is given at the end of the document.

Course Objectives:

The learning objectives in terms of what students are expected to achieve on completion of each lecture (Module), including learning methods and assessment strategies, have been mentioned in this document

- **Mode of Information Transfer**

The following teaching / learning methods / strategies are used to promote better understanding:

- Lectures
- Guest Lectures
- Case based learning (CBL)
- Problem Based Learning
- Team Based Learning
- Flipped Class Room
- Tutorials
- Assignments
- Practical's/Clinical Teaching
- Mini-CEX/DOPS
- Research projects
- Library sessions

- **Self-Directed Learning:**

Self-directed learning is a learning model adopted by students from a more teacher-directed learning to a more student-centered pedagogy. Self-directed learning is a process in which individuals take the initiative, with or without the help of others, in identifying their learning needs, formulating learning goals, identifying human and material resources for learning, choosing, and implementing appropriate learning strategies, and evaluating their learning experiences.

P.S: Please refer to Students Handbook 4-November 2021 for all applicable policies and is available on BU website

STUDENT'S CODE OF CONDUCT

Every student shall observe the following code of conduct in the University premises, in the University administered hostels (on and off-campus) and places of other activities being held under the auspices of the University:

- Loyalty to Pakistan and refraining from doing anything which is repugnant to its honor and prestige in any way.
- Respect for convictions and traditions of others in matters of religion, conscience and customs while observing own religious duties/customs.
- Truthfulness and honesty in dealing with other people.
- Respect for elders and politeness to all, especially to women, children, elders, the weak and the helpless.
- Special respect for teachers and others in authority in the CUs and BU.
- Cleanliness of body, mind, speech and habits.
- Helpfulness to fellow beings.
- Devotion to studies and prescribed co-curricular activities.
- Observance of thrift and protection of public property.
- Observance of the rules and regulations of the CU in force from time to time.

Prohibited Acts & Misconduct/ill-Discipline

The following acts shall be unacceptable, and their commission shall be construed as misconduct or ill-discipline:

- Breach of the Code of Conduct.
- Smoking in the areas prohibited by the University.
- Consumption or possession of alcoholic drinks or other intoxicating drugs within the CU/ vicinity or while attending off-site instructions, sports, cultural tours or survey camps.
- Organizing or taking part in any function inside the campus, or organizing any club or society of students, except were permitted and in accordance with the prescribed rules and regulations.
- Collecting donations or receiving funds or pecuniary assistance for or on behalf of the CU except with the written permission of the Head of the CU or any other person authorized in this behalf.

- Staging, inciting or participating in or abetting any walk-out, strike or other form of agitation against BU, its CUs or students, teachers, officers or authorities; inciting others to violence; disruption of the peaceful atmosphere in any way; making inflammatory speeches or gestures which may cause resentment; issuing of pamphlets or cartoons which cast aspersions on the students, teachers, staff or University authorities/bodies; doing anything in a way likely to promote rift and hatred amongst the students; issuing statements in the press; making false accusations against or lowering the prestige of BU or its students, teachers, administrators, staff or bodies.
- Disobeys the lawful orders of a teacher or other person in authority.
- Habitually neglects work or absents from the classroom without valid reason.
- Willfully damages public property or the property of fellow students or any teacher or employees of BU and its CUs.
- Does not pay the fees, fines, or other dues payable under the laid down rules and regulations; uses indecent language; wears immodest dress; makes indecent remarks; gestures; behaves in a disorderly manner; commits any criminal, immoral or dishonorable act (whether committed within the CU or outside) or any act which is prejudicial to the interests of BU and its CUs; and/or
- Commits an act of sexual harassment, as defined in the HEC's document 'Policy Guideline against Sexual Harassment in Institutions of Higher Learning'.

Action against Misconduct

Every member of the faculty shall have the power to check any disorder or improper conduct, or any breach of the rules, by students in any part of the campus or outside when the visit is sponsored or organized by it. Misconduct in a classroom when a student is under the charge of a teacher shall not be allowed and a punitive action such as a fine, removal from the classroom or a punishment of greater magnitude may be imposed as decided by the authority so empowered. The Vice Principal can be approached for queries on educational matters, any breach of discipline, and referrals for electives, and advice about leave of absence or leave for medical reasons. All faculty members are also responsible for maintaining all aspects of discipline. Breaches of the university's code of conduct are routinely referred to the committee and disciplinary action is taken as it deems appropriate.

The administration manages the code of conduct, discipline, dress code and educational performance. There is a chairperson designated for dealing with Student Affairs.

1. Dress code:

Male students:

1. Casual Trousers
2. Jeans (Plain blue) without an image, graphics, and write ups
3. Casual Shirts (Half/ Full sleeves)
4. T Shirts without any messages, images, graphics, and write ups
5. Casual shoes or Joggers with socks
6. Shalwar Kameez with shoes (only on Friday)
7. Suit/ Combination
8. Coat/ Pullovers/ Sweaters/ Jackets in winter

Female students:

1. Shalwar Qameez
2. Hijab, Abaya, Chaddar etc
3. Full length Jeans with long shirt/ kurta (knee length)
4. Light jewelry and light makeup
5. Shoes, Sandals and Joggers
6. Dupatta/ Scarf is compulsory with all dresses

NOTE: BUDC students are expected to wear white coat during classes, hospital rotations and other wise.

2. Student Card:

Students shall be issued ID Cards. The students shall be required to wear their ID Cards in the campus and show them to the authorized persons on demand.

Loss of ID Card:

In case ID Card is lost, it should be immediately reported to the Office of the Dy Director (Academics) who will make arrangements for re-issue of a new card by the University after payment of fine.

3. Personal behavior.

The University expects that all students should sustain professional manner when interacting with colleagues and others. The University recognizes that personalities, characters,

and management styles may differ but, notwithstanding these differences, as a minimum standard, all are expected to:

- Work co-operatively with each other to achieve objectives and establish good working relationships.
- All should behave and speak professionally, respectfully, and courteously at all times.
- Tidiness and cleanliness must be always adhered to within the BUDC premises which will help us maintain a safe, clean, and professional learning environment.
- Use the college's property, facilities, supplies, and other resources in the most effective and efficient manner.
- Unacceptable behavior such as aggressive or abusive behavior, shouting or personal insults or spreading rumors or gossip, or insulting someone is to be avoided at all costs. All these matters, if experienced, should be reported to the vice principal or your mentor or a senior faculty member.

4. **Punctuality**:

Students are expected to arrive in class well in time. All cell phones, smartphones, and other electronic devices (e.g., pagers, iPods) must be turned off and hidden from view during class time. Talking and other disruptive behaviors are not permitted while classes are in session. If the students miss a class, they are themselves responsible for the missed part of the course. It is the student's responsibility to contact a classmate or teacher to determine and cover what was missed.

At BUDC classes start immediately after holidays. There is no lag period after leave. There will be no relaxation for students who are absent. **Please inform your parents of this and make your travel arrangements accordingly**. Avoid taking leave for personal reasons like weddings during the academic year.

5. **Conduct in hospital:**

While working in hospital and when dealing with patients, treat those whom you serve, with whom you work, and the public with same degree of respect you would wish them to show you.

Treat patients and colleagues with kindness, gentleness, and dignity. Respect the privacy and modesty of patients. Do not share the medical or personal details of a patient with anyone except those health care professionals who are integrals to the well-being of the patient or within the context of an educational endeavor. Lastly students are required to strictly follow the college dress code during and outside the college hours inside the campus & at hospital.

6. Conduct in library, Cafeteria, and Common rooms:

Use of Library is to help support learning and promote academic success. Through the Library, the college provides students with access to computers, books, periodicals, study space, and other academic help, comfortable seating, along with formal and informal learning spaces. Students are expected to follow college rules, guidelines, and honor code of conduct in order to maintain their good standing and to continue receiving library privileges.

Use the cafeteria and common rooms with care, courtesy, and respect for others. Place garbage and recyclables in the appropriate containers. This behavior will maintain a clean and enjoyable environment for all.

COLLEGE DISCIPLINARY COMMITTEE

The Committee deals with the maintenance of discipline on-campus. All cases of breach of discipline will be brought before this committee. The ruling of the committee cannot be challenged. The student will be dealt accordingly.

Students are to avoid the following: -

a) Unauthorized use of University's name or logo which is property of university.
b) Harassment, sexual or otherwise, or intimidation of any member of university.
c) Coming late for classes. The student may be considered absent and marked accordingly.
d) Improper/inappropriate dress
e) Loud and aggressive behavior in Cafeteria or Common rooms or within the premises of BUHS or PNS Shifa.
f) Non clearance of bills/dues. Non-clearance of dues may prevent student from appearing in the professional examination. The student may also be refused permission to attend classes.

Smoking

Smoking is strictly prohibited in campus.

In case of non-compliance, the following disciplinary actions will be undertaken:

1. **Written warning on 1st occasion**
2. **Fine of Rs. 5000/- on second occasion**
3. **Barring attendance of classes on 3rd occasion.**

POLICY ON DISCIPLINARY ACTION AGAINST USE OF UNFAIR MEANS

Zero tolerance for cheating / use of unfair means is to be maintained during Examinations.
A committee is to be formulated to consider all the cases pertaining to **plagiarism and use of unfair means** in exams. Two committees are formed: one each for MBBS and BDS. These committees are to be headed by their respective Principals.

The Committee shall follow the following procedures in handling such cases:

a. The Invigilator who has caught the student using unfair means will report to the Head Invigilator who will inform the Head of Examination Department BUDC.
b. The material being used, and the answer sheet will be confiscated immediately.
c. The Principal Dental College will be informed at once.
d. Further action will be taken locally by the Disciplinary Committee against use of Unfair Means and Plagiarism which has been formed. The punishments which this committee can advise are withdrawal from that paper, withdrawal from the entire examination but allowed to sit for supplementary or to repeat the year or get expelled from college.
e. Director General BUHS will be the approving authority for the recommendations of the committee.
f. Director Examinations BUHS will be informed in writing of the action taken.
g. The material being used and the concerned answer sheet will be sealed and kept at BUDC Examinations department until after the result of the supplementary exams is announced.
h. Instruction explaining the term "unfair means" will be displayed at the venue of examination as well as given in study guide.
i. Following actions are considered as "unfair means"
    - Possession of written material/ books/ notes of any sort within the examination venue, whether that material is related of unrelated to the paper.
    - Writing on palm, arm or anywhere on the candidates body / clothing.
    - Any attempt to copy, take or give help during examination.
    - Possession of mobile phones, PDAs, and any other electronic device.

STUDENTS GRIEVANCES OVERSIGHT COMMITTEE

There shall be a Student Grievances Oversight Committee (SGOC), at CU level for each department, to address grievances of students against any teacher, instructor, or administrative staff, with respect to matters of code of conduct, grades, or any administrative matter. The committee shall comprise:

a) Head of CU.
b) HOD.
c) CU Exam-In-charge.
d) Two (2) seniors most FMs of the department.

If grievance is about the award of a grade, the procedure shall be as follows:

a) The student must submit the grievance, in writing, within seven working days of the receipt of the grade, to the HOD who shall forward it to the SGOC
b) The SGOC shall hear both sides and will give its decision, which shall be final and binding on all parties, within five working days or before the start of registration for the new semester, whichever is earlier.

REDRESS OF GRIEVANCES

In the event of an academic grievance, the student should first make an appointment to discuss the grievance with the faculty involved. Hopefully the issue will be resolved amicably at this stage, but if it is not, the student may request for an appointment with the Head of Department, who will investigate the complaint by obtaining data and statements from all parties involved and will attempt to resolve the grievance by mutual consent of the student and faculty member. However, if the matter is still unresolved the HOD will refer the case to Director for decision. If the Director's decision does not redress the grievance of the student the matter would be referred to DG campus, and finally the Rector.

LEARNING STRATEGIES

- **Interactive Lectures**

The traditional lecture system is used to introduce a subject and discuss the broad concepts in that specific field of study. Interactive lectures to smaller groups remain an effective and essential way of teaching. More recent methods of learning and teaching, such as case-based learning and small group-based problem-solving sessions are also employed.

- **Flipped Classroom:**

It is a type of blended learning, which aims to increase student engagement and learning by having pupil's complete readings at home and work on live problem-solving during class time.

- **Small Group Based Learning**

Small group and tutorial sessions are regularly held to enable students to discuss the details of a lecture topic. Students are expected to prepare presentations on applied topics and discuss their implications with their fellow students. The lecturer acts as a facilitator. By participating in these group discussions, students can interact and learn from one another such as PBL, CBL and TBL etc.

- **Hands on Training**

Being in final year students will deal daily with patients in OPD, to gain, enhance and polish their clinical knowledge and skills. Lectures and tutorials will regularly be held for providing clinical orientation on the subjects.

- **Mini-CEX** (**Mini Clinical Evaluation Exercise**) and **DOPS (Direct Observational Procedural Skills):**

These are work place based assessment tools (WPBAs) used in clinical settings by supervisors. In Mini-CEX, the trainee is evaluated regarding history taking, physical examination skills, communication skills, clinical judgment, professionalism, organization/efficiency, and overall clinical care. In DOPS, the **focus lies on procedural skills** followed by feedback.

- **Community-based Learning**

BUDC is committed to provide the environment and training that would enable professionals to successfully contribute to the improvement of the health sector, particularly in less privileged communities under the Community-Oriented Medical Education Program.

The university involves its students in research-developing work in these designated communities. Students are encouraged to participate in the preventive and curative care and management of patients and their families in Primary Health Care field settings.

- **Problem Based Learning (PBL)**

PBL promotes active learning and critical thinking in small collaborative groups. In PBL, problem introduces a real patient or as hypothetical case. Students identify the key elements of the case, develop and test hypothesis based on pathophysiological mechanisms, decide on diagnosis, and discuss principles of management. Content of PBL reflects horizontal integration of curriculum. The development of PBL cases is a challenging process, as each case must reflect a defined set of learning objectives, have face validity, suit the student's stage of maturity, and fit with restraints of time and resources. A typical PBL tutorial consists of usually 8 to 10 students and a tutor, who facilitates the session with minimum interference. The PBL tutorials comprised of three sessions of two hours and the time is scheduled in timetable approximately two weeks before.

The PBL comprised of seven-jumps (Maastricht) such as clarifying terms, defining problem(s), brainstorming, structuring and hypothesis, learning objectives, independent study, and synthesis/presentation.

- **Case-Based Learning (CBL)**

Case-based learning (CBL) is an adaptation of the PBL process and more generally used in clinical context to develop clinical reasoning and judgment. Written case studies, prepared by tutors and students are required to work together to identify clinical problems, prepare differential diagnoses and suggest potential investigations and treatment. Students set their own learning objectives and identify the learning resources required to confirm or refute their diagnostic possibilities. The CBL format is flexible. CBLs are overseen by facilitators who guide the students in case they are not on the right track as unlike PBLs, the CBL session must be completed in one day.

- **Team Based Learning**

Team Based Learning provides students with resource effective, authentic experience of working in teams to solve real life clinical problems.

ATTENDANCE POLICY FOR STUDENTS

PMC rules for eligibility in annual examinations.

- **Minimum attendance requirement is 75% in each subject: attendance is for lectures, , clinics, CBLs, Tutorials, presentations etc: indoor and outdoor.**
- **The attendance is not simply for lectures.**
- **With effect from fall 2015 no shortfall in attendance will be condoned in any case by any authority. (24th ACM 27,28 May 2014).**

Attendance is maintained by the Department of Scholastic Records at BUDC.

All students should try and achieve 100% attendance. Every teaching session is essential. You are expected have at least 75% attendance in **all subjects individually** to be allowed to appear in the professional examinations.

- Lecture Attendance is marked at the start of the class.
- Students who come more than 10 minutes late will be marked absent.
- A random head count is done to ensure correct entry of attendance.
- The attendance sheet is signed by the teacher and sent to Scholastics Department.
- The attendance is entered the spreadsheet as soon as possible on that day.
- No correction will be made later than 24 hours as the system is then locked.

ATTENDANCE FOR LECTURES, OPD, PRACTICALS ETC

- Student signs the attendance sheet in front of the teacher in OPDs.
- The teacher countersigns in every class/tutorial.
- Weekly attendance is given by the department to the Scholastics Department - every Monday.
- Faculty has to submit attendance later than Friday of the current week.

The University rules permit a 25% short fall for genuine reasons of personal ill health of a life-threatening nature or unavoidable circumstances such as death of a blood relative.
This 25% relaxation cannot be taken in case of students going away for holidays.

In case of attendance less than 75% even due to health issues, you will be asked to repeat the year.

ATTENDANCE POLICY FOR STUDENTS REPEATING THE YEAR

a. Students who are repeating the year either due to poor attendance or failure in professional or supplementary examination will need to attend all the classes of the particular subject the next year.
b. Their previous years' attendance will not be counted again.
c. If their attendance is **AGAIN** less than 75% in current classes, they will not be allowed to appear in the next upcoming examination.
d. If a student is repeating one subject, then attendance must be more than 75% in that subject. This includes all practical classes, demonstrations, PBL sessions, lectures and OPD.

ATTENDANCE POLICY FOR STUDENTS APPEARING IN SUPPLEMENTARY EXAMS

a. Only students who have appeared in professional examination can appear in supplementary examination**.**
b. Students who were not eligible for the annual exam will not be eligible for the supplementary exam.
c. Those who did not avail the chance must repeat the year and cannot appear in the supplementary.
d. The student will prepare for the supplementary exam in his/her own time.
e. In case the student fails to pass the supplementary exam he/she will revert to the previous class.
f. Those students who do not attend classes will be marked absent and may face a shortage of attendance and will be asked to repeat the year.

ELIGIBILITY CRITERIA FOR APPEARING IN ANNUAL PROFESSIONAL EXAMINATIONS

A student will be eligible to appear in the annual professional examination if he/she fulfills the following criteria:

a. 75% attendance.
b. Have cleared all financial dues.
c. Must appear in all three end-of-module examinations.
d. Must have scored passing marks in at least two of end of module examinations.
e. No breach of discipline should have occurred for which the Disciplinary Committee has advocated a punishment.
f. A student who has failed 2 end-of-module tests will be permitted a "re-sit" at the end of the academic year.
g. Students who did not appear in end of module tests will not be allowed in the "re-sit".
h. No student can appear in one subject in an annual professional examination but must appear in all the subjects for that year.
i. Subjects may be designated for the supplementary exams or for students repeating a year.
j. There will be no remedial or extra classes in any subject for making good the shortfall in attendance.
k. Departments may offer revision classes, but these will not be considered formal classes and will not be entered in the regular attendance.

THE MODULAR SYSTEM

Organization of modular curriculum and teaching

a. Each Academic Year is divided into 3 Modules of 3 months' duration each

- **First Year - Modules - 1,2,3**
- **Second Year - Modules - 4,5,6**
- **Third Year - Modules - 7,8,9**
- **Final Year - Modules - 10,11,12**

b. Learning objectives for each module are written down in the study guide issued at the beginning of each academic year to each student. Curriculum for each module can be provided on request.

c. A schedule is issued for each module re-enforced by a weekly schedule issued 2 weeks in advance of the teaching dates.

d. This includes lecture, CBL, Practical's, Demonstrations, Ward Clinics, Classes in Skills Lab, Self-Study, and Library period.

e. The assessment schedules i.e., end of modules tests as well as period of preparation leave and timing of OSCE/ OSPE is given in the above schedule.

f. The assessment result is displayed on departmental notice boards and recorded in the Examinations Department BUDC.

ASSESSMENT POLICY FOR MODULES

There is a policy of ongoing or formative assessment of all students and summative assessment at the end of the module.

Formative or ongoing assessment:

- Formative assessment will be done on:
    - CBL/PBL/WPBAs sessions
    - Logbooks
    - Presentations assignments
    - End of OPD rotation examinations, quizzes and tests held in a department.

Summative Assessment:

- The end-of-module test comprises:
    - OSCE or OSPE examination
    - Viva voce exam.
    - Written theory examination
    - The written examination has 2 parts an MCQ and a short answer or short essay type examination.

Generation of internal evaluation marks from each module.

- 20% MARKS will be calculated from each end of module exam and will be counted in the final examinations.

STUDENTS AWARD POLICY

1. MEDALS

. **Committee**

Prof Dr. Syed Ahmed Omer HOD Science of Dental Materials

Sr Prof. Dr. Saman Hakeem HOD Prosthodontics

a. **Eligibility criteria is as under**

(1) <u>Gold Medals</u>

Are awarded to the students scoring highest aggregate marks of all professional examinations

(2) <u>Silver Medal</u>

Student/s getting second highest aggregate marks of all professional examinations

2. SCHOLARSHIP CRITERIA

. 1st, 2nd, and 3rd position holder from each professional examination for MBBS.

a. 1st and 2nd Position holder from each professional examination for BDS

b. Highest marks in the class not less than 70%

c. Eligible students must have appeared and passed in all modular exams of the same year

3. MERIT CERTIFICATES

. Awarded to the students scoring highest percentage in various professional subjects

POLICY FOR ELECTIVES

a. Electives are not mandatory nor are they a part of the curriculum. Electives are considered add on extra-curricular activities with benefits for selection for jobs or postgraduate training after BDS.

b. The Electives Rotation will be of four weeks' duration.

c. It will be planned at least six months in advance during the 3rd or 4th Year.

d. The Elective will be planned during the **SUMMER HOLIDAYS** preferably.

e. The institution or department will be of the student's choice.

f. During the elective, the student will not get credit for attending lectures at BUDC.

g. It is the student's responsibility to ensure that his/her overall attendance record is not affected adversely by the elective.

h. The student will not proceed on an elective without informing the Associate Dean designated for this purpose who will take permission from the Principal.

i. The student will sign a waiver to the effect that any shortfall in attendance is his /her own responsibility and will be dealt with as per rules of Bahria University Health Sciences.

j. The adequacy of education during the elective is the student's own responsibility.

k. Permission to attend an elective is given by the Associate Dean designated for this purpose at BUDC. This simply implies that the college authorities are aware that the student is away for this period so that admission is not cancelled.

l. The student will ensure that the Elective Supervisor completes an evaluation report at the end of the elective.

m. BUDC will not provide any financial assistance for the elective.

MENTOR SCHEDULE

MENTORS	PROGRAM INCHARGE
1. Dr. Samra	
2. Dr. Fatima Khaliq	
3. Dr. Moona	DR KULSOOM FATIMA RIZVI
4. Dr. Tauqeer Bibi	
5. Dr. Hadi	

Who to contact?

The class is divided into equal groups of students and each group has a designated teacher, who works as their mentor. The students will meet their mentor once a month i.e Thursday of every third week, in their office to discuss the academic, social, and other problems with them and seek their advice and guidance.

The mentor will report to the head mentor monthly, in case any problem is not resolved even at that level, then the head mentor can refer the case to Vice Principal and then Principal accordingly.

DEPARTMENT OF DENTAL EDUCATION

High-quality medical /dental education is a vital prerequisite for high-quality patient care. Dental education's aim is to supply society with a knowledgeable, skilled, and up-to-date cadre of professionals who put patient care above self-interest, along with developing their expertise over the course of a lifelong career.

The department of Dental Education has expanded beyond the classroom all around the world and quality patient care is learned by the bedside teaching and with the practical introduction of clinical cases in preclinical years. The Dental Education department ensures that the educational content synchronizes with the learning strategies, the assessment tools and provides effective feedback to enhance the learning process. The department of Dental Education at Bahria University Dental College is interested in raising the standards of the teaching by continuously developing a pool of trained faculty members. For this purpose, interactive sessions and hands-on workshops are constantly designed, focusing on current and effective modes of evidence-based teaching and assessment tools. It fosters flexible and a learner-centered approach during teaching. Self-reflection and critique of teaching techniques are also vital in propelling an institute towards excellence. Our Dental Education department aims to achieve that and more.

.

Faculty:

Facilitators	Dr. Akbar Abbas	Senior Registrar
	Dr. Kulsoom Zahir	Lecturer

DIRECTORATE OF STUDENTS' ACTIVITIES

Directorate of Student Affairs is responsible for providing a constructive learning environment that fosters positive learning, personal development and enhances the quality of life for students. This department encourages students to achieve the objective of building a balanced personality.

The Directorate of Students Affairs establishes a connection between students, faculty, and University administration. It is an important component of university that offers a platform for curricular and co-curricular activities to explore, enlighten and polish the hidden capabilities of the students so that they can enjoy pleasant environment and deliver a series of programs to enrich the campus life. It is committed to enable all students to participate in an engaging, healthy, and active learning environment during their time at BUDC. All these pursuits tend to improve the level of confidence among the students.

The Directorate has following major duties

- To promote extra co-curricular and cultural activities such as organizing Debate competitions, Quiz competitions, workshops, Bake sale, welcome party and farewell.
- Providing sports facilities and regular organization of sports competition.
- Arranging different lecture sessions for Personal and Professional Development.
- Arranging community visits.
- Conducting various seminars on current national and international issues.
- Arranging blood donation camps.

COMPETENCIES AND LEARNING OUTCOMES OF DENTAL UNDER-GRADUATES

COMPETENCIES

1. **Skillful**
2. **Knowledgeable**
3. **Community health promoter**
4. **Critical thinker**
5. **Professional**
6. **Researcher**
7. **Leader**

1. Skillful:

Under Graduates must be competent to:

1.1 Apply appropriate interpersonal and communication skills.

1.2 Apply psycho-social and behavioral principles in patient-centered health care.

1.3 Communicate effectively with individuals from diverse populations.

1.4 Well versed with basic dental morphology and application of dental materials

2. Knowledgeable

A. Assessment, Diagnosis, and Treatment Planning

Under Graduates must be competent to:

2.1 Manage the oral health care of infant, child, adolescent, and adult, as well as unique needs of women, geriatric, and special needs patients.

2.2 Identify, prevent, and manage trauma, oral diseases, and other disorders.

2.3 Obtain, and interpret patient / medical data, including a thorough intra/extra oral examination, and use these findings to accurately assess and manage patients.

2.4 Select, obtain, and interpret diagnostic images for the individual patient.

2.5 Recognize the manifestations of systemic disease and how the disease and its management may affect the delivery of dental care.

2.6 Formulate a comprehensive diagnosis, treatment, and/or referral plan.

B. Establishment and Maintenance of Oral Health

Under Graduates must be competent to:

2.7 Utilize universal infection control guidelines for all clinical procedures.

2.8 Prevent, diagnose, and manage pain and anxiety in the dental patient.

2.9 Prevent, diagnose temporo-mandibular joint disorders.

2.10 Prevent, diagnose, and manage periodontal diseases.

2.11 Develop and implement strategies for the clinical assessment and management of caries

2.12 Manage restorative procedures that preserve tooth structure, replace missing or defective tooth structure, maintain function, are esthetic, and promote soft and hard tissue health.

2.13 Diagnose and manage developmental or acquired occlusal abnormalities.

2.14 Manage the replacement of teeth for the partially or completely edentulous patient.

2.15 Diagnose, identify, and manage pulpal and peri-radicular diseases.

2.16 Diagnose and manage oral surgical treatment needs.

2.17 Prevent, recognize, and manage medical and dental emergencies.

2.18 Recognize and manage patient abuse and/or neglect.

2.19 Recognize and manage substance abuse.

2.20 Evaluate outcomes of comprehensive dental care.

2.21 Diagnose, identify, and manage oral mucosal and osseous diseases.

3. Community Health Promoter

Under Graduates must be competent to:

3.1 Provide prevention, intervention, and educational strategies.

3.2 Participate with dental team members and other health care professionals in the management and health promotion for all patients.

3.3 Recognize and appreciate the need to contribute to the improvement of oral health beyond those served in traditional practice settings.

4. Critical Thinker

Under Graduates must be competent to:

4.1 Evaluate and integrate emerging trends in health care as appropriate.

4.2 Utilize critical thinking and problem-solving skills.

4.3 Evaluate and integrate best research outcomes with clinical expertise and patient values for evidence-based practice.

5. Professional

Under Graduates must be competent to:

5.1 Apply ethical and legal standards in the provision of dental care.

5.2 Practice within one's scope of competence and consult with or refer to professional colleagues when indicated.

6. **Researcher**

Under Graduates must be competent to:

6.1 Apply the current research for innovations in treatment, keeping at par with international standards

6.2 Conduct independent research based on the community requirements

7. **Leader**

Under Graduates must be competent to:

7.1 Manage self, taking responsibility and utilizing the time to the best of his/her ability.

7.2 Effectively work in a group, as a leader or as a team member.

7.3 recognize and comply with the working system of any Institute.

INTRODUCTION TO DEPARTMENTS

Department of Community Dentistry

Department of Science of Dental Materials

Department of Pre-clinics (Prosthodontics and Operative Dentistry)

Department of Pharmacology

Department of Pathology

DEPARTMENT OF COMMUNITY & PREVENTIVE DENTISTRY

Community/Preventive dentistry is the dynamic field of dentistry which provides basic & advanced health knowledge to an individual and group of people, prevention of oral/dental diseases & awareness of oral hygiene in population. Community Dentistry is a basic science subject taught in the second professional year BDS. The main purpose of the subject is to achieve good oral hygiene & health awareness in public through organized community efforts.

This course aims to stimulate the interest and encourage a questioning approach to community dental health issues and their relationship to clinical practice. The curriculum provides the student with broad knowledge and practical experience in the philosophy and basis of the dental public health primary health care approach, an introduction to epidemiology of oral diseases as it relates to dental research, behavioral sciences, biostatistics and oral health services.

The subject is essential to the practice of dentistry as it promotes understanding of sociology of oral health, oral health promotion and provision of oral health care and puts it in the context within society and seeks to answer questions at a population level.

HOD	**Prof. Kulsoom Fatima Rizvi**	**Professor**
Facilitator		
	Dr. Maria Moin	Assistant Professor
	Dr. Muhammad Mohsin Haider	Senior Lecturer
	Dr. Hajra Asghar	Lecturer

DEPARTMENT OF SCIENCE OF DENTAL MATERIAL

The Science of Dental Materials is an applied basic science DISCIPLINE dealing with the physical, chemical and biological properties of the materials used in clinical dentistry and their interaction with the oral tissues. An understanding of these properties as well as their handling is critical to the selection and various applications of dental materials in the field of dentistry.
The Department of Dental Material includes a team of experienced and dedicated teachers. It also has a well-equipped laboratory where students can develop basic practical skills and get acquainted with commonly used dental materials.

To meet the challenges of present day educational standards and to facilitate scientific knowledge at a professional level, the department acquires various teaching schemes such as interactive lectures, hands-on preclinical procedures, video demonstration, tutorials, practical, guest speaker sessions & routine assessment tests.

HOD	**Prof. Dr. Syed Ahmed Omer**	**Professor**

Facilitators

Dr. Muhammad Arqam Najmi	Assistant Professor
Dr. Israa Ahmed	Senior Lecturer
Dr. Mansoor A. Dar	Senior Lecturer

DEPARTMENT OF PROSTHDONTICS

Preclinical Prosthodontics encompasses basic training of prosthetic dentistry using clinical simulation models. It also deals with laboratory procedures pertaining to different dental prosthesis.

It is imperative for the student to have knowledge regarding instruments, handling of the patient, laboratory procedures and some knowledge regarding clinical techniques before working in the actual clinical environment. It will prepare the students to work on real patients confidently and with basic knowledge in the coming academic years of B.D.S. By performing and observing laboratory techniques they will be able to apply and make appropriate chair side adjustments on real patients.

Students will be given academic and clinical training experience of prosthetic laboratory procedures and clinical principles and techniques on simulated dental models in phantom heads laboratory.

HOD	**Prof. Dr. Saman Hakeem**	**Professor**
Facilitator	Dr. Farnaz Ilyas	Assistant Professor
Co-facilitator:	Dr Anum Baqar	Senior Registrar
	Dr Syed Akbar Abbas Zaidi	Senior Registrar
	Dr Asim Monpuri	Senior Registrar
	Dr Fatima Hassan	Senior Registrar
	Dr Farah Javaid	Senior Registrar
	Dr Osama Yaseen	Lecturer

DEPARTMENT OF OPERATIVE DENTISTRY

It is the branch of dentistry concerned with the development of disease and damage to the dental hard tissues. The etiology, pathogenesis and diagnostics of injuries are studied, as are disease activity, prognoses, prevention work and reparative treatment.

The objective of this course is to give foundation knowledge of operative instrumentation, dental terminology, principles of cavity preparations, and basics of tooth restorations. The skills with a hand piece are mainly accomplished through the use of patients' simulation approaches. The restorations for teeth are taught in a dental operative phantom head laboratory. The development and practice of these skills using a hand piece (dental drill) begins at orientation and continues throughout the academic year.

Faculty:

HOD	**Prof. Dr. Shama Asghar**	**Professor**
Facilitator	Dr. Faisal Bhangar	Assistant Professor
Facilitator	Dr. Hasan Hameed	Assistant Professor
Facilitator	Dr. Ayesha Zafar	Senior Registrar
Facilitator	Dr. Meisha	Senior Registrar
Facilitator	Dr. Syed Adeel Ahmed	Senior Registrar
Facilitator	Dr. Umeed Jawaid	Senior Registrar
Facilitator	Dr. Imtiaz ul Haq	Registrar

DEPARTMENT OF PHARMACOLOGY

Pharmacology is the branch of Basic Health Sciences that deals with the drugs (medicines) and their use in a rational manner. It is the study of the effects of chemical substances on the functions of living system. As a science it was born in the mid-19th century based on the principles of experimentation. The knowledge of pharmacology is essential as modern medicine relies heavily on drugs as the main tool of therapeutics to prevent, diagnose and treat diseases. It involves the understanding of why to give, when to give, how to give a drug and how the given drug is going to solve the problem at molecular level.

Subject information will be transferred to the students through a combination of large group and small group sessions of lecture -based learning, case- based learning and experimental learning in the laboratory with an aim to keep our students in pace with the outside world. To enhance students' participation as active learners and to develop their skills, continuous medical education (CME), updates on pharmacological news, small projects, pharmacology exhibition, quiz competition and presentations are organized every year. Students are awarded with scores and certificates in each session for participating in such activities.

Head of Department	**Dr. Nasim Karim**	**Professor & Head**
Facilitators	Dr. Khalid Mustafa	Professor
	Dr. Talea Hoor	Professor
	Col (Retd) Dr. Ijaz Hussain Zaidi	Professor
	Dr. Ayesha Khan	Senior Lecturer
	Major (Retd) Dr. Muhammad Tanvir Ahmed	Senior Lecturer
	Dr. Mehar Fatima	Senior Lecturer
	Dr. Muhammad Kamran yousaf	Senior Lecturer
	Dr.Ghazal Raza	Senior Lecturer
	Dr. Syeda Hafiza Afsheen Nazar	Senior Lecturer
	Dr.Shizma Junejo	Senior Lecturer
	Dr. Hafiza Tauseef Sayyar	Pharmacist
	Dr. Mahwish Mansoor	Senior Lecturer
	Dr.Muhammad Ali	Lecturer
	Dr. Mehak Raza	Lecturer
	Dr. Shiza Khan	Lecturer

DEPARTMENT OF PATHOLOGY

A dynamic and rapidly evolving field**, Pathology** is the study of disease, or more generally, the study of the biological response to adverse conditions. As an intellectual discipline, pathology bridges the basic and clinical sciences. Basic research into the causes and mechanisms of disease (experimental pathology) goes hand in glove with identifying the morphologic and biochemical manifestations of disease in human patients (anatomic and clinical pathology, respectively). All of these aspects of pathology have important diagnostic and therapeutic implications for patient care. Teaching of this body of knowledge at various pre- and post-doctoral medical and scientific levels of interest and understanding provides a unifying component to laboratory and clinic.

The Department of Pathology at Bahria University is a large multi-disciplinary department having two wings: Basic, located in the premises of Bahria University Medical & Dental College, Karachi and Clinical, functioning at PNS Shifa, Karachi. It is one of the seven basic science departments at BUM & DC. Our diverse faculty teaches in different phases of MBBS and BDS undergraduate programs as well as engaged in post-graduate fellowship training in various specialties of pathology.

Our mission is to provide a research-based academic environment that allows our faculty, students, fellows and staff not only to succeed, but to excel. Our goal is to advance our fundamental understanding of the pathology and the patho-physiologic mechanisms of disease, and to bring this knowledge to others through teaching and publication.

Head of Department	**Dr. Yasmeen Taj (Micro)**
Professor	Dr. SummayyaShawana (Histo-path)
Professor	Dr. NaveedFaraz (Microbiology)
Associate Professors:	Surg Cdr Luqman Satti
Assistant Professors:	Dr. Hina Wasti
	Dr. BeenishHussain
	Dr. Shaista Khurram
Lecturer:	
	Dr. Aafaq khan
	Dr. Hira Faisal
	Dr. Yumna Shahid
	Dr. Maria Ali
	Dr. Kiran Saleem

MODULE IV

(Community Dentistry, Dental Materials, Prosthodontics, Pharmacology, Pathology)

At the end of the module, student should be able to:

	COMMUNITY DENTISTRY	Teaching Method	Online Capacity	Assessment Mode
1.	Define dental public health and its significance	IL, SGD	✓	SEQs,Viva
2.	Compare relevance of public health to clinical practice	IL, SGD	✓	SEQs
3.	Discuss criteria for public health problem	IL, SGD, PBL	✓	BCQs, SEQs, PBL, Viva,
4.	Justify dental caries, periodontal disease and oral cancer as a public health problem	IL, SGD, PBL, FV	✓	BCQs, SEQs, PBL, Viva
5.	Explain features of biomedical model of health	IL, SGD	✓	SEQS
6.	Discuss Alma Ata Declaration along with its features	IL, SGD, FV	✓	BCQs, SEQs, OSPE,Viva,
7.	Explain the salient features of Ottawa Charter	IL, SGD, PBL, FV	✓	BCQs, SEQs, OSPE,Viva,PBL
8.	Describe core themes of dental public health	SGD	✓	SEQs,Viva,
9.	Explain the implications of dental public health	SGD	✓	SEQs, , Viva
10.	Describe the limitations of life style approach	SGD	✓	BCQs, SEQs, Viva,
11.	Describe determinants of oral health	IL, SGD, PBL,	✓	BCQs, SEQs, OSPE, PBL, Viva,
12.	Discuss the basic package of oral care (BPOC) with its examples	IL, SGD, PBL, FV, VD, lab skills	✓	BCQs, SEQs, OSPE, PBL, Viva,
13.	Define health, disease, disability, illness & ill health	IL,	✓	SEQs, Viva,
14.	Compare health with disease & illness	SGD	✓	SEQs
15.	Discuss dimensions of health	IL, SGD	✓	BCQs, SEQs, Viva,
16.	Understand different concepts and taxonomy of need	IL, SGD	✓	BCQs, SEQs, Viva,
17.	Define inequalities in oral health	IL	✓	BCQs, Viva
18.	Illustrate conceptual model of oral health	SGD	✓	SEQs, OSPE
19.	Define risk	SGD	✓	BCQs, Viva

20.	Describe principles of strategy design	IL, SGD	✓	SEQs, Viva,
21.	Explain different strategy approaches with examples	IL, SGD, PBL,	✓	BCQs, SEQs, Viva,.
22.	Define and classify epidemiological studies	IL, SGD	✓	BCQs, SEQs, Viva,
23.	Describe the scope of epidemiology	SGD	✓	SEQs, Viva,
24.	Define epidemiological triad and discuss its factors	IL, SGD	✓	BCQs, SEQs, Viva,
25.	Compare different types of epidemiological studies in detail	IL,	✓	BCQs, SEQs, OSPE, Viva,
26.	Discuss descriptive studies	IL,	✓	BCQs, SEQs, VIVA,
27.	Discuss analytical studies	IL,	✓	BCQs, SEQs, VIVA,
28.	Discuss and calculate different measures applied in epidemiology surveys	SGD, Practical	✓	BCQs, SEQs, OSPE, Viva,
29.	Define screening and its aims	IL	✓	BCQs, SEQs, Viva,
30.	Describe the principles and its type of test	IL	✓	BCQs, SEQs, Viva,
31.	Define causation and association	SGD	✓	SEQs, Viva,
32.	Explain Bradford Hill's Criteria	IL,	✓	BCQs, SEQs, Viva,
33.	Describe etiology , natural history & epidemiology of dental caries and early childhood caries	IL, SGD, PBL, Practical , VD, OPD, FV	✓	BCQs, SEQs, OSPE, PBL,Viva,
34.	Recognize etiology, natural history & epidemiology of periodontal disease	IL, SGD, PBL, Practical , VD, OPD, FV	✓	BCQs, SEQs, OSPE, PBL,Viva,
35.	Discuss etiology, natural history & epidemiology of oral cancer	IL, SGD, PBL, Practical , VD, OPD, FV	✓	BCQs, SEQs, OSPE, PBL,Viva,
36.	Explain etiology, natural history & epidemiology of dental fluorosis	IL, SGD, PBL, Practical , VD,	✓	BCQs, SEQs, OSPE, PBL,Viva,

		OPD, FV		
37.	Discuss different types of Traumatic Dental Injuries	IL,SGD	✓	BCQs, SEQs
38.	Discuss different types of non carious lesions	IL,SGD	✓	BCQs, SEQs
39.	Define index and its objective	IL,	✓	SEQs, Viva
40.	State the properties of an ideal index	IL,	✓	SEQs, Viva
41.	Describe the purpose and uses of an index	IL,	✓	SEQs, Viva
42.	Enumerate and discuss different dental indices for oral diseases (PI, GI, OHI, CPITN)	SGD,	✓	BCQs, SEQs, Viva,
43.	Discuss limitations of existing indices	IL,	✓	SEQs, Viva,
44.	Identify different tooth notation systems	SGD, Practical	✓	OSPE,
45.	Predict age on clinical pictures and study models	SGD, Practical	×	OSPE
46.	Demonstrate ergonomics in clinical practice	SGD, Practical	✓	OSPE,
47.	Perform exercises on patients in the out patients department	SGD, OPD	×	OSPE
48.	Execute examination of institutionalized population like school children	FV,	✓	OSPE
49.	Calculate different measures of oral diseases used in epidemiology	Practical	✓	OSPE
50.	Calculate DMFT measurement	SGD, Practical , FV	✓	OSPE
51.	Describe dental caries indices such as ICDAS & PUFA	SGD	✓	Viva
52.	Calculate CPITN and other periodontal measurements (PI, GI, OHI, CPITN)	SGD, Practical , FV	✓	OSPE
53.	Predict the types of Fluorosis	SGD, Practical , FV	✓	OSPE
54.	Topic selection	SGD, Practical	✓	Assign
55.	Literature search	SGD, Practical	✓	Assign
56.	Synopsis Draft	SGD, Practical	✓	Assign, CP
	SCIENCE OF DENTAL MATERIALS			
57.	Understand the structure of tooth and supporting tissues	IL	✓	BCQs, SEQs,Viva
58.	Enlist tooth numbering systems	IL	✓	BCQs, SEQs.
59.	Enlist different groups of dental materials and their nomenclature	IL	✓	BCQs
60.	Define 'the science of dental materials'	IL	✓	Viva

61.	Identify the role of ADA specification concerning dental materials	IL	✓	BCQs, Assign
62.	Explain the selection criteria of dental materials	IL	✓	BCQs, Viva, Assign
63.	Identify different dental appliances, prosthesis and restorations	PBL, SD	✓	OSPE, PBL, Viva.
64.	Enlist the properties of dental materials during storage, mixing, manipulation and setting	IL	✓	BCQs, SEQs, Assign, Viva
65.	Differentiate between mixing time, working time and setting time	IL	✓	BCQs, SEQs, OSPE
66.	Enlist the mechanical properties of dental materials	PBL	✓	BCQs, SEQs, OSPE, Assign, PBL, Viva.
67.	Define the following terms: stress, strain, yield stress, proportional limit, modulus of elasticity, resilience, toughness, ductility, malleability, impact strength, fatigue, hardness, creep , flow	IL, SD	✓	BCQs, SEQs, OSPE, PBL, Viva, Assign
68.	Relate stress and strain through graph	IL	✓	SEQs, Assign
69.	Differentiate between abrasive wear ,erosion and solubility	IL	✓	BCQs, SEQs, Viva.
70.	Differentiate between elasticity and viscoelasticity	IL	✓	BCQs, SEQs, Viva.
71.	Differentiate between creep and flow	IL	✓	BCQs, SEQs, Viva
72.	Define vicker's hardness number	IL	✓	BCQs, SEQs
73.	Define rheology	IL	✓	BCQs, SEQs
74.	Discuss the relationship of shear rate with flow index	IL	✓	SEQs
75.	Enlist the thermal properties characterizing dental materials	IL	✓	BCQs, SEQs, Viva, Assign.
76.	Define adhesion , adherend and adhesive	IL	✓	BCQs, SEQs, Viva
77.	Explain bonding of restorative materials through macromechanical retention,micromechanical retention and chemical adhesion	IL	✓	BCQs, SEQs, OSPE, Viva, Assign,
78.	Correlate contact angle, wetting and surface tension	IL	✓	BCQs, SEQs, OSPE
79.	Enlist factors which affect dimensional stability of dental materials	IL	✓	SEQs, Assign, CQ
80.	Define hue, chroma and value	IL	✓	BCQs, SEQs, OSPE, Assign, CQ
81.	Discuss corrosion and tarnish	IL	✓	BCQs, SEQs, Viva,
82.	Discuss biological properties and health hazards of various materials	IL	✓	SEQs, CQ
83.	Discuss chemical properties related to the chemical stability of materials	IL	✓	BCQs, SEQs, CQ
84.	Enlist the types of dental gypsum products as identified by the ISO standard	IL	✓	BCQs, SEQs, OSPE, Viva,

				Ppt, CQ. competition
85.	Discuss the ideal requirements for dental cast materials	IL	✓	BCQs, SEQs, Viva,
86.	Differentiate between model and die	IL, SD	✓	BCQs, SEQs, OSPE,
87.	Discuss the composition and formation of dental plaster and stone	IL	✓	BCQs, SEQs, OSPE, Assign, Viva, PW
88.	Differentiate between the properties of dental plaster and stone	IL, SD	✓	BCQs, SEQs, OSPE, , Viva, PW
89.	Enlist the types of dental gypsum products as identified by the ISO standard	IL	✓	BCQs, SEQs, OSPE, Assign, Viva
90.	Discuss and demonstrate the manipulation of dental plaster and stone	IL, SD, VD	✓	BCQs, Assign, Viva, PW
91.	Explain the setting reaction of dental gypsum products	IL	✓	BCQs, SEQs,Assign, Viva, PW
92.	Enumerate the factors which affect setting time of dental plaster and stone	IL	✓	BCQs, SEQs, Viva
93.	Discuss the advantages and disadvantages of gypsum to be used in making die and models	IL	✓	BCQs, SEQs, Viva
94.	Enlist alternate materials for making dental casts	IL	✓	SEQs, OSPE, Viva
95.	Discuss faults in casts	IL	✓	BCQs, SEQs, Viva, Assign
96.	Highlight methods for disinfection of casts	IL	✓	BCQs, SEQs ,OSPE
97.	handling of dental plaster and stone through video demonstration	VD	✓	PW
98.	Demonstrate manipulation of dental plaster and stone in laboratory	SD		PW
99.	Fabricate a ¾ plaster slab in laboratory	SD		PW
100.	Effect of temperature of water on the setting reaction of gypsum	IL, SD	✓	SEQs, Viva, PW
101.	Classify and identify the different types of dental waxes and discuss their clinical applications.	IL	✓	BCQs, SEQs ,OSPE
102.	Discuss the composition of dental waxes	IL	✓	BCQs, SEQs, Viva
103.	Discuss the general properties of dental waxes	IL	✓	BCQs, SEQs, Viva
104.	Discuss the specific types, properties and uses of denture modeling wax	IL	✓	BCQs, SEQs ,OSPE, Viva
105.	Discuss the specific types, properties and uses of inlay wax	IL,VD	✓	BCQs, SEQs ,OSPE,
106.	Demonstrate manipulation of modeling wax in laboratory	SD		PW
107.	Outline the steps in making a cast restoration	PBL	✓	BCQs, SEQs ,OSPE, PBL

108.	Discuss the procedure of investment for casting alloys	IL,VD	✓	BCQs, SEQs ,OSPE, Assign,
109.	Discuss the requirements of investments for alloy casting procedures	IL	✓	SEQs , Assign, Viva
110.	Enlist the three main groups of investment material	IL	✓	SEQs,OSPE
111.	Discuss their composition, types, setting reaction, properties and uses	IL	✓	BCQs, SEQs,Viva
112.	Discuss in detail the compensating expansion taking place in each of the investment materials and relate it to their clinical use	IL	✓	BCQs, SEQs,OSPE
113.	Compare the properties of investment materials	IL	✓	BCQs, SEQs
114.	State the types of polymerization reactions	IL	✓	BCQs, SEQs,OSPE, Viva
115.	Discuss the steps taking place in each type of polymerization reaction	IL	✓	SEQs,OSPE, Viva,
116.	Correlate the molecular weight and degree of chain branching with propertiesof the resulting polymer	IL	✓	BCQs, SEQs, Viva, Assign
117.	Give examples of dental materials for each type of polymerisaton	IL	✓	SEQs,OSPE, Viva, Assign
118.	Discuss the physical changes occurring during polymerisation including the changes in phase ,temperature and dimension	IL	✓	BCQs, SEQs,OSPE, Viva
119.	State and explain the factors which control the structure and properties of polymers	IL	✓	BCQs, SEQs, Viva,
120.	Define glass transition temperature	IL	✓	BCQs, Viva,
121.	Discuss the methods of fabricating polymers	IL	✓	SEQs, Assign
122.	State the materials available for construction of denture base	IL	✓	SEQs,OSPE, Viva
123.	Discuss the ideal requirements for denture base polymers	IL	✓	SEQs , Viva, Assign
124.	Classify acrylic denture base materials according to the ISO standard	IL	✓	SEQs, Viva
125.	Discuss the composition of acrylic denture base materials	IL	✓	SEQs,OSPE,
126.	Discuss the manipulation/mixing of heat cure acrylic resin	IL, SD	✓	PW
127.	Identify the transitional stages which occur after mixing heat cured acrylic resin	IL, SD	✓	SEQs,OSPE, PW,
128.	Discuss dough moulding technique for making denture base	IL	✓	BCQs, SEQs, Viva
129.	Differentiate between doughing time and working time	IL	✓	SEQs,CQ

130.	Discuss the curing cycles for heat cured acrylic resin	IL, SD	✓	BCQs, SEQs,OSPE, Viva, PW
131.	State the possible reasons for warpage and its solution	IL	✓	SEQs, Viva
132.	Give reasons for crazing in acrylic resin	IL	✓	BCQs, SEQs,OSPE, Viva
133.	Discuss the different types of porosities which may occur in set acrylic resin and suggest ways to avoid their formation	IL	✓	BCQs, SEQs, OSPE, Viva
134.	Differentiate between injection moulding and dough moulding/compression moulding technique	IL	✓	SEQs, CQ, Assign
135.	Discuss the uses of different types of acrylic resin	IL, SD	✓	SEQs, Viva
136.	Enlist and explain the properties of acrylic resin	IL	✓	SEQs,OSPE, Viva, Assign
137.	Discuss the advantages of modified acrylic resins	IL	✓	SEQs,CQ,Assign
138.	State methods for disinfection of acrylic prosthesis	IL	✓	SEQs, Viva
139.	Demonstrate the manipulation of heat cured acrylic resin	IL, VD		PW
140.	Fabricate heat-cured acrylic partial dentures	SD		PW
141.	Classify denture lining materials	IL	✓	SEQs
142.	Discuss the types and composition of hard reline materials	IL	✓	BCQs, SEQs,OSPE,
143.	Discuss the advantages and disadvantages of hard reline materials	IL	✓	SEQs, Viva, Assign
144.	State the composition and requirements of tissue conditioners	IL	✓	SEQs, OSPE
145.	Explain the manipulation of tissue conditioners	IL	✓	SEQs,OSPE, Viva
146.	Correlate the properties of tissue conditioners with their use	PBL	✓	PBL, SEQs
147.	State the criteria for using temporary soft lining materials	IL	✓	SEQs, Assign
148.	Discuss the requirements for long term soft lining materials	IL	✓	SEQs,Assign
149.	Enlist and compare the materials available as permanent soft liners	IL	✓	SEQs,OSPE
150.	Discuss the harmful use of self-administered relining materials	IL	✓	SEQs
151.	Discuss the requirements of artificial teeth	IL	✓	CQ, Viva
152.	Enlist the materials available for making artificial teeth	IL	✓	SEQs, Viva, Assign
153.	Discuss the properties of these materials	IL	✓	SEQs,OSPE, CQ, Viva

154.	Discuss the advantages and disadvantages of acrylic and porcelain teeth	IL	✓	BCQs, SEQs,OSPE, Quiz, Ppt, Viva
	PROFESSIONALISM/ PRINCIPLES OF ETHICS			
155.	Explain the selection criteria of dental materials	IL	✓	Group Presentation
	PATIENT SAFETY			
156.	Discuss biological properties and health hazards of various materials	IL	✓	SEQs, CQ
157.	Discuss chemical properties related to the chemical stability of materials	IL	✓	BCQs, SEQs, CQ
	COMMUNICATION SKILLS			
158.	Identify different dental appliances, prosthesis and restorations	PBL, SD		OSPE, PBL, Viva.
159.	Communicate with peers & their facilitator during poster and presentation competitions.	Group Activity		Ppt
	PHARMACOLOGY			
160.	Describe various types of adverse drug reactions	IL, SGD.	✓	BCQs, SEQs, Viva
161.	Discuss the drug – drug interactions at pharmacodynamics level plot the given values on the graph paper and calculate therapeutic index and therapeutic window from it	IL, SGD.	✓	BCQs, SEQs, Viva
162.	Describe the pharmacokinetics and pharmacodynamics of glucocorticoids	IL	✓	BCQs, SEQ, Viva
163.	Describe the pharmacokinetics and dynamics of NSAIDS	IL, SGD, PBL	✓	BCQs, SEQs, Assign, Viva
164.	Describe the pharmacology of opioid analgesic drugs and their antagonists	IL, SGD.	✓	BCQs, SEQs, Viva
165.	Describe the drug treatment of migraine	IL	✓	BCQs, SEQs, Viva
166.	Describe the drug treatment of rheumatoid arthritis	IL	✓	BCQs, SEQs, Viva
167.	Discuss the treatment of acute gout and chronic gout	IL	✓	BCQs, SEQs, OSPE, Viva
168.	Describe the pharmacokinetics, clinical uses, contraindications, adverse effects And toxicity of cholinoceptor activators.	IL, SGD, PBL Lab Skills	✓	BCQs, SEQs, OSPE, Assign, Viva
169.	Describe the mechanism of action, clinical uses, contraindications, adverse effects and toxicity of cholinoceptor blocking drugs	IL, SGD, Lab Skills	✓	BCQs, SEQs, OSPE, Assign, Viva
170.	Describe the pharmacokinetics, clinical uses, contraindications, adverse effects and toxicity of adrenoceptor activators	IL, SGD, Lab Skills	✓	BCQs, SEQs, OSPE, Assign, Viva
171.	Describe the pharmacology of autacoids	IL	✓	BCQs, SEQs, Viva

172.	Describe the pharmacology of antiasthmatic and antitussive drugs	IL	✓	BCQs, SEQs, Viva
173.	Describe the pharmacokinetics and pharmacodynamics of adrenoceptor blocking drugs	IL, SGD, Lab Skills	✓	BCQs, SEQs, OSPE, Assign, Viva
174.	Identify the sources of drugs	Lab Skills	✓	OSPE
175.	Define the basic pharmacological terminologies	Lab Skills	✓	OSPE
176.	Identify the pharmaceutical preparations. (Part-1)	Lab Skills	✓	OSPE
177.	Identify the pharmaceutical preparations. (Part-2) (a) Identify the units of weights and measures belonging to different systems (b) Interconvert the units of weights & measures	Lab Skills	✓	OSPE
178.	Identify the different routes (I/V, I/M, S/C, I/P, I/D, topical) of drug administration in laboratory animals (mice, rat, rabbit, frog),and manikin (Skill Lab)	Lab Skills		OSPE
179.	(a) Prepare one percent stock solution of $KMnO_4$ (b) Find out the ingredients needed to prepare 100 ml of 0.01 % solution of MnO_4 from a stock solution of 1% strength	Lab Skills		OSPE
180.	Calculate the drip rate in adults and children	Lab Skills	✓	OSPE
181.	Find out the amount of the ingredients needed to prepare 60ml of 5% dextrose in normal saline solution	Lab Skills	✓	OSPE
182.	Calculate the dose of drugs in adults & children	Lab Skills	✓	OSPE
183.	Study the given case-1 and discuss it in small group session	Lab Skills	✓	OSPE
184.	Study the given case-2 and discuss it in small group session	Lab Skills	✓	OSPE
	PATHOLOGY			
185.	Define: cell injury atrophy, hypertrophy, hyperplasia and metaplasia. Describe the pathogenesis and clinical significance of these adaptative responses.	IL	✓	BCQ/SEQ
186.	Describe the following mechanisms of cell injury: hypoxic, ischemic/reperfusion, chemical and free-radical cell injury.	IL	✓	BCQ
187.	Differentiate between reversible and irreversible cell injury on the basis of biochemical and structural changes.	IL	✓	BCQ/SEQ
188.	Describe the mechanisms and morphological types of necrosis	SGDD	✓	SEQ/BCQ
189.	Describe the mechanisms and significance of apoptosis	SGDD	✓	BCQ
190.	Describe the etiology, pathogenesis and morphology of intracellular accumulations, lipids, proteins, glycogen and pigments	IL	✓	SEQ/BCQ
191.	Describe the pathogenesis and clinical significance of pathologic calcifications: dystrophic and metastatic calcifications	IL	✓	BCQ

192.	Define acute inflammation and give examples of diseases resulting from acute inflammation	IL	✓	BCQ
193.	Describe the mechanisms of vascular changes in acute inflammation	IL	✓	SEQ/BCQ
194.	Describe the following cellular events in acute inflammation: margination, pavementing, adhesion, diapedesis, chemotaxis, recognition, opsonization, phagocytosis and degranulation.	SGDD	✓	BCQ
195.	Discuss the role of local and systemic chemical mediators in inflammation.	SGDD	✓	BCQ
196.	Describe the different morphological patterns and outcomes of acute inflammation.	IL	✓	BCQ/SEQ
197.	Describe chronic inflammation, its causes and morphological features.	IL	✓	BCQ
198.	Describe the role of different cells in chronic inflammation.	IL	✓	BCQ
199.	Discuss the pathogenesis and morphology of chronic granulomatous inflammation.	IL/PBL	✓	BCQ
200.	Describe the systemic effects of inflammation	IL	✓	SEQ/BCQ
201.	Discuss the mechanisms of wound healing by primary and secondary intention.	IL	✓	SEQ/BCQ
202.	Discuss the local and systemic factors influencing wound healing.	IL	✓	BCQ
203.	Discuss the overview of general bacteriology.	ILD	✓	SEQ/BCQ
204.	Discuss the significance of medically important bacteria on basis of their classification.	IL	✓	BCQ
205.	Describe the structure of bacterial cell wall.	IL	✓	BCQ
206.	Correlate the bacterial genes to cause antibiotic resistance.	IL	✓	BCQ
207.	Explain the normal flora as permanent resistant of certain body sites.	SGDD	✓	SEQ/BCQ
208.	Use different staining technique and biochemical test to classify medically important bacteria	IL/PBL	✓	BCQ
209.	Discuss the effectiveness of bacterial vaccine.	IL	✓	SEQ/BCQ
210.	Describe the growth cycle of bacteria and their response to antibiotic during growth cycle	SGDD	✓	BCQ/SEQ
211.	Describe the types and principles of sterilization and disinfection.		✓	BCQ/SEQ
212.	Describe the pathogenesis, clinical presentation, diagnosis of staphylococcus.	SGDD	✓	SEQ/BCQ

213.	Describe the pathogenesis, clinical presentation, and diagnosis of streptococcus.	AS		BCQ
214.	Describe the pathogenesis, clinical presentation and diagnosis of Gram negative cocci.	IL		BCQ
215.	Describe the pathogenesis, clinical presentation and diagnosis of Gram positive spore forming rods.	IL		BCQ
216.	Discuss the pathogenesis, clinical presentation and lab diagnosis of non spore forming Gram positive rods.	IL	✓	BCQ
217.	Identify gross morphological features of hyperplasia of prostate	IL		BCQ
218.	Identify gross morphological features of atrophy of uterus and kidney	AS/SGDD		BCQ
219.	Identify gross morphological features of left ventricular hypertrophy	LAB SKILLS		OSCE/VIVA
220.	Identify gross morphological features of bowel infarction	LAB SKILLS		OSCE/VIVA
221.	Identify gross morphological features of caseating necrosis of lymph node	LAB SKILLS		OSCE/VIVA
222.	Identify gross morphological features of gangrene (intestine)	LAB SKILLS		OSCE/VIVA
223.	Identify gross morphological features of calcification of uterus	LAB SKILLS	✓	OSCE/VIVA
224.	Identify gross morphological features of acute appendicitis	LAB SKILLS		OSCE/VIVA
225.	Identify gross morphological features of chronic cholecystitis	LAB SKILLS		OSCE/VIVA
226.	Identify histopathological features of prostate	LAB SKILLS		OSCE/VIVA
227.	Identify histopathological features of endometrium	LAB SKILLS		OSCE/VIVA
228.	Identify histopathological features of hypertrophy (heart)	LAB SKILLS		OSCE/VIVA
229.	Identify histopathological features of metaplasia (oesophagus)	LAB SKILLS		OSCE/VIVA
230.	Identify histopathological features of coagulative necrosis (kidney)	LAB SKILLS		OSCE/VIVA
231.	Identify histopathological features of liquefactive necrosis (brain)	LAB SKILLS		OSCE/VIVA
232.	Identify histopathological features of caseation necrosis (lymph node)	LAB SKILLS		OSCE/VIVA

233.	Identify histopathological features of fatty change in liver	LAB SKILLS		OSCE/VIVA
234.	Identify histopathological features of hemosiderosis in liver	LAB SKILLS		OSCE/VIVA
235.	Identify histopathological features of metastatic and dystrophic calcifications	LAB SKILLS		OSCE/VIVA
236.	Identify histopathological features of acute inflammation (appendix)	LAB SKILLS		OSCE/VIVA
237.	Identify histopathological features of chronic inflammation (gall bladder)	LAB SKILLS		OSCE/VIVA
238.	Identify histopathological features of chronic granulomatous inflammation in lymph node	LAB SKILLS		OSCE/VIVA
239.	Identify histopathological features of chronic granulomatous inflammation in intestine.	LAB SKILLS		OSCE/VIVA
240.	Identify different parts of a compound microscope and their functions	LAB SKILLS		OSCE/VIVA
241.	Perform the procedure of simple staining	LAB SKILLS		OSCE/VIVA
242.	Perform the procedure of gram staining	LAB SKILLS		OSCE/VIVA
243.	Discuss various types of culture media	LAB SKILLS		OSCE/VIVA
244.	Perform various biochemical reactions and their interpretation	LAB SKILLS		OSCE/VIVA
245.	Perform antimicrobial drug sensitivity and resistance test	LAB SKILLS		OSCE/VIVA
	PRECLINICS-PROSTHODONTICS			
246.	Define appliance, prosthesis, restoration, denture, support, stability, retention, partial dentulism, edentulous, temporary prosthesis, abutment, undercut, guide planes, angle of cervical convergence, residual ridge, and denture foundation.	SGDD	✓	SEQ/BCQ
247.	Classify different dentate and edentate oral states.	SGDD	✓	SEQ/BCQ
248.	Apply Applegate's rule on different partially dentate states.	SGDD	✓	SEQ
249.	Enlist consequences of tooth loss.	SGDD	✓	SEQ
250.	Discuss the need of prosthesis.	SGDD		SEQ
251.	Delineate the phases of treatment planning of a prosthodontics patient.	SGDD	✓	SEQ
252.	Identify different types of prosthesis.	SGDD	✓	OSPE

253.	Choose appropriate treatment modality (prosthesis) according to number of missing teeth with justification.	SGDD	✓	SEQ/BCQ/ OSPE
254.	Select appropriate instrument for a given procedure.	SGDD		OSPE
255.	Identify equipment used in prosthodontics.	SGDD		OSPE
256.	Identify materials used in prosthodontics with its use.	SGDD		OSPE
257.	Differentiate between different types of cast according to material used.	SGDD		OSPE
258.	Define model and die.	SGDD	✓	SEQ/VIVA
259.	Classify casts.	SGDD	✓	SEQ/VIVA
260.	Define primary and secondary impression.	SGDD	✓	SEQ/VIVA
261.	Differentiate types of secondary impressions in regard to custom tray requirements and materials used	SGDD	✓	SEQ/BCQ/ OSPE
262.	Enlist impression materials for different types of impressions.	SGDD	✓	SEQ
263.	Define overjet, overbite, buccal overlap, centric relation, centric occlusion, Maximumintercuspation, curve of Spee and curve of Monsoon.	SGDD	✓	SEQ/VIVA
264.	Enlist steps of examining an edentulous mouth.	CS	✓	SEQ/VIVA
265.	Differentiate between natural teeth and artificial dentures.	SGDD	✓	SEQ/BCQ
266.	Enumerate surfaces of complete dentures.	PW		OSPE
267.	Sequence laboratory and clinical steps of complete denture fabrication.	PW		OSPE
268.	Produce properly contoured edentulous casts using silicone molds.	PW		OSPE/LB
269.	Identify the surfaces of the cast.	PW		OSPE
270.	Mark denture bearing area on the cast.	PW		OSPE
271.	Recognize anatomic landmarks and denture extensions/borders on the edentulous cast.	PW		OSPE
272.	Differentiate between custom tray and baseplate.	PW		OSPE
273.	Enlist different materials used for temporary and permanent baseplates with their properties	SGDD	✓	SEQ
274.	Identify common relief areas on edentulous maxilla and mandible.	PW		OSPE
275.	Enlist different methods of providing relief.	SGDD	✓	SEQ
276.	Provide relief before making a baseplate.	PW		OSPE/LB
277.	Fabricate permanent baseplates with heat cure acrylic resin.	PW		OSPE/LB
278.	Construct occlusal rims for tooth setup following proper guidelines.	PW		OSPE/LB

279.	Define articulation and articulators.	SGDD	✓	SEQ/VIVA
280.	Enlist types of articulators.	SGDD	✓	SEQ/VIVA
281.	Seal upper and lower occlusal rims in orthognathic relation.	PW		OSPE
282.	Articulate the upper and lower cast on a semiadjustable articulator.	PW		OSPE/LB
283.	Perform zeroing of a semi adjustable articulator	PW		OSPE
284.	Describe briefly different selection methods for choosing the shape, size and color of artificial teeth.	CS	✓	SEQ
285.	Enlist types of artificial teeth.	SS	✓	SEQ/VIVA
286.	Differentiate between porcelain and acrylic teeth.	SS		SEQ/BCQ/ OSPE
287.	Elucidate the relationship of teeth to the casts with proposed guidelines for tooth setup.	PW	✓	OSPE/SEQ/ BCQ
288.	Orient the anterior upper teeth according to five planes in the occlusal rims.	PW		OSPE/LB
289.	Orient the anterior lower teeth according to five planes in occlusal rims.	PW		OSPE/LB

BEHAVIORAL SCIENCE TOPICS INTEGRATION WITH OTHER DEPARTMENT	**LO NUMBER**
Dental Material	155-159

ACADEMIC SCHEDULE

Department of Community Dentistry

Department of Science of Dental Materials

Department of Pre-clinics (Prosthodontics and Operative Dentistry)

Department of Pharmacology

Department of Pathology

Weekly schedule of Module IV Community and Preventive Dentistry		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Introduction to Community Dentistry	Introduction to principle of dental public health L.O (1-10)
Week – 2	Determinants of health L.O (11)	Implication of DPH (BPOC) L.O (12)
Week – 3	Definition of health L.O (13-17)	Public health approaches to prevention L.O (18-21)
Week – 4	**Class assessment test**	Types of Studies and research design (Epidemiology I) L.O (22-24)
Week – 5	Epidemiology II L.O (25-28)	Screening L.O (29-30)
Week – 6	Indices – properties L.O (37 - 41)	Epidemiological Study Measures L.O (31-32)
Week –8	Epidemiology of Caries L.O (33)	Epidemiology of Periodontal Diseases L.O (34)
Week -9	**COMMUNITY FIELD TRIP**	
Week -10	Epidemiology of Fluorosis I L.O (36)	Epidemiology of Traumatic Dental Injuries L.O (37)
Week -11	Epidemiology of oral cancer L.O (35)	Types of non carious lesions L.O (38)
Week –12	REVISION	REVISION
Week-13	THEORY EXAMINATION	
Week-14	VIVA EXAMINATION	

Weekly schedule of Module IV Science of Dental Materials			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Introduction to science of dental materials **(LO = 57-60)**	Introduction to science of dental materials **(LO = 61-63)**	Properties used to characterize materials **(LO = 64-67)**
Week – 2	Properties used to characterize materials **(LO = 67-69)**	Properties used to characterize materials **(LO = 70-72)**	Properties used to characterize materials **(LO = 73- 75)**
Week – 3	Properties used to characterize materials **(LO = 76-78)**	Properties used to characterize materials **(LO = 79-83)**	**TEST** **(LO = 57- 83)**
Week – 4	Gypsum Products **(LO = 84-87)**	Gypsum Products **(LO = 88-91)**	Gypsum Products **(LO = 92-95)**
Week – 5	Gypsum Products **(LO = 96-100)**	Dental Waxes **(LO = 101-103)**	Dental Waxes **(LO = 104-106)**
Week – 6	Investment Materials **(LO = 107-110)**	Investment Materials **(LO = 111-113)**	**TEST** **(LO = 84-113)**
Week – 7	Synthetic Polymers **(LO = 114-115)**	Synthetic Polymers **(LO = 116-117)**	Synthetic Polymer **(LO = 118-119)**
Week –8	Synthetic Polymers **(LO = 120)**	Synthetic Polymers **(LO = 121)**	Denture Base Polymers **(LO = 122-125)**
Week -9	Denture base polymers **(LO = 126-129)**	Denture base polymers **(LO = 130-134)**	Denture base polymers **(LO = 135-137)**
Week -10	Denture base polymers **(LO = 138-140)**	Denture lining materials **(LO = 141-143)**	Denture lining materials **(LO = 144-146)**
Week -11	Denture lining materials **(LO = 147-150)**	Artificial Teeth **(LO = 151-152)**	Artificial Teeth **(LO = 153-154)**
Week –12	Revision	Revision	Revision
Week-13	**THEORY EXAMINATION**		
Week 14	**VIVA EXAMINATION**		

Weekly schedule of Module IV PHARMACOLOGY			
Week	**Lecture-1**	**Lecture-2**	**Lecture-3**
Week- 1	Scope of pharmacology/ Rational use of drugs **160, 174,175**	Preclinical and clinical trials **160**	Routes of administration of drugs **161,178**
Week- 2	Pharmacokinetic principles: Drug Absorption & Distribution **161**	Drug Metabolism & Excretion **161**	Pharmacodynamics Principles: Mechanism of action of drugs **161**
Week- 3	Pharmacodynamics Principles: Drug Response **161**	Adverse drug reactions **162**	Pharmacokinetic drug-drug interactions **162**
Week- 4	Pharmacodynamic drug-drug interactions **162**	Nonsteroidal anti-inflammatory drugs **163**	Nonsteroidal anti- inflammatory drugs **163**
Week- 5	Opioid analgesic drugs **164**	Opioid analgesic drugs **164**	Drug treatment of migraine **165**
Week- 6	Class Test **183,184**	Histamine and Antihistamine **172**	Drug treatment of Rheumatoid arthritis **166**
Week- 7	Drug treatment of acute and chronic gout **167**	Cholinoceptor activating drugs-1 **168**	Cholinoceptor activating drugs-2 **168**
Week- 8	Cholinoceptor blocking drugs-1 **169**	Cholinoceptor blocking drugs-2 **169**	Adrenoceptor activating drugs-1 **170**
Week- 9	Adrenoceptor activating drugs-2 **170**	Drug treatment of asthma **172**	Adrenoceptor blocking drugs-1 **171**
Week- 10	Adrenoceptor blocking drugs-2 **171**	Pharmacokinetics & pharmacodynamics of glucocorticoid **173**	Pharmacology of Autocoids **173**
Week- 11	Revision-Cholinergic agonist/antagonist	Revision Adrenergic agonist/antagonist	Revision AnaIgesics
Week-12	REVISION	REVISION	REVISION
Week -13	**Theory Examination**		
Week -14	**Viva Examination**		

Weekly schedule of Module IV DEPARTMENT OF PATHOLOGY		
Week no.	Lecture 1	Lecture 2
Week – 1	Adaptation 1 (LO=185)	Bacteria compared with other microorganisms(LO=191)
Week – 2	Adaptation 2(LO=185)	Structure of Bacteria-I(L0=192)
Week – 3	Mechanism of cell injury (LO=186-188)	Structure of Bacteria-II(LO=192)
Week – 4	Apoptosis 1(LO=190)	Classification of Bacteria(LO=193)
Week – 5	Apoptosis 2(LO=190)	Normal Flora of human body(LO=217)
Week – 6	Acute inflammation 1(LO=199)	Pathogenesis of Bacterial infection-I(LO=196)
Week – 7	Acute inflammation 2(LO=200)	Pathogenesis of Bacterial Infection-II(LO=196)
Week –8	Chemical mediators of inflammation(LO=201)	Laboratory Diagnosis(LO=217)
Week -9	Chronic inflammation(LO=204)	Antimicrobial Drugs(LO=210)
Week -10	Tissue repair and wound healing(LO=208)	Antimicrobial Vaccines(LO=212)
Week -11	Pathological aspects of repair(LO=209)	Sterilization and Disinfection(LO=213-214)
Week –12	REVISION	REVISION
Week-13	THEORY EXAMINATION	
Week-14	VIVA EXAMINATION	

Commencement of Module IV		Prosthodontics	
Activity	**Week**	**Laboratory Session**	**Tutorial Session**
Pre- Clinical Academic Session – BDS Second Professional	1.	Lab – Identify materials and equipment 254-256	Introduction of Prosthodontics Prosthodontics Terminologies 246
	2.	Mold pouring 268-269	Classification of partially dentate arch 247-248
	3.	Applied Anatomical Land mark Baseplate wax up demonstration 270-271,274,276-78	Introduction to edentulous state-consequences of tooth loss 250-251
	4.	Practice session -Baseplate wax up 276-78	Treating Prosthodontics patients-Prosthodontics treatment modalities 251-253,264
	5.	Baseplate Curing 276-78	Anatomic Landmarks- 1 270-271
	6.	Baseplate Finishing 276-78	Anatomic Landmarks- 2 270-271
	7.	Occlusal rims – Demonstration	Introduction, components & steps of CD 265-267
	8.	Occlusal rims – Laboratory work 281	Impressions for complete & partially dentate state 260-262,272
	9.	Programming of semi-adjustable articulator Occlusal rims – Laboratory work 282-283	Casts & Dies 257-259
	10.	Upper anterior tooth setup-demonstration 284-88	Record bases & occlusion rims 273,275
	11.	Laboratory Work	Articulators and articulation 279-80
	12.	Lower anterior setup-demonstration 289	Revision/Class Test/ Laboratory work
	13.	**Module Examination**	
	14.		

MODULE V

At the end of the module, students should be able to:

	COMMUNITY DENTISTRY	Teaching Method	Online Capacity	Assessment Mode
1.	Classify different levels of prevention	IL, SGD,	✓	BCQs, SEQs, Viva
2.	Discuss different strategies for the prevention of oral diseases	IL, SGD, PBL	✓	BCQs, SEQs, OSPE, , PBL,Viva,
3.	Describe the etiology and mechanism of dental caries	IL, SGD	✓	BCQs, SEQs, OSPE, Viva,
4.	Explain the role of different types of sugars along with their cariogenic potential	IL, SGD	✓	BCQs, SEQs, OSPE, Viva,
5.	Describe the significance of caries activity test in prevention of dental caries	IL,	✓	SEQs, Viva
6.	Describe the prevention of dental caries through vaccine	IL,	✓	, SEQs
7.	Specify the role of fluoride in prevention of dental caries	IL, SGD,	✓	SEQs, OSPE, Viva,
8.	Integrate the role of diet & plaque control in prevention of dental diseases	IL,	✓	BCQs, SEQs, Viva,
9.	Explain the role of fissure sealants and its application	SGD, VD, PBL, Practical, Skill Lab, OPD	✓	BCQs, SEQs, OSPE, PBL
10.	State the indication and contraindication of fissure sealants	IL, SGD, PBL,	✓	BCQs, SEQs, Viva,
11.	Define dental plaque	SGD	✓	SEQs,Viva
12.	Discuss the different methods of plaque control	IL, SGD, PBL, VD,OPD	✓	BCQs, SEQs, OSPE, PBL, Viva,
13.	Explain clinical approaches in the prevention of oral cancer	IL, SGD, PBL	✓	BCQs, SEQs, Viva, PBL
14.	Understand the metabolism, excretion and mechanism of action of fluoride	IL, SGD	✓	BCQs, SEQs, Viva,
15.	Describe different modes of fluoride intake	IL, SGD	✓	BCQs, SEQs,
16.	Describe the significance of each mode of fluoride intake	IL, SGD	✓	BCQs, SEQs, OSPE, Viva,
17.	Discuss toxicity of fluoride and methods of defluoridation.	IL, SGD	✓	BCQs, SEQs,

18.	Explain the key areas outline in Ottawa Charter along with its examples	IL, SGD, PBL,	✓	BCQs, SEQs, OSPE, PBL, Viva,
19.	Define health promotion	IL,	✓	SEQs, Viva,
20.	Discuss elements of health promotion	IL	✓	SEQs, Viva,
21.	Illustrate different approaches of health promotion	IL	✓	SEQs
22.	Recall the scientific basis of oral health education	IL	✓	SEQs, Viva,
23.	Recognize models of planning oral health education	IL	✓	SEQs, Viva,
24.	Explain different methods and materials of health education	IL	✓	SEQs, Viva,
25.	Define health behavior	IL	✓	SEQs,
26.	Enlist different theories of behavior change	IL, SGD,	✓	BCQs, SEQs, Viva,
27.	Describe the health behavior in view of different behavior models	IL,	✓	SEQs, Viva,
28.	Describe ART along with its significance	SGD	✓	SEQs, Viva,
29.	Describe different technique for the application of ART	SGD, VD,Skill Lab, OPD, FV	×	BCQs, SEQs, Viva, Skill Demonstration, logbook
30.	Enlist the indication and contraindications of ART	SGD	✓	BCQs, SEQs, Viva,
31.	Describe the components of healthcare delivery system	ISGD	✓	BCQs, SEQs, Viva
32.	Describe clinical governance	SGD,	✓	SEQs, Viva,
33.	Discuss the financing of oral healthcare	IL	✓	BCQs, SEQs, OSPE, Viva,
34.	Explain the principles of planning	IL	✓	BCQs, SEQs, OSPE, Viva,
35.	Recall the quality assurance cycle	IL	✓	SEQs, OSPE, Viva,
36.	Recognize the common problems associated with health care	SGD	✓	BCQs, SEQs,
37.	Discuss dental workforce and their role in dentistry	IL, SGD,PBL	✓	BCQs, SEQs, OSPE, Viva, PBL,
38.	Express dental care of patients with special needs, elderly, HIV/AIDS & children	IL	✓	BCQs, SEQs
39.	Define ethics and discuss the guidelines required in making a biomedical decision	IL, SGD, PBL	✓	BCQs, SEQs, Viva, OSPE, PBL
40.	Demonstrate the application of methods of plaque control	Skill Lab, VD	×	OSPE

	(tooth brushing Technqiues, flossing, mouth wasges and plaque disclosing agents)			
41.	Demonstrate the application of fissure sealant	Skills Lab, VD	×	OSPE
42.	Identify dental fluorosis	Practical	✓	OSPE
43.	Identify the different types of TDI in pictorial exercise	Practical	✓	OSPE
44.	Identify the different types of non-carious lesion in pictorial exercise	Practical	✓	OSPE
45.	Demonstrate topical fluoride application	Lab Skills, VD	×	OSPE
46.	Practice ART technique on phantom teeth	Lab Skills,VD	×	OSPE
47.	Data Collection	OPD, FV	✓	Assign
48.	Data Entry and Analysis	Lab Skills	✓	Assign
49.	Demonstrate skill in generating results for research	Lab Skills	✓	Assign
50.	Research Discussion write up	SGD	✓	Assign
51.	Planning and designing Dental Health Education material	SGD	✓	Assign
	PROFESSIONALISM			
52.	Understanding the concept of Professionalism	SGD	✓	BCQs, SEQs
53.	Explain the traits of professionalism	IL, SGD	✓	BCQs, SEQs
54.	Describe the dress code of a true professional	SGD	✓	BCQs, SEQs, OSPE
55.	Define Ethics	IL,PBL	✓	BCQs, SEQs, PBL, Viva
56.	Describe the principles of Ethics.	IL,PBL	✓	BCQs, SEQs, PBL, Viva
57.	Recognize the Ethical Standards required of every professional/student.	IL, SGD,PBL	✓	BCQs, SEQs, PBL, Viva
58.	Recognize the professional obligations required of a Dental student & Dentist?	IL, SGD,PBL	✓	BCQs, SEQs, PBL, Viva
	PATIENT SAFETY/ CROSS INFECTION			
59.	Recognize the routes of spread of infection in a dental setting?	IL,SGD	✓	BCQs, SEQs, Viva, OSCE
60.	Describe the measures through which Cross-infection can be prevented?	IL,SGD, Practical	✓	BCQs, SEQs, Viva, OSCE

61.	Define the following terms a. Standard Precautions b. Body Substance Isolation c. Bloodborne pathogen standard d. Cross infection control e. Standard infection control procedure	IL,SGD, Practical	✓	BCQs, SEQs, Viva, OSCE
62.	Understand the mode of spread of HIV, HCV and CPVID-19 infection?	IL,SGD	✓	BCQs, SEQs, Viva, OSCE
63.	Discuss different preventive measures of COVID-19	IL,SGD, Practical, PBL	✓	BCQs, SEQs, Viva, OSCE
64.	What disinfectants and sterilization procedures are used in dental setting?	IL,SGD, Practical, PBL	✓	BCQs, SEQs, Viva, OSCE
65.	Recognize the types of errors that can be encountered in a dental setting.	IL,SGD, Practical	✓	BCQs, SEQs, Viva, OSCE
66.	Describe occupational hazards, radiation & mercury protection	SGD,	✓	BCQs
67.	Enable logbook maintenance by acquisition of competency	SGD	✓	Assign
	SCIENCE OF DENTAL MATERIALS			
68.	Identify the process of casting as a means of shaping metal and alloys	IL	✓	BCQs, SEQs,VivaOSPE, Assign
69.	Give examples of cast restorations and prosthesis	IL	✓	BCQs, SEQs. OSPE, Assign
70.	State the components of an investment mould	IL	✓	BCQs, SEQs, OSPE, Assign
71.	Discuss the different types of casting machines	IL	✓	BCQs, SEQs, OSPE, quiz
72.	Enlist the most common faults which may occur in a casting	IL	✓	SEQs
73.	Discuss reasons for faults in casting	PBL	✓	BCQs, SEQs, OSPE, PBL
74.	Suggest ways to avoid such faults	IL	✓	SEQs, OSPE, Assign
75.	Outline the clinical applications of metal and alloys in dentistry	IL	✓	SEQs, Assign, Viva
76.	Discuss the shaping of metal and alloys through casting, cold working and amalgamation	IL	✓	BCQs, SEQs, OSPE, Viva
77.	Appreciate the crystalline structure of metals	IL	✓	SEQs, Viva, Assign
78.	Relate yield stress, dislocation and ductility/malleability	IL	✓	BCQs, SEQs,
79.	Discuss quenching and coring	IL	✓	BCQs, SEQs, Viva, Assign

80.	Explain cold working and its application in dentistry	IL	✓	SEQs, OSPE, Viva.
81.	Discuss the structure and properties of alloys	IL	✓	SEQs, OSPE, Viva.
82.	Explain cooling curves for metal and alloys	IL	✓	BCQs, SEQs, OSPE.
83.	Discuss the phase diagrams of solid-solution alloy	IL	✓	SEQs, OSPE
84.	Discuss eutectic phase diagrams	IL	✓	SEQs, OSPE
85.	Discuss properties and use of a eutectic alloy	IL	✓	BCQs, SEQs, Viva.
86.	Differentiate between noble and base metals	IL	✓	SEQs, Viva
87.	Enlist the properties of pure gold	IL	✓	SEQs, OSPE, Viva
88.	Discuss cold welding in relation to pure gold filling	IL, VD	✓	BCQs, SEQs, Viva
89.	Discuss advantages and disadvantages of pure gold filling	IL	✓	SEQs, Viva
90.	Discuss the composition, properties and clinical uses of different type of casting gold alloys	IL	✓	SEQs, OSPE, Viva, Assign
91.	Discuss hardening heat treatment	IL	✓	SEQs, Viva, Assign
92.	Differentiate between soldering and brazing	IL	✓	BCQs, SEQs
93.	Discuss the use of noble alloys in metal-bonded ceramic restorations	IL	✓	BCQs, SEQs
94.	Discuss the composition and properties of cobalt-chromium alloys and nickel chromium alloys	IL	✓	BCQs, SEQs, Viva,
95.	Discuss the manipulation of base metal casting alloys highlighting the fusion temperatures, mode of melting, type of investment material used, and methods of trimming and polishing	IL	✓	BCQs, SEQs, OSPE, Viva, Assign
96.	Discuss the process of electrolytic polishing	IL, VD	✓	SEQs, Viva
97.	Compare and contrast the properties of base metal casting alloys and castinggold alloys	IL	✓	BCQs, SEQs
98.	Correlate the clinical applications of base metal alloys with their properties	PBL	✓	BCQs, SEQs, Viva, PBL
99.	Discuss the types of base metal casting alloys for fixed restorations according to ISO standard	IL	✓	BCQs, SEQs, OSPE, Viva, Assign
100.	Discuss the biocompatibility of various constituents of base metal casting alloys	PBL	✓	PBL, BCQs, SEQs
101.	Discuss formation of a wrought alloy	IL	✓	BCQs, SEQs
102.	State the composition of Steel	IL	✓	BCQs, SEQs
103.	Explain the iron-carbon phase diagram	IL	✓	SEQs, Viva
104.	Identify the phases of cementite and ferrite and discuss their properties	IL	✓	SEQs, OSPE, Assign
105.	Explain the terms: austenite, cementite, ferrite, pearlite, eutectoid alloy, martensite, hypereutectoid alloy and hypoeutectoid alloy	IL	✓	BCQs, SEQs, Viva,
106.	Explain the hardening and tempering cycles of heat treatment done on steel	IL	✓	SEQs, Assign

107.	Differentiate between steel and stainless steel	IL	✓	BCQs, SEQs, OSPE, Viva, Assign
108.	Discuss properties and clinical uses of austenitic and martensitic stainless steel	IL	✓	BCQs, SEQs, OSPE, Viva, Assign, Ppt, Quiz
109.	Discuss advantages and disadvantages of stainless steel as a denture base	IL	✓	BCQs, SEQs, Viva
110.	Discuss the requirements of wire	IL	✓	SEQs, OSPE, Viva
111.	Explain the use of various materials for making wires	IL	✓	SEQs,Assign
112.	Develop skills at bending wire into alphabets and clasps	SD		PW
113.	State the composition of different types of dental ceramic	IL	✓	SEQs, Assign
114.	State the uses of dental porcelain	IL	✓	BCQs, SEQs, Viva
115.	Explain the manipulation of porcelain with respect to its compaction, firing and glazing	IL, VD	✓	BCQs, SEQs, Assign
116.	Enlist the properties of porcelain	IL	✓	SEQs, Viva, Assign
117.	Discuss aluminous porcelain	IL	✓	BCQs, SEQs, Viva,
118.	Explain the formation of sintered alumina core ceramics	IL	✓	SEQs, Viva, Assign
119.	Discuss injection molded and pressed ceramics	IL	✓	SEQs, Viva, Assign
120.	Discuss cast glass and polycrystalline ceramics	IL	✓	BCQs, SEQs, Assign
121.	Discuss the advantages of CAD-CAM restorations	IL, VD	✓	BCQs, SEQs, OSPE, Viva
122.	Discuss porcelain veneers and alternate materials available for veneers	IL	✓	BCQs, SEQs, OSPE, Viva, Assign
123.	Discuss porcelain fused to metal restorations highlighting the requirements for alloys available for porcelain bonding	PBL	✓	BCQs, SEQs, PBL
124.	Compare the properties of different types of alloy used in PFM	IL	✓	Viva, Assign
125.	Classify impression materials on the basis of viscosity and elastic properties	IL, SGD	✓	BCQs, SEQs, OSPE, Viva, Assign, Quiz, Ppt
126.	Classify impression materials on the basis of viscosity and elastic properties	IL	✓	SEQs, OSPE, Viva
127.	Discuss the ideal requirements of impression materials	IL	✓	SEQs, OSPE, Viva, Assign, Quiz, Ppt
128.	Define the terms: elastic, non-elastic/rigid and viscoelastic	IL	✓	SEQs, OSPE, Viva, CQ
129.	Discuss clinical considerations (choice of material, trays, tissue management, technique, cross infection control).	IL	✓	SEQs, OSPE, Viva,
130.	Classify impression trays	IL, SD	✓	BCQs, SEQs, Viva

131.	Discuss the use of tray adhesives	IL	✓	BCQs, SEQs
132.	Discuss impression techniques.	IL, SD	✓	BCQs, SEQs, OSPE, Viva, Assign, Quiz
133.	Discuss infection control	IL	✓	SEQs, OSPE, Viva
134.	Classify non- elastic impression materials.	IL	✓	BCQs, SEQs, Viva
135.	Discuss composition, manipulation, setting reaction, properties and uses of impression plaster, impression compound ,impression waxes and zinc oxide	IL, SD	✓	BCQs, SEQs,Viva
136.	Classify elastic impression materials.	IL	✓	BCQs, SEQs, OSPE
137.	Differentiate between sol and gel forms	IL	✓	SEQs
138.	Discuss reversible hydrocolloids with respect to their composition, type's properties, handling and uses.	IL	✓	BCQs, SEQs, OSPE, Viva, Assign, Quiz
139.	Discuss irreversible hydrocolloids with respect to their composition, properties, handling and uses	IL, SD	✓	BCQs, SEQs, Viva, PW
140.	Discuss their advantages and disadvantages	IL	✓	SEQs
141.	Define modified alginate	IL	✓	SEQs, OSPE, Viva
142.	State methods for disinfection of alginate impression	IL	✓	BCQs, SEQs
143.	Discuss the making of an alginate impression through video demonstration	IL, VD, SD	✓	PW
144.	Enlist the types of synthetic elastomers	IL	✓	SEQs, OSPE
145.	Classify synthetic elastomers according to consistency	IL	✓	SEQs, OSPE, Viva
146.	Discuss their composition ,properties, handling, setting reaction and clinical uses	IL	✓	BCQs, SEQs, Viva,
147.	Compare and contrast their properties, advantages and disadvantages.	IL	✓	BCQs, SEQs, CQ
148.	State methods for disinfection of each type	IL	✓	BCQs, SEQs, OSPE
149.	Discuss the process for a putty wash type impression through video demonstration	VD	✓	PW
	PROFESSIONALISM/PRINCIPLES OF ETHICS			
150.	Discuss the ideal requirements of impression materials	IL	✓	Presentation
151.	Outline the clinical applications of metal and alloys in dentistry	IL	✓	Group Presentations
152.	**PATIENT SAFTEY**			
153.	Discuss various clinical considerations.	IL	✓	SEQs, OSPE, Viva,
154.	Discuss infection control	IL	✓	SEQs, OSPE, Viva
155.	State methods for disinfection of each elastomers	IL	✓	BCQs, SEQs, OSPE
	COMMUNICATION SKILLS			

156.	Correlate the clinical applications of base metal alloys with their properties	PBL	✓	BCQs, SEQs, Viva, PBL
	PHARMACOLOGY			
157.	Describe oral anticoagulants	IL	✓	BCQs, SEQs, Viva
158.	Describe thrombolytic and antiplatelet drugs	IL	✓	BCQs, SEQs, Viva
159.	Explain the pharmacology of coagulants	IL	✓	BCQs, SEQs, Viva
160.	Describe the pharmacodynamic and pharmacokinetics of drugs used in anemias	SGD	✓	BCQs, SEQs, Viva
161.	Describe the pharmacology of antihyperlipidemic drugs	IL, SGD,PBL, Assign	✓	BCQs, SEQs, Viva
162.	Classify penicillin's on the basis of their clinical spectrum	IL, SGD	✓	BCQs, SEQs, Viva
163.	Compare the pharmacological properties of penicillin's	IL, SGD	✓	BCQs, SEQs, Viva
164.	Describe the pharmacokinetics and pharmacodynamic of cephalosporin's	IL	✓	BCQs, SEQs, Viva
165.	Explain the clinical uses and adverse effects of carbapanems&monobactams BCQs, SEQs, Viva	SGD	✓	BCQs, SEQs, Viva
166.	Explain the mechanism of action, clinical uses and adverse effects of vancomycin	SGD	✓	BCQs, SEQs, Viva
167.	Describe the pharmacokinetic properties, mechanism, clinical uses and adverse effects of tetracycline's	IL, SGD	✓	BCQs, SEQs, Viva
168.	Describe the pharmacokinetic properties, mechanism, clinical uses and adverse effects of aminoglycosides	IL	✓	BCQs, SEQs, Viva
169.	Describe the pharmacokinetic properties, mechanism, clinical uses and adverse effects of macrolides	IL	✓	BCQs, SEQs, Viva
170.	Describe the pharmacokinetic properties, mechanism, clinical uses and adverse effects of chloramphenicol	IL	✓	BCQs, SEQs, Viva
171.	Describe the pharmacokinetic properties, mechanism, clinical uses and adverse effects of clindamycin	IL	✓	BCQs, SEQs, Viva
172.	Describe the pharmacokinetic and dynamic properties of sulfonamides	IL	✓	BCQs, SEQs, Viva
173.	Describe the pharmacokinetic and dynamic properties of fluoroquinolones	IL	✓	BCQs, SEQs, Viva
174.	Explain the first line drug therapy for tuberculosis	IL, SGD	✓	BCQs, SEQs, Viva
175.	Explain the 2nd line drug therapy for tuberculosis	SGD	✓	BCQs, SEQs, Viva
176.	Describe the mechanism of action, clinical uses and adverse effects of various types of antiviral drugs	IL	✓	BCQs, SEQs, Viva
177.	Classify anticancer drugs based on cell cycle specificity	IL	✓	BCQs, SEQs, Viva
178.	Describe mechanism of action and adverse effects of anticancer drugs	IL, SGD	✓	BCQs, SEQs, Viva
179.	Describe mechanism of resistance to anticancer drugs	IL, SGD	✓	BCQs, SEQs, Viva
180.	Describe pharmacology of emetics and antiemetic drugs	IL	✓	BCQs, SEQs, Viva
181.	Describe the drug treatment of acid peptic disease	IL, SGD	✓	BCQs, SEQs, Viva

182.	Describe the pharmacology of purgatives and anti-diarrheal drugs	IL	✓	BCQs, SEQs, Viva
183.	Prepare dilutions from 1mg of the given drug having strength of 10^{-3} up to 10^{-8}	Lab Skills		OSPE
184.	Interpret the effect of antibiotic drugs on bacterial colonies	Lab Skills	✓	OSPE
185.	Interpret the effects of given drugs on the eyes of rabbit	Lab Skills		OSPE
186.	Interpret the effects of agonist and antagonist drugs on the eyes of rabbit	Lab Skills		OSPE
187.	Identify the parts of kymograph and organ bath assembly	Lab Skills	✓	OSPE
188.	Interpret the effects of different dilutions of a given drug on an isolated piece of rabbit intestine. (Drug-A)	Lab Skills		OSPE
189.	Interpret the effects of different dilutions of a given drug on an isolated piece of rabbit intestine. (Drug-B)	Lab Skills		OSPE
	PATHOLOGY			
190.	Compare the pathophysiologic categories of edema on the basis of underlying mechanism and clinical features.	ILD/SGDD		BCQ/SEQ
191.	Relate the abnormalities of normal hemostasis with the development of thrombosis and its clinical consequences.	SGDD		SEQ/BCQ
192.	Compare different types of emboli on the basis of underlying cause and clinical presentation.	ILD/SGDD		BCQ
193.	Differentiate between the various types of infarcts according to the mechanism of development, morphological features and clinical consequences.	ILD/SGDD		SEQ/BCQ
194.	Describe the types of shock as regards to their etiology, pathogenesis and management.	ILD/SGDD		BCQ/SEQ/AS
195.	Describe the nomenclature, characteristics and classification of tumors	ILD/SGDD		BCQ
196.	Classify tumors according to tissue of origin and clinical behavior.	ILD/SGDD	✓	SEQ/BCQ
197.	Compare benign and malignant tumors tumors on the basis of their morphological characteristics and clinical behavior.	SGDD	✓	BCQ
198.	Discuss the molecular basis of carcinogenesis with special emphasis on proto oncogene, oncogene and tumor suppressor genes.	ILD/SGDD		BCQ/SEQ
199.	Explain the clinical effects of tumors on the basis of size, site and syndromes they produce.	ILD/SGDD		OSCE
200.	Explain the effects of physical, chemical and viral carcinogen and relate them to tumorigenesis	ILD/SGDD	✓	BCQ/AS/SEQ
201.	Comprehend the role of genetic alterations in carcinogenesis.	ILD/SGDD		BCQ/AS
202.	Describe the significance of tumor markers in the diagnosis and management of cancers	ILD/SGDD	✓	BCQ/SEQ
203.	Describe the structure and clinical manifestations of human immunodeficiency virus	ILD/SGDD		BCQ
204.	Describe the pathogenesis, clinical presentation and diagnosis of mycobacterium.	ILD/SGDD	✓	OSCE
205.	Explain the overview of Gram negative rods and discuss the pathogenesis and clinical presentation of E coli.	ILD/SGDD		BCQ
206.	Describe the pathogenesis, clinical presentation and diagnosis of vibrio cholera.	ILD/SGDD		SEQ/BCQ
207.	Discuss different biochemical test for identification of Gram negative rods.	ILD/SGDD		BCQ

208.	Explain the role of pathogens to cause infection in hospitalized patients.	ILD/SG DD		SEQ/BCQ
209.	Describe the pathogenesis, clinical presentation and diagnosis of Pseudomonas aeruginosa.	ILD/SG DD		BCQ
210.	Correlate the clinical presentation of spirochetes with lab diagnosis.	ILD/SG DD		BCQ
211.	Describe the role of intracellular bacteria in causing a disease.	ILD/SG DD		SEQ/BCQ
212.	Discuss the pathogenesis, clinical presentation and diagnosis of mycoplasma and actinomyces.	ILD/SG DD		BCQ/SEQ
213.	Comprehend the role of respiratory Gram negative rods to cause various pulmonary diseases.	ILD/SG DD/PBL		BCQ/SEQ
214.	Discuss the pathogenesis and clinical presentation of zoonotic organisms	ILD/SG DD		BCQ
215.	Discuss structure and classification of viruses	SGDD		BCQ/AS
216.	Discuss the effectiveness of viral vaccine.	ILD/SG DD		BCQ
217.	Discuss the role of herpes simplex 1 & 2 & varicella zoster virus as contagious diseases.	ILD/SG DD		BCQ/SEQ
218.	Discuss the pathogenesis, clinical presentation and diagnosis of cytomegalo virus and Ebstein bar virus.	ILD/SG DD		BCQ/SEQ
219.	Discuss the pathogenesis, clinical presentation and diagnosis of measles and mumps.	ILD/SG DD		OSCE/BCQ
220.	Explain the different types of influenza virus and its preventive strategies.	ILD/SG DD		BCQ/SEQ
221.	Correlate the pathogenesis of rabies and rubella with their clinical presentation.	ILD/SG DD		SEQ/BCQ
222.	Describe different types of hepatitis (A, B and C) and their pathogenesis.	ILD/SG DD		BCQ
223.	Correlate the pathogenesis of HIV with its clinical presentation and lab diagnosis.	ILD/SG DD		SEQ/BCQ
224.	Identify histopathological features of Keloid	ILD/SG DD		BCQ
225.	Identify histopathological features of Leiomyoma (uterus)	LAB SKILLS		OSCE/VIVA
226.	Identify histopathological features of Follicular adenoma (thyroid)	LAB SKILLS		OSCE/VIVA
227.	Identify histopathological features of Fibroadenoma (Breast)	LAB SKILLS		OSCE/VIVA
228.	Identify histopathological features of granulation tissue	LAB SKILLS		OSCE/VIVA
229.	Identify histopathological features of Lipoma	LAB SKILLS		OSCE/VIVA
230.	Identify histopathological features of thrombus	LAB SKILLS		OSCE/VIVA
231.	Identify gross morphological features of follicular adenoma (thyroid)	LAB SKILLS		OSCE/VIVA
232.	Identify gross morphological features of fibroadenoma breast	LAB SKILLS		OSCE/VIVA
233.	Identify gross morphological features of lipoma	LAB SKILLS		OSCE/VIVA

234.	Identify gross morphological features of Leiomyoma (uterus)	LAB SKILLS		OSCE/VIVA
235.	Identify histopathological features of liposarcoma	LAB SKILLS		OSCE/VIVA
236.	Identify histopathological features of leiomyosarcoma	LAB SKILLS		OSCE/VIVA
237.	Identify histopathological features of adenocarcinoma stomach and Ductal carcinoma of breast	LAB SKILLS		OSCE/VIVA
238.	Discuss the pathogenesis and lab diagnosis of Staphylococcus aureus	LAB SKILLS		OSCE/VIVA
239.	Discuss the pathogenesis and lab diagnosis of Streptococcus species	LAB SKILLS		OSCE/VIVA
240.	Discuss the pathogenesis and lab diagnosis of Salmonella species.	LAB SKILLS		OSCE/VIVA
241.	Study the procedure of Zeihl Neelson staining and observe acid fast bacilli under microscope	LAB SKILLS		OSCE/VIVA
242.	Discuss the pathogenesis and lab diagnosis of Hepatitis B virus.	LAB SKILLS		OSCE/VIVA
243.	Study Escherichia coli and laboratory investigations its identification	LAB SKILLS		OSCE/VIVA
244.	Study HIV laboratory diagnosis.	LAB SKILLS		OSCE/VIVA
245.	Compare the pathophysiologic categories of edema on the basis of underlying mechanism and clinical features.	LAB SKILLS		OSCE/VIVA
	PRECLINICS-PROSTHODONTICS			
246.	Orient the posterior teeth according to five planes in occlusal rims	PW		OSPE
247.	Define the compensating curves.	SGD	✓	SEQ/VIVA
248.	Define balanced occlusion and articulation.	SGD	✓	SEQ/VIVA
249.	Perform final esthetic wax up of complete denture.	PW		OSPE
250.	Achieve bilateral occlusal contacts in centric relation according to BULL's rule on the articulator.	PW		OSPE
251.	Identify the components of the flask.	PW		OSPE
252.	Invest removable partial and fixed prosthesis by soft plaster using open technique in a flask	PW		OSPE
253.	Enumerate the principles of flasking.	SGD	✓	SEQ/BCQ
254.	Understand the use of separating media during investment procedure.	PW		SEQ/BCQ
255.	Perform dewaxing of the investment mould completely using curing pots.	PW		OSPE
256.	Apply cold mould seal without pooling of liquid in the investment mould.	PW		OSPE
257.	Identify the stages of heat cure acrylic resin setting.	PW		OSPE

258.	Pack the mould with acrylic resin at appropriate setting stage.	PW		OSPE
259.	Undertake three trial closures before curing commences using hydraulic and manual press	PW		OSPE
260.	Describe different curing cycles for heat cure acrylic resin.	SGD	✓	SEQ/VIVA
261.	Cure the removable prosthesis using curing pots.	PW		OSPE
262.	Invest the prosthesis without its breakage.	PW		OSPE
263.	Finish and polish the prosthesis.	PW		OSPE
264.	Assort the finishing materials in sequence	PW		OSPE
265.	Sort the steps of finishing of acrylic prosthesis	PW		OSPE
266.	Elucidate the finishing and polishing materials for acrylic prosthesis.	SGD		SEQ/BCQ
267.	Balance occlusion using BULL's rule by using proper armamentarium and technique	PW		OSPE
268.	Justify the prescription of removable partial denture in a patient.	SGD		BCQ/VIVA
269.	Classify removable partial dentures according to support.	SGD		BCQ/VIVA
270.	Enumerate the types of removable partial dentures on the basis of material, uses and clinical requirements.	SGD		BCQ/VIVA
271.	Outline different components of removable partial dentures with their basic functions	SGD		BCQ/VIVA
272.	List the uses of interim removable partial dentures.	SGD		BCQ/VIVA
273.	Justify the prescription of interim removable partial dentures.	SGD		BCQ/VIVA
274.	Outline clinical and laboratory procedures for interim removable partial dentures.	SGD		BCQ/VIVA
275.	Outline clinical and laboratory steps of fabrication for cast partial dentures.	SGD		VIVA
276.	Identify different stages of laboratory procedures	PW		OSPE
277.	Sort laboratory procedures in the proper sequence	PW		OSPE
278.	Classify crowns.	SGD		SEQ/OSPE
279.	Select appropriate crown material and crown type for a given case.	SGD		OSPE
280.	Classify fixed partial dentures.	SGD		VIVA
281.	Identify components.	SGD		VIVA

282.	Select appropriate type of FPD for a given patient.	SGD		VIVA
283.	Apply material science in association to FPDs.	SGD		VIVA

BEHAVIORAL SCIENCE TOPICS INTEGRATION WITH OTHER DEPARTMENT	**LO NUMBER**
Community Dentistry	155-159
Dental Material	150-156

Weekly schedule of Module V Community and Preventive Dentistry		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Levels of prevention/ Ottawa charter L.O (1-2)	Prevention of dental caries L.O (3-7 & 9)
Week – 2	Prevention of periodontal disease L.O (8,11-12)	Prevention of oral cancer L.O (13)
Week – 3	Role of Flouride I L.O (14-15)	Role of Flouride II L.O (16-17)
Week – 4	Principles of Oral health promotion L.O (18-21)	Fissure Sealant and ART L.O (10, 28-30)
Week – 5	Health education L.O (22-24)	Behavior change L.O (25-27)
Week – 6	**Students competition**	
Week – 7	**Class test**	Health care systems of Pakistan L.O (31 -32)
Week –8	Principles of planning L.O (34-35)	Problems of the health care systems L.O (36)
Week -9	Financing/ economics of dental care L.O (33)	Dental workforce L.O (37)
Week -10	Ethics in dentistry L.O (39, 52-55)	Infection control L.O (56-63)
Week -11	Oral health care for special need (38) L.O	Professionalism in Dentistry LO (49-51)
Week –12	**REVISION**	**REVISION**
Week –13	THEORY EXAMINATION	
Week-14	VIVA EXAMINATION	

Weekly schedule of Module V Science of Dental Materials			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Metal and Alloys **(LO=75-78)**	Metal and Alloys **(LO=79-81)**	Metal and Alloys **(LO=82-85)**
Week – 2	Gold and Alloys of Nobel metal **(LO=86-87)**	Gold and Alloys of Nobel metal **(LO=88-89)**	Gold and Alloys of Nobel metal **(LO=90-91)**
Week – 3	Gold and Alloys of Nobel metal **(LO=92)**	Base metal casting alloys **(LO=93-96)**	Base metal casting alloys **(LO=97-100)**
Week – 4	Steel and wrought alloys **(LO=101-112)**	Casting **(LO=68-71)**	Casting **(LO=72-74)**
Week – 5	Requirements of impression materials **(LO=125-129)**	Requirements of impression materials **(LO=130-133)**	Non- Elastic impression materials **(LO=134)**
Week – 6	Non- Elastic impression materials **(LO=134)**	Non- Elastic impression materials **(LO=135)**	**TEST** **(LO=75-135)**
Week – 7	Elastic impression materials **(LO=136)**	Elastic impression materials **(LO=137)**	Elastic impression materials **(LO=138-139)**
Week –8	Elastic impression materials **(LO=140-141)**	Elastic impression materials **(LO=142)**	Elastic impression materials **(LO=143)**
Week -9	Synthetic Elastomers **(LO=144-147)**	Synthetic Elastomers **(LO=148-150)**	Synthetic Elastomers **(LO=151-156)**
Week -10	Ceramics **(LO=113-116)**	Ceramics **(LO=117-120)**	Ceramics **(LO=121-124)**
Week -11	Revision	Revision	Revision
Week –12	Revision	Revision	Revision
Week-13	**Theory Examination**		
Week-14	**Viva Examination**		

Weekly schedule of Module V PHARMACOLOGY			
Week Number	**Lecture 1**	**Lecture2**	**Lecture 3**
Week- 1	Diuretics-1 **159**	Diuretics-2 **159**	Antihypertensive drugs-1 **159**
Week- 2	Antihypertensive drugs-2 **159**	Drugs used in CCF **159**	Antiarrythmic drugs-1 **159**
Week- 3	Antiarrythmic drugs-2 **159**	Antiarrythmic drugs-3 **159**	Antianginal drugs **159**
Week- 4	Antihyperlipidemic **161**	Drugs used to treat anemia **160**	Parenteral anticoagulants **157**
Week- 5	Oral anticoagulants **157**	Thrombolytic & Antiplatelet **158**	Coagulants **157**
Week- 6	CLASS TEST	Penicillins **162, 163**	Cephalosporin **164**
Week- 7	Tetracyclines **167**	Aminoglycosides **168**	Macrolides **169**
Week- 8	Chloramphenicol **170**	Clindamycin **171**	sulfonamides **172**
Week- 9	Fluoroquinolones **173**	Antituberculous drugs (1st Line) **174**	Antituberculous drugs (1st Line) **175**
Week- 10	Anticancer-1 **178**	Anticancer-2 **179**	Emetics and Antiemetics **180**
Week- 11	Drug treatment of peptic ulcer **181**	Antidiarrheal drugs and purgatives **182**	Antiviral drugs **176**
Week-12	REVISION CVS Drugs	REVISION Chemotherapy	REVISION
Week-13	Theory Examination		
Week -14	Viva Examination		

Weekly schedule of Module V DEPARTMENT OF PATHOLOGY		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Thrombosis(LO=195)	Gram Positive cocci and Staphylococcus (LO=192)
Week – 2	Thrombosis 2 (LO=195)	Streptococcal Infections (LO=193)
Week – 3	Embolism (LO=195)	Spores, resistance and incubation; Clostridium Species (LO=199)
Week – 4	Infarction (LO=186)	Classification of spore forming and Non Spore Forming Bacteria; Diphtheria (LO=200)
Week – 5	Shock (LO=204)	Gram Neg Rods and Lactose fermenting Rods; Features and Pathogenesis E.Coli (LO=203)
Week – 6	Nomenclature of neoplasia (LO=205-206)	Salmonella (LO=208)
Week – 7	Characteristics of benign and malignant Tumors (LO=205,206,209)	Pseudomonas (LO=210)
Week –8	Carcinogenesis(LO=212)	Basic Structure and classification of medically important viruses (LO=214)
Week -9	Tumor immunity(LO=215)	Influenza Virus (LO=216)
Week -10	Clinical features of tumor (LO=205)	Viral Hepatitis (LO=218,219,220)
Week -11	Tumor marker (LO=224)	HIV (LO=222)
Week –12	REVISION	REVISION
Week-13	**Theory Examination**	
Week-14	**Viva Examination**	

Commencement of Module V		Prosthodontics	
Activity	**Week**	**Laboratory Session**	**Tutorial Session**
Pre- Clinical Academic Session – BDS Second Professional	1.	Posterior Teeth maxillary setup- Demonstration 246,250	Introduction to basic concepts of occlusion 247-48
	2.	Laboratory work	Artificial teeth- types & selection guideline 283
	3.	Posterior Teeth mandibular setup- Demonstration 246,250	Relationship of teeth to cast 286
	4.	Laboratory work	Complete denture occlusion 232,234
	5.	Final wax up (Carving and Festooning)- Demonstration 249	Investment, packing and curing 251-262
	6.	Final waxup (Carving and Festooning)- Laboratory work	Finishing and Polishing Protocols 263-266
	7.	Investment, Packing and curing- Demonstration 251,252,255-59,261-262	Introduction to removable partial dentures- components 252-55
	8.	Investment, Packing and curing- Laboratory work	Interim removable partial dentures 269-74
	9.	Finishing and Polishing- Demonstration 263	Fabrication of cast partial dentures – Demonstration 275-77
	10.	Finishing and Polishing- Laboratory work	Introduction to Fixed partial dentures 278-282
	11.	High spots Grinding- Demonstration 267	Revision/ Class test
	12.	Laboratory work	Laboratory work
	13.	**Module Examination**	
	14.		

MODULE VI

	COMMUNITY DENTISTRY	Teaching Method	Online Learning	Assessment Mode
1.	Define sociology	IL	✓	SEQs, Viva,
2.	Discuss structural & functional aspects of society	IL	✓	BCQs
3.	Explain role of social sciences	IL	✓	BCQs, SEQs
4.	Identify determinants of health behavior	IL	✓	BCQs, SEQs, Viva,
5.	Explain Stress along with its manifestations	ILPBL	✓	BCQs, SEQs, Viva, PBL
6.	Describe Anxiety along with its manifestations	IL,PBL	✓	BCQs, SEQs, Viva, PBL
7.	Understand the reasons and phases in delay in seeking help	IL	✓	BCQs, SEQs, OSPE, Viva
8.	Describe child psychology	IL	✓	BCQs, SEQs,
9.	Explain psychodynamic and psychoanalytical theories	IL	✓	BCQs, SEQs, Viva
10.	Explain different behavior management techniques	IL,PBL	✓	BCQs, SEQs, OSPE, Viva, PBL
11.	Define statistics and biostatistics	IL,	✓	BCQs, SEQs, OSPE, Viva
12.	List types of variables	IL,	✓	BCQs, SEQs, OSPE, Viva,
13.	Formulate hypothesis and questionnaire using PICO	SGD	✓	Assign
14.	Describe measures of central tendency	IL	✓	BCQs, SEQs, Viva,
15.	Describe measures of dispersion	IL	✓	BCQs, SEQs, Viva,
16.	Understand tests of significance	IL	✓	BCQs, SEQs, Viva,
17.	Describe frequency distribution	IL	✓	BCQs, SEQs, OSPE, Viva,
18.	Explain the concept of sampling error and types of error	IL,	✓	BCQs
19.	Describe confidence interval and probability	IL,	✓	BCQs, SEQs, Viva,

20.	Conducting Dental health education Promotion program	FV	×	Assign
21.	Evaluating Dental Health education promotion program	FV	×	Assign
22.	Discussion Writing and Submission	SGD	✓	Assign
	DENTIST-PATIENT COMMUNICATION			
23.	Recognize the dentist-patient communication and its benefits	IL		BCQs, SEQs, OSPE, Viva
24.	Discuss why good communication is important	IL		BCQs, SEQs, OSPE, Viva
25.	Explain the impact of good communication on patient's compliance	IL, PBL		BCQs, SEQs, OSPE, Viva, PBL
26.	Explain the impact of good communication on patient's anxiety reduction	IL, PBL		BCQs, SEQs, OSPE, Viva, PBL
27.	Explain the impact of good communication on patient's treatment outcome	IL, PBL		BCQs, SEQs, OSPE, Viva, PBL
28.	Discuss different models of dentist patient communication	IL		BCQs, SEQs, OSPE, Viva
29.	Describe the 3 different components of interpersonal communication (verbal , paralinguistic and non-verbal)	IL		BCQs, SEQs, OSPE, Viva
30.	Identify different zones of interaction in workplace	IL		BCQs, SEQs, OSPE, Viva
31.	Identify key skills of communication (active listening, information giving, positive negative talk, partnership, social conversation, art of listening & questioning, counseling,)	IL		BCQs, SEQs, OSPE, Viva
32.	Discuss dentist patient communication during examination and treatment	SGD		BCQs, SEQs, OSPE, Viva
33.	Discuss how to deal a crises and conflict situations in health setup	IL		BCQs, SEQs, OSPE, Viva
34.	Explain the use of informational care in a health setup	IL		BCQs, SEQs, OSPE, Viva
35.	Evaluate structure process and outcome of a good patient dentist communication setup	IL		BCQs, SEQs, OSPE, Viva
	SCIENCE OF DENTAL MATERIALS			
36.	Differentiate between direct and indirect restorations and give examples	IL	✓	BCQs, SEQs,Viva OSPE
37.	Enumerate the requirements of direct filling materials	IL	✓	SEQs
38.	Discuss composition of dental amalgam	IL	✓	BCQs, SEQs, Viva
39.	Classify dental amalgam on basis of copper content, zinc content, shape of the alloy particle, number of alloy metals, and size of alloy	IL	✓	BCQs, SEQs, OSPE, CQ
40.	Discuss manufacture of alloy powder	IL	✓	SEQs, Assign
41.	Differentiate between amalgamation and trituration	IL	✓	BCQs, SEQs, OSPE, Assign
42.	Explain the setting reaction of amalgam (ϒ phases).	IL	✓	BCQs, SEQs, Assign, Viva
43.	Enlist the properties of amalgam.	PBL	✓	BCQs, SEQs, Viva, PBL

44.	Define creep, tarnish and corrosion	PBL	✓	SEQs, OSPE, PBL, Viva
45.	Discuss clinical handling of dental amalgam	IL	✓	BCQs, SEQs, OSPE, Viva
46.	Discuss its manipulative variables including selection of materials, proportioning and dispensing, trituration , mulling , condensation, shaping and finishing	IL, VD	✓	BCQs, SEQs, OSPE, Viva
47.	Discuss zinc free alloys	IL	✓	SEQs, Viva
48.	Outline uses of dental amalgam	PBL	✓	BCQs, SEQs, OSPE, Viva, PBL
49.	Compare dental amalgam with composite restorative materials	IL	✓	BCQs, SEQs, Viva
50.	Discuss 'amalgam controversy'	IL	✓	SEQs
51.	Discuss the previous use of silicate and acrylic resin as permanent filling materials	IL	✓	BCQs, SEQs, Viva
52.	State the classification of composite resin according to the type of monomer, filler size and content, modes of activation and viscosity	IL	✓	BCQs, SEQs, Viva
53.	State the composition, properties and use of self-cured composite	IL	✓	BCQs, SEQs
54.	State the composition, properties and use of light activated composite resin	IL	✓	BCQs, SEQs, Viva, Assign
55.	Discuss the different light systems used for activation of composite resin	IL	✓	SEQs
56.	Discuss the various types of composites based on filler content and size	IL	✓	SEQs, OSPE
57.	Discuss the effect of filler size and content on properties of composite	IL	✓	BCQs, SEQs, OSPE, Viva.
58.	Discuss the clinical application of various types of composite resin	IL	✓	BCQs, SEQs, OSPE, Viva.
59.	Explain the properties of resin based composites including biocompatibility, setting characteristics, polymerization shrinkage ,thermal properties, mechanical properties, surface hardness ,appearance, adhesion/bonding	PBL	✓	BCQs, SEQs, OSPE, Viva, PBL, Assign
60.	Discuss factors affecting depth of cure	IL	✓	BCQs, SEQs, Viva
61.	Discuss compensation for polymerisation shrinkage	IL	✓	BCQs, SEQs, OSPE, Viva
62.	Describe C-factor	IL	✓	BCQs, SEQs, PBL, Viva
63.	Discuss fiber reinforcement of composite structures and their use	IL	✓	BCQs, SEQs, Viva.
64.	Differentiate between finishing and polishing	IL	✓	BCQs
65.	Discuss the benefits of finishing and polishing	IL	✓	BCQs, SEQs
66.	Discuss instruments used for finishing and polishing of composite restorations Enlist types of abrasives	IL	✓	BCQs, SEQs, OSPE, Viva.
67.	Discuss immediate and delayed finishing	IL	✓	BCQs, SEQs
68.	Discuss variables which may affect the finishing and polishing of composite restoration	IL	✓	BCQs, SEQs, Viva
69.	Understand manipulation of light-cured composites through a video demonstration	VD	✓	PW

70.	Briefly discuss acid etch systems.	IL	✓	BCQs, SEQs, OSPE, Viva, Assign
71.	Describe enamel etching.	IL	✓	BCQs, SEQs, OSPE, Viva
72.	Explain applications of acid etch technique.	IL	✓	SEQs, OSPE, Viva.
73.	Explain dentine bonding.	IL	✓	BCQs, SEQs, OSPE, Viva.
74.	Explain hybrid layer.	IL	✓	BCQs, SEQs, Viva.
75.	Define smear layer.	IL	✓	SEQs, Viva.
76.	Understand chemical structure of enamel and dentine.	IL	✓	BCQs, SEQs, Viva
77.	Differentiate between primer and bonding agent.	IL	✓	BCQs, SEQs, OSPE
78.	Discuss the generations of bonding systems	IL	✓	BCQs, SEQs, Viva
79.	Compare and contrast total etch method and self-etching primer method	IL	✓	BCQs, SEQs
80.	Discuss dry and wet bonding	IL	✓	BCQs, SEQs, OSPE
81.	Understand and discuss bonding to alloys, amalgam and ceramics.	IL	✓	BCQs, SEQs
82.	Briefly discuss bond strength resin with enamel and dentine	IL	✓	BCQs, SEQs, Viva.
83.	Enlist the composition of conventional glass ionomer restorative material	IL	✓	BCQs, SEQs
84.	Discuss its the setting reaction ,properties and uses	IL	✓	BCQs, SEQs, Viva
85.	Discuss Cermets.	IL	✓	BCQs, SEQs, Viva
86.	Discuss the sandwich technique and its applications.	IL	✓	BCQs, SEQs, Viva
87.	Discuss ART	IL	✓	BCQs, SEQs, Viva
88.	Compare glass ionomers with composite restorative materials	IL	✓	BCQs, SEQs, Viva
89.	Discuss resin modified glass ionomers.	IL	✓	BCQs, SEQs
90.	Enlist its composition and properties.	IL	✓	SEQs, CQ
91.	Outline their clinical applications and handling	IL, VD	✓	BCQs, SEQs
92.	Discuss giomers and compomers	IL	✓	BCQs, SEQs, CQ, Viva
93.	Compare and contrast conventional glass ionomers with resin modified	IL	✓	SEQs, OSPE, Viva
94.	Explain the need for temporization	IL	✓	BCQs, SEQs
95.	Enlist the requirements for temporary crown and bridge resins	IL	✓	SEQs, Viva
96.	Discuss the types, composition and properties of temporary crown and bridge resins	IL	✓	BCQs, SEQs, Viva.
97.	Explain direct and indirect technique for making temporary crown and bridge	IL	✓	SEQs, OSPE, Viva.
98.	State the uses of dental cements and give examples	IL	✓	BCQs, SEQs, OSPE, Viva.

99.	Differentiate between a liner and base	IL	✓	BCQs, SEQs, OSPE, Viva.
100.	Discuss the requirements of cavity liner/base	IL	✓	BCQs, SEQs, OSPE, Viva.
101.	Discuss the requirements of luting cement	IL	✓	BCQs, SEQs, OSPE, Viva.
102.	State the requirements of endodontic cements	IL	✓	BCQs, SEQs, Viva
103.	State the requirements of orthodontic cements	IL	✓	BCQs, SEQs, OSPE, Viva.
104.	Enlist cements based on phosphoric acid.	IL	✓	SEQs
105.	Enlist the composition ,properties and uses of zinc phosphate cements	IL	✓	BCQs, SEQs,Viva
106.	Discuss silicophosphate cements.	IL	✓	SEQs, Viva.
107.	Discuss copper cements	IL	✓	BCQs, SEQs
108.	Enlist cements based on organometallic chelate compounds.	IL	✓	SEQs, Viva.
109.	Classify zinc oxide eugenol cements.	IL	✓	SEQs, OSPE
110.	Enlist the composition, properties and uses zinc oxide eugenol cements.	IL	✓	BCQs, SEQs
111.	Discuss ortho-ethoxybenzoic acid (EBA) cements.	IL	✓	BCQs, SEQs
112.	Enlist the composition, properties and uses of calcium hydroxide cements	IL	✓	BCQs, SEQs, Viva
113.	Explain pulp capping	PBL	✓	BCQs, SEQs, OSPE, Viva, PBL
114.	Discuss the composition, properties and uses of polycarboxylate cements	IL	✓	SEQs, Viva
115.	Discuss the composition, properties and uses of glass ionomer cements	IL	✓	BCQs, SEQs, OSPE, Viva
116.	Discuss the composition, properties and uses of resin modified glass ionomer cement	IL	✓	BCQs, SEQs, OSPE, Viva
117.	Compare and contrast dental cements belonging to different groups	IL	✓	BCQs, SEQs
118.	State the objectives of endodontics	IL, SGD	✓	BCQs, SEQs, OSPE, Viva.
119.	List the different materials used during endodontic treatment	IL, SGD	✓	BCQs, SEQs, OSPE, Viva.
120.	State ideal requirements for lubricants and irrigants and give examples	IL, SGD	✓	BCQs, SEQs, OSPE, Viva.
121.	Discuss intracanal medicaments	IL, SGD	✓	BCQs, SEQs, OSPE, Viva.
122.	Discuss sealants and their properties	IL	✓	CQs, OSPE
123.	Discuss bulk filling materials in endodontic treatment	IL	✓	CQs, OSPE, Viva
124.	Classify dental implants	IL	✓	BCQs, OSPE, Viva
125.	Enlist materials for dental implants	IL	✓	BCQs, OSPE, Viva
126.	State uses of dental implants	IL	✓	BCQs, OSPE, Viva.
127.	Discuss advantages and disadvantages of dental implants	IL	✓	OSPE, Viva.

128.	Explain osteointegration	IL	✓	OSPE.
129.	Discuss biocompatibility of dental implants	IL	✓	OSPE.
	PATIENT SAFETY			
130.	Discuss 'amalgam controversy'	IL	✓	SEQs
131.	Outline the safety concerns regarding mercury in dental amalgam and its potential hazards.	IL	✓	BCQs, SEQs, Viva.
	COMMUINCATION SKILLS/Professionalism			
132.	Outline uses of dental amalgam	PBL	✓	BCQs, SEQs, OSPE, Viva, PBL
133.	Explain pulp capping (Poster, Oral Presentation and PBL)	PBL	✓	PBL, Viva, SEQs.
	PHARMACOLOGY			
134.	Describe the mechanism of action, clinical uses and adverse effects of barbiturates	IL	✓	BCQs, SEQs, Viva
135.	Describe the mechanism and adverse effects of various groups of anti-seizure drugs	IL	✓	BCQs, SEQs, Viva
136.	Describe the mechanism of action of general anesthetic agents	IL, SGD	✓	BCQs, SEQs, Viva
137.	Describe merits, demerits and adverse effects of intravenous and inhalational anesthetic agents	IL, SGD	✓	BCQs, SEQs, Viva
138.	Describe the pharmacology of local anesthetic drugs	IL, SGD, Assign	✓	BCQs, SEQs, Viva
139.	Describe the mechanism, uses and adverse effects of skeletal muscle relaxants	IL	✓	BCQs, SEQs, Viva
140.	Describe the drug treatment of Parkinsonism	IL	✓	BCQs, SEQs, Viva
141.	Describe mechanism, uses and adverse effects of antipsychotic drugs and lithium	IL	✓	BCQs, SEQs, Viva
142.	Describe the various antidepressant drug groups according to their mechanism of action	IL	✓	BCQs, SEQs, Viva
143.	Describe the pharmacology of alcohol	IL	✓	BCQs, SEQs, Viva
144.	Describe the mechanism of action, uses and adverse effects of CNS stimulants	IL	✓	BCQs, SEQs, Viva
145.	Describe the pharmacology of anti-thyroid drugs	IL	✓	BCQs, SEQs, Viva
146.	Describe the mechanism of action and adverse effects of female sex hormones	IL	✓	BCQs, SEQs, Viva
147.	Describe the clinical uses of female sex hormones	IL	✓	BCQs, SEQs, Viva
148.	Explain the mechanism of action, clinical uses and adverse effects of male sex hormones	IL	✓	BCQs, SEQs, Viva
149.	Describe the clinical uses of anti-androgens	IL	✓	BCQs, SEQs, Viva
150.	Describe the parenteral drug treatment of diabetes mellitus	IL, SGD, Assign	✓	BCQs, SEQs, Viva
151.	Describe the oral drug treatment of diabetes mellitus	IL, SGD,	✓	BCQs, SEQs, Viva

		PBL, Assign		
152.	Describe the pharmacology of parathyroid hormone	IL	✓	BCQs, SEQs, Viva
153.	Describe the pharmacology of antifungal drugs	IL, SGD	✓	BCQs, SEQs,Viva
154.	Interpret the effects of lignocaine and procaine on the legs of frog.	LAB SKILLS	✓	OSCE/VIVA
	Identify the slides and write down the treatment of the causative Helminth / Protozoa.	LAB SKILLS	✓	OSCE/VIVA
155.	Identify and write down the characterstics of the given Pharmacognosy specimen.	LAB SKILLS	✓	OSCE/VIVA
156.	Interpret the effect of strychnine and picrotoxin on the CNS of frog.	LAB SKILLS	✓	OSCE/VIVA
	Identify the parts of prescription order.	LAB SKILLS	✓	OSCE/VIVA
	Write down the prescription order for diseases	LAB SKILLS	✓	OSCE/VIVA
	PATHOLOGY			
157.	Illustrate the immune responses with the help of flow diagram	ILD		BCQ
158.	Describe the role of antibodies and complement system in immune responses.	ILD		BCQ/SEQ
159.	Comprehend the role of MHC in transplant rejection	ILD		BCQ/SEQ
160.	Relate the loss of central and peripheral tolerance to the development of different autoimmune diseases and the subsequent clinical effects	SGD		SEQ/BCQ
161.	Classify the immunodeficiency disorders on the basis of deficiency of major immune components and clinical consequences	SGD		BCQ/SEQ
162.	Compare hypersensitivity reactions (type I, type II, type III, and type IV) on the basis of underlying mechanism along with relevant examples.	SGD		SEQ/BCQ
163.	Compare the different patterns of inheritance of single gene disorders,(i.e. autosomal dominant, autosomal recessive, X-linked dominant/recessive and Y- linked disorders)	ILD/SGD		BCQ/SEQ
164.	Differentiate between single gene disorders with atypical patterns of inheritance and Mendelian disorders on the basis of characteristics of inheritance	ILD		BCQ/SEQ
165.	Explain chromosomal disorders, involving autosomes and sex chromosomes, as regards to the underlying chromosomal abnormality, risk factors and clinical features	IL		SEQ/BCQ
166.	Interpret normal and abnormal karyotypes and describe them using shorthand system of notation.	IL		BCQ/SEQ

167.	Classify and discuss pathogenesis of medically important fungi	IL		BCQ
168.	Discuss clinical presentation and laboratory diagnosis of cutaneous, subcutaneous and opportunistic mycoses	IL		SEQ
169.	Classify parasites on the basis of different morphological structures and their site of infection	IL		BCQ/SEQ/OSCE
170.	Describe etiology, mode of transmission, pathogenesis, control and preventive strategies of common pathogens (Entamoeba Histolytica, giardia lamblia, cryptosporidium, trichomonas vaginalis)	IL		BCQ/SEQ
171.	Describe etiology, mode of transmission, pathogenesis, lab diagnosis and preventive measures of pneumocystis and toxoplasmosis	IL		BCQ/SEQ/AS
172.	Describe the etiology, mode of transmission, lab diagnosis and preventive measures of plasmodium.	IL		BCQ/SEQ
173.	Describe etiology, mode of transmission, lab diagnosis and preventive measures of leishmania.	SGD		BCQ/SEQ
174.	Describe the etiology, mode of transmission, lab diagnosis and preventive measures of Cestodes (Taenia).	IL		BCQ/SEQ
175.	Describe the etiology, mode of transmission, control and preventive strategies of Echinococcus Granulosis.	IL		BCQ/SEQ
176.	Describe the etiology, mode of transmission, pathogenesis, control and preventive strategies for intestinal nematodes (Entrobius, trichuris, Ascaris lumbricoides)	IL		OSCE/BCQ/SEQ
177.	Describe the etiology, mode of transmission, control and preventive strategies for parasitic diseases of public health importance: Ankylostomaduodenale.	IL		BCQ/SEQ
178.	Describe the etiology, mode of transmission, control and preventive strategies for parasitic diseases of public health importance: strongyloides.	SGD		SEQ/BCQ
179.	Identify histopathological features of papilloma	SGD		BCQ/AS
180.	Identify histopathological features of Basal cell carcinoma	SGD		SEQ/BCQ
181.	Identify histopathological features of malignant melanoma.	SGD		BCQ
182.	Identify histopathological features of squamous cell carcinoma	IL		BCQ
183.	Identify histopathological features of osteochondroma and osteosarcoma	IL		SEQ/BCQ
184.	Identify gross morphological features of Malignant melanoma	IL		BCQ
185.	Identify gross morphological features of osteosarcoma	IL		BCQ/SEQ
186.	Identify gross morphological features of adenocarcinoma pylorus	LAB SKILLS		OSCE/VIVA

187.	Identify gross morphological features of Malignant melanoma	LAB SKILLS		OSCE/VIVA
188.	Identify gross morphological features of Adenocarcinoma-rectum	LAB SKILLS		OSCE/VIVA
189.	Identify gross morphological features of squamous cell carcinoma cervix	LAB SKILLS		OSCE/VIVA
190.	Identify gross morphological features of angle of mouth	LAB SKILLS		OSCE/VIVA
191.	Discuss the pathogenesis and lab diagnosis of Candida albicans	LAB SKILLS		OSCE/VIVA
192.	Identify different parasites in stool examination	LAB SKILLS		OSCE/VIVA
193.	Discuss the pathogenesis and lab diagnosis of plasmodium in different stages of its development	LAB SKILLS		OSCE/VIVA
194.	Discuss the pathogenesis of Ascaris lumbricoides	LAB SKILLS		OSCE/VIVA
195.	Illustrate the immune responses with the help of flow diagram	LAB SKILLS		OSCE/VIVA
196.	Describe the role of antibodies and complement system in immune responses.	LAB SKILLS		OSCE/VIVA
197.	Comprehend the role of MHC in transplant rejection	LAB SKILLS		OSCE/VIVA
198.	Relate the loss of central and peripheral tolerance to the development of different autoimmune diseases and the subsequent clinical effects	LAB SKILLS		OSCE/VIVA
199.	Classify the immunodeficiency disorders on the basis of deficiency of major immune components and clinical consequences	LAB SKILLS		OSCE/VIVA
200.	Compare hypersensitivity reactions (type I, type II, type III, and type IV) on the basis of underlying mechanism along with relevant examples.	LAB SKILLS		OSCE/VIVA
201.	Compare the different patterns of inheritance of single gene disorders,(i.e. autosomal dominant, autosomal recessive, X-linked dominant/recessive and Y- linked disorders)	LAB SKILLS		OSCE/VIVA
202.	Differentiate between single gene disorders with atypical patterns of inheritance and Mendelian disorders on the basis of characteristics of inheritance	LAB SKILLS		OSCE/VIVA
	PRE-CLINICS- OPERATIVE DENTISTRY			
203.	Introduction of Conservative/Operative Dentistry	IL	✓	BCQs (one best)
204.	List the aims of Conservative/Operative Dentistry	IL	✓	BCQs/SEQs
205.	Repeat Nomenclature of dentition	IL/SGD D	✓	BCQs/SEQs
206.	Illustrate Tooth Numbering systems, ADA, Zsigmondy- Palmer, and FDI systems	IL/SGD D	✓	BCQs/SEQs
207.	Identify hand instruments	SGD/Skill Lab	✓	OSCE
208.	Recognize the design of hand instruments	SGD/Skill Lab	✓	BCQs/OSCE

209.	Apply different grips to hold hand instruments	SGD/Skill Lab	✓	OSCE
210.	Classify rotary instruments	SGD/Skill Lab	✓	BCQs
211.	Demonstrate tooth preparation with rotary instruments	Skill Lab		BCQs/OSCE
212.	Describe know different components of patient history	IL/SGD	✓	BCQs/SEQs/OSCE
213.	Perform documentation of history of patient	IL/SGD	✓	OSCE
	Professionalism and Ethics			
214.	Introduce himself/ herself	CR	-	Role play
215.	Communicate with supervisors respectfully	CR	-	Role play
216.	Explain various types of filling to the patient	CR	-	OSCE/ Role play
217.	Explain preventive treatments for dental caries to the patient	CR	-	Role play
	Communication Skills			
218.	Able to communicate with superiors and juniors respectfully	CR	-	Role play
219.	Speak clearly and confidently		-	Role play
220.	Display empathy and respect to the patient during history taking	CR	-	Role play
221.	Show positive gestures to the Juniors, class fellows & Seniors	CR	-	Role play
222.	Enlist steps of extra and intra oral examination and document findings	IL/SGD	✓	SEQs/OSCE
223.	Identify the parts of dental unit	Skill Lab	-	BCQs/ OSCE
224.	Operate dental unit in phantom lab	Skill Lab	-	OSCE
225.	Demonstrate about positioning the patients and the dentist in operatory	Skill Lab	✓	OSCE/Role play
226.	Define Dental caries	IL/SGD	✓	OSCE
227.	Review G.V. Black classification of dental caries	IL/SGD	✓	OSCE
228.	Describe Graham Mount classification of dental caries	IL	✓	BCQs/SEQs/OSCE
229.	Differentiate between G.V. Black & Graham Mount classification of Dental caries	IL/SGD	✓	BCQs/OSCE
230.	Memorize parts of matrix band retainer	SGD/Skill Lab	✓	OSCE
231.	Apply matrix band Retainer & wedge	SGD/Skill Lab	-	BCQs/ OSCE
	Patient Safety			
232.	Practice the use of isolation methods for patient safety (Rubber dam & matrix band application)	CR	-	OSCE

233.	Capable to seat patient on dental unit	CR	-	OSCE
234.	Know how to use saliva ejector to maintain isolation	CR	-	OSCE
235.	Show to the patient about use of lead apron & thyroid collar for X-ray taking	CR	-	Role play
236.	Express various steps in Class I cavity preparation	Skill Lab	✓	OSCE
237.	Plan Class I cavity on plaster models/ acrylic teeth in phantom lab	Skill Lab	-	OSCE
238.	Discuss different steps in Class V cavity preparation	Skill Lab	✓	OSCE
239.	Prepare Class V cavity on plaster models/ acrylic teeth in phantom lab	Skill Lab	-	BCQs/OSCE
240.	Explain cavity liners and bases	IL/SGD	✓	BCQs/ SEQs
241.	Discuss Steps of amalgam placement	IL		BCQs/ SEQs
242.	Complete finishing and polishing of amalgam restoration	Skill Lab	-	BCQs
243.	Manipulate lining material/filling materials	SGD/Skill Lab	-	OSCE
244.	Demonstrate placement of lining on acrylic tooth	Skill Lab	-	OSCE
245.	Perform filling of Amalgam in Class I tooth cavities	Skill Lab	-	OSCE
246.	Illustrate steps of Class II Slot preparation	SGD/Skill Lab	✓	BCQs/SEQs
247.	Prepare Class II Slot cavity on plaster models/ acrylic teeth in phantom lab	SGD/Skill Lab	-	BCQs
248.	Restore Class II Slot preparation with amalgam	SGD/Skill Lab	-	BCQs/SEQs
249.	Discuss steps of Class II MO/DO/ MOD cavity design	SGD/Skill Lab	✓	OSCE
250.	Execute Class II MO/DO cavity design on plaster models/ acrylic teeth in phantom lab.	Skill Lab	-	BCQs/SEQs/OSCE
251.	Perform Class II MOD cavity design on plaster models/ acrylic teeth in phantom lab.	Skill Lab	-	BCQs/SEQs/OSCE
252.	Demonstrate restoration of Class II MO/DO/MOD preparation with amalgam	SGD/Skill Lab	-	BCQs/SEQs
253.	Explain purpose of Acid Etching of Enamel/Dentin	IL/SGD	✓	BCQs /SEQs
254.	Demonstrate bonding to enamel and dentine	IL/SGD	✓	BCQs /SEQs
255.	Describe Composite as a restorative material	SGD	✓	BCQs /SEQs
256.	Discuss steps of Class III cavity preparation	SGD/Skill Lab	✓	BCQs /OSCE
257.	Propose steps of Class IV cavity preparation	SGD/Skill Lab	-	BCQs/SEQs/OSCE
258.	Prepare Class III cavity on plaster models/ acrylic teeth in phantom lab.	Skill Lab	-	OSCE
259.	Prepare Class IV cavity design on plaster models /acrylic teeth in phantom lab	Skill Lab	-	OSCE
260.	Apply Etchant on the tooth cavities	SGD	✓	BCQs /SEQs

261.	Use bonding agent on the tooth cavities	SGD	✓	BCQs /SEQs
262.	Demonstrate how composite is placed in Class III/IV tooth cavities	Skill Lab	-	OSCE
263.	Perform the finishing and polishing of composite restoration	Skill Lab	-	OSCE
264.	**Commination Skill**			
265.	Presentation			
266.	**Teaching strategies** IL*= Interactive large group discussion SGD*= Small group discussion Skill Lab*= Phantom Lab	**Assessment tools** BCQs=Best choice questions SEQs= Short Essays Questions OSCE= Oral Structured & Clinical Exam		

BEHAVIORAL SCIENCE TOPICS INTEGRATION WITH OTHER DEPARTMENT	**LO NUMBER**
Community Dentistry	23-35
Dental Material	130-133
Prosthodontics	214-234

ACADEMIC SCHEDULE

Department of Community Dentistry

Department of Science of Dental Materials

Department of Pre-clinics (Prosthodontics and Operative Dentistry)

Department of Pharmacology

Department of Pathology

Weekly schedule of Module VI Community and Preventive Dentistry		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Sociology I L.O (1-2)	Sociology II L.O (3-4)
Week – 2	Behaviour Management I L.O (10)	Behaviour Management II L.O (10)
Week – 3	Child psychology I L.O (8-9)	Child psychology II L.O (8-9)
Week – 4	Stress/ Anxiety L.O (5-6)	Delay in seeking help L.O (7)
Week – 5	**Community Field Trip**	
Week – 6	Patient dentist communication L.O (23-35)	**Class test**
Week – 7	Introduction to biostatistics L.O (11-13)	Types of sampling I L.O (19)
Week –8	Types of sampling II L.O (19)	Measures of Central Tendency/ dispersion L.O (14, 15, 17, 19)
Week -9	**Community Field Trip**	
Week -10	Tests of significance L.O (16)	Concept of sampling error L.O (18)
Week -11	Revision	Revision
Week –12	Revision	Revision
Week –13	THEORY EXAMINATION	
Week-14	VIVA EXAMINATION	

Weekly schedule of Module VI Science of Dental Materials			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Requirements of direct filling materials **(LO=36)**	Requirements of direct filling materials **(LO=37)**	Dental Amalgam **(LO=38-40)**
Week – 2	Dental Amalgam **(LO=41-43)**	Dental Amalgam **(LO=44-46)**	Dental Amalgam **(LO=47-50)**
Week – 3	Resin based filling materials **(LO=51-56)**	Resin based filling materials **(LO=57-62)**	Resin based filling materials **(LO=63-69)**
Week – 4	Adhesive restorative materials **(LO=70-73)**	Adhesive restorative materials **(LO=74-77)**	Adhesive restorative materials **(LO=78-82)**
Week – 5	GIC **(LO=83-85)**	GIC **(LO=86)**	GIC **(LO=87-88)**
Week – 6	Resin- modified GIC **(LO=89-90)**	Resin- modified GIC **(LO=91-92)**	Resin- modified GIC **(LO=93)**
Week – 7	Temporary crown and bridge **(LO=94-95)**	Temporary crown and bridge **(LO=96-97)**	TEST **(36-97)**
Week –8	Requirements of dental cement **(LO=98-100)**	Requirements of dental cement **(LO=101-103)**	TEST
Week -9	Cements based on phosphoric acid **(LO=104-105)**	Cements based on phosphoric acid **(LO=106-107)**	Cements based on organometallic chelate compounds **(LO=108-110)**
Week -10	Cements based on organometallic chelate compounds **(LO=111-113)**	Polycarboxylate cements **(LO=114-115)**	Polycarboxylate cements **(LO=116-117)**
Week -11	Endodontics **(LO=118-123)**	Endodontics **(LO=124-129)**	Revision
Week –12	Revision	Revision	Revision
Week-13	**THEORY EXAMINATION**		
Week-14	**VIVA EXAMINATION**		

Weekly schedule of Module VI PHARMACOLOGY			
Week no.	**Lecture 1**	**Lecture 2**	**Lecture 3**
Week – 1	Antifungal drugs **153**	Drug treatment of ameobiasis& giardiasis **153**	Drug treatment of plasmodium infections **153**
Week – 2	Benzodiazipines **134**	Barbiturates **134**	Antiseizure drugs-1 **135**
Week – 3	Antiseizure drugs-2 **135**	General anesthetic agents-1 **136**	General anesthetic agents-2 **137**
Week – 4	Local anesthetics-1 **138**	Local anesthetics-2 **138**	Skeletal muscle relaxants **139**
Week – 5	Drug treatment of parkinsonism **140**	Antipsychotic drugs **141**	Antidepressant drugs **142**
Week – 6	Class test	Alcohol **143**	CNS stimulants **144**
Week – 7	Antithyroid drugs **145**	Female sex hormones-1 **146**	Female sex hormones-2 **146**
Week –8	Male sex hormones & Anti-androgens **148, 149**	Parenteral drug treatment of diabetes mellitus **150**	Oral drug treatment of diabetes mellitus **151**
Week -9	Pharmacology of parathyroid hormone **152**	Revision- CNS	Revision-ENDO
Week -10	Revision-CNS	Revision-CNS	Revision-ENDO
Week -11	Revision-4th Module Topics	Revision-4th Module Topics	Revision-5th Module Topics
Week –12	REVISION-5th Module Topics	REVISION-5th Module Topics	REVISION-5th Module Topics
Week –13	THEORY EXAMINATION		
Week-14	VIVA EXAMINATION		

Weekly schedule of Module VI DEPARTMENT OF PATHOLOGY		
Week no.	**Lecture 1**	**Lecture 2**
Week – 1	Immune response(LO=158)	HPV (herpes)(LO=157)
Week – 2	Cells of immune system(LO=159)	Introduction to Mycology(LO=170)
Week – 3	Hypersensitivity reactions type I &II(LO=148)	Candida Albicans(LO=170)
Week – 4	Hyper sensitivity reactions type – III & IV(LO=163)	EntamoaebaHystolitica(LO=173)
Week – 5	Immune tolerance(LO=165)	Plasmodium (LO=174)
Week – 6	Auto immune disorders(LO-165)	Ascaris lumbricoides (LO=176)
Week – 7	Primary immune deficiency disorders(LO=166)	Mumps and Measles(LO=182)
Week –8	Secondary immune deficiency disorders(LO=166)	Leishmaniasis-I (LO=183,184)
Week -9	Single gene disorders-I(LO=169)	Leishmaniasis-II (LO=183,184)
Week -10	Single gene disorder –II(LO=169)	Other Protozoa of medical Importance (LO=175)
Week -11	Single gene disorders with atypical pattern of inheritance(LO=171,172)	Other Fungi of Medical importance (LO=167)
Week –12	REVISION	REVISION
Week –13	THEORY EXAMINATION	
Week-14	VIVA EXAMINATION	

Pre- Clinical Academic Session – BDS Second Professional		
Commencement of Module VI Operative Dentistry		
Week	**Laboratory Session (Group A & B)**	**Tutorial Session**
1.	Introduction & Aims of Operative Dentistry Know the part of dental unit & position of dentist in Operatory **LO (203-204, 223-225)**	Nomenclature of dentition Definition & classification of dental caries **LO (205-206, 226-227)**
2.	Dental instruments **LO (207-210)**	Graham Mount classification of dental caries **LO (228-229)**
3.	Tooth preparation of Class I Cavity with rotary instruments **LO (236-237)**	Demonstration of matrix band **LO (230-231)**
4.	Demonstration on Class V cavity preparation **LO (238-239)**	Practice of matrix band **LO (231-232)**
5.	Demonstration of amalgam filling on phantom tooth **LO (245)**	Cavity liners and bases **LO (240-243)**
6.	Practice of cavity preparation Class (I & V) **LO (237-238)**	Steps of class II slot preparation **LO (246- 247)**
7.	Demonstration of Class II MO/DO/MOD cavity **LO (249-250)**	Discuss steps of Class III cavity preparation **LO (256)**
8.	Demonstration of Class III cavity preparation **LO (258)**	Discuss etching & bonding of enamel and dentine **LO (253-254)**
9.	Practice of cavity preparation Class II slot, MO/DO) **LO (251-252)**	Restorative materials **LO (255)**
10.	Discuss steps of Class IV cavity preparation **LO (257)**	Demonstration of Class IV cavity preparation **LO (259)**
11.	Demonstration of application of etchant, bond and composite placement in Class III & IV cavities **LO (260-261)**	Practice of cavity preparation of Class III **LO (258)**
12.	Practice of cavity preparation of Class IV **LO (259)**	Practice of cavity preparation Class IV **LO (262)**
13.	**Module Examination Theory**	
14.	**Practical OSPE /Viva**	

LEARNING RESOURCES

DEPARTMENT OF COMMUNITY & PREVENTIVE DENTISTRY

1. Burt, B. &Eklund, S. (2005) Dentistry, Dental Practice & The Community. 6th ed. Saunders
2. SS Hiremith, (2009), textbook of Preventive and Community Dentistry
3. Daly B, Watt R, Batchelor P & Treasure E (2013) Essential Dental Public Health, Oxford University Press.
4. Smeeton Nigel (2012) Dental Statistics Made Easy 2nd edition Radcliffe Publication
5. Essential of Preventive and Community Dentistry Soben Peter (Latest Edition)
6. Text Book of Preventive and Community Dentistry Joseph John (Latest Edition

DEPARTMENT OF SCIENCE OF DENTAL MATERIALS

7. Applied Dental Materials, John F McCabe (Latest Edition)
8. Philips Science of Dental Materials, Kenneth J. Anusavice (Latest Edition)
9. Sturdevant Art and Science of Operative Dentistry, Harald O Heyman, Edward J Swift.(Latest Edition)
10. Craig's Restorative Dental Materials, John M Powers Ronald L Sakaguchi. (Latest Edition)

DEPARTMENT OF OPERATIVE DENTISTRY

11. Joseph R Evans, John H Wilke. Atlas of Operative Dentistry: Preclinical and clinical procedures. Quintessence books Publishing Co.
12. Richard L Kahn, Pinkerton RJ, Kagihara LE. Fundamentals of Preclinical Operative Dentistry.
13. The Art & Science of Operative Dentistry by Sturdurant.
14. Pickardards Manual of Operative Dentistry by EAM Kidd.

15. Fundamentals of Operative Dentistry by Schwartz
16. Dental Restorative Materials – Craig
17. Textbook of Operative Dentistry by Vimal K Sikri

DEPARTMENT OF PHARMACOLOGY

18. Lazo JS & Parker. Goodman and Gillman's The Pharmacological basis of therapeutics 12th edition McGrawHillCompany,USA 2006.
19. Katzung BG, Masters SB & Trevor AJ. Basic and Clinical Pharmacology-Katzung 14th edition TATA McGrawHill Education Private Ltd, New Delhi 2009.
20. Finkel R Cubeddu L X, Clark MA, Harvey R &Champe P. Lippincott's Illustrated Reviews Pharmacology. 7th edition, Wolters Kluwer-Lippincott Williams & Wilkins New Delhi 2009.

DEPARTMENT OF PATHOLOGY

21. Peter D. Turnpenny, Emery's Elements of Medical Genetics (14thed.). New York: Churchill Livingstone. 2011.
22. Cotran RS, Kumar V and Collins T. Robbin's Pathologic Basis of Disease (8thed.). Philadelphia: W.B. Saunders. 2010.
23. Walter JB and Talbot IC. Walter and Israel's General Pathology (7thed.). New York: Churchill Livingstone. 1996.
24. Kumar V, Cotran RS, and Robbins SL. Basic Pathology (8thed.). Philadelphia: W.B. Saunders. 2007.
25. Rubin E, Pathology (4thed.) Philadelphia: Lippincott-Raven. 2005
26. Ivan Roitt. Riott's Essential Immunology (11thed.). New Delhi:I.K. International Pvt. Ltd. 2007.
27. Harsh Mohan. Textbook of pathology. 6th ed. Jaypee broth. 2010.

ATLAS:

28. Wheater P et al. Basic Histopathology: A Color Atlas and Text (2nded.). Edinburgh: Churchill Livingstone. 1990.
29. Harsh Mohan. Pathology practical book. 2nd ed. Jaypee broth. 2007.

Microbiology

30. Jawetz .medical microbiology.25th ed.2010 Lange/McGrawHill

31. Levinson W. Microbiology and Immunology: Review. 10th ed. 2009 Lange/TataMcGrawHill

32. Michael j pelczar .Microbiology.6th ed. TataMcGraw

33. Richard a harvey. Microbiology.lippincottsillustrated review 2nd edition.

WEBSITES

Department of Community Dentistry

http://www.who.int/en/
http://www.nhs.uk/Pages/HomePage.aspx

http://www.ada.org/

http://www.bda.org

Department of Pharmacology

www.studentcorner.com
www.drugs.com
www.pharmacology.com
www.medicalstudent.com

Department of Pathology

The internet pathology laboratory for medical education
library.***med***.utah.edu/WebPath/webpath.html

Microbiology

www.asm.org