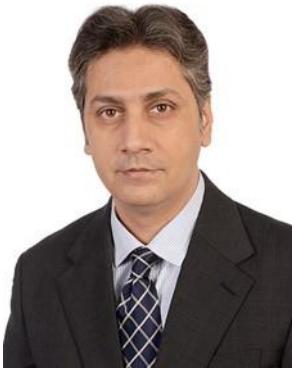
BAHRIA UNIVERSITY DENTAL COLLEGE BUHSC-(K)

First Year BDS
Batch X
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**

BUDC

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.

1- 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.

2- 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

3- 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

4- 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

- **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.
- 1st and 2nd Position holder from each professional examination for BDS
- Highest marks in the class not less than 70%
- 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.

MENTORING SCHEDULE

MENTORS **HEAD MENTOR**

1. **Dr. Fatima Israr**
2. **Dr. Bushra**
3. **Dr. Hajra**
4. **Dr. Sumbul**
5. **Dr. Rida**

PROF DR KULSOOM FATIMA RIZVI

Procedure:

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, third Thursday of the month, 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 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.

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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 Anatomy

Department of Physiology

Department of Biochemistry

Department of Oral Biology & Tooth Morphology

DEPARTMENT OF ANATOMY

The Department of Anatomy at Bahria University Dental College comprises of well trained and experienced post-graduate faculty members. Since Anatomy is one of the basic science subjects, the teaching methodology adopted is unique and integrated with other subjects of basic sciences.

For student learning, the department includes spacious and well-equipped museum, dissection hall, histology laboratory, and a micro technique section.

Head of Department	Dr. Ambreen Usmani	Senior Professor
Facilitators	Dr. Aisha Qamar	Senior Professor
	Dr. Yasmeen Mahar	Associate Professor
	Dr. Ayesha Saba	Assistant Professor
	Dr. Quratul-Ain Omaeer	Assistant Professor
	Dr. Ambreen Surti	Assistant Professor
	Dr. Ayesha Mehwish	Sr. Lecturer
	Dr. Shahab Shafi	Sr. Lecturer
	Dr. Saima Khalid	Sr. Lecturer
	Dr. Madiha Mushtaq	Lecturer
	Dr. Bilal	Lecturer

DEPARTMENT OF PHYSIOLOGY

Human Physiology is branch of medicine that deals with the study of functions of human body. It is intimately related with human anatomy, biochemistry, pharmacology, pathology, behavioral sciences, and is mother of medicine.

The physiology laboratory is very well equipped with latest and modern gadgets, apparatus and instruments like biopac, spirometer, stethograph, ergometer, binocular microscopes, ophthalmoscope, perimeter, PEF meter, centrifuge and ECG machine etc. The lab is also provided with overhead projectors and multimedia facilities, such a provision at our disposal will benefit students maximally in demonstrating CD`s and conducting tutorials and practical's. The lab staff is also highly experienced and well trained.

Head of Department	Dr. Nighat Rukhsana	Professor
Facilitators	Dr. Shazia Shakoor	Professor
	Dr. Sheikh Saeed	Professor
	Dr. Irum Amir	Associate Professor
	Dr. Saifullah Sheikh	Associate Professor
	Dr. Hina Moazzam	Assistant Professor
	Dr. Sana Akbar	Sr. Lecturer
	Dr. Faryal Zaidi	Lecturer
	Dr. Fatima Zehra	Sr. Lecturer
	Dr. Rabia Siddiqui	Sr. Lecturer
	Dr. Lalarukh Munawwar	Sr. Lecturer
	Dr. Tooba Masood	Lecturer
	Dr. Ambreen Kalam	Lecturer
	Dr. Zahra Tapal	Lecturer
	Dr. Khushboo	Lecturer
	Dr. Ayesha	Lecturer

DEPARTMENT OF ORAL BIOLOGY AND TOOTH MORPHOLOGY

Oral Biology deals with the study of the oral and craniofacial tissues along with the application of basic scientific knowledge to oral tissues in health and diseased state.

Our mission is to create a strong foundation of the basic structure of oral tissues on which students can further build up their forthcoming years of dental education. We meet the contemporary educational standards and create a positive learning environment by employing innovative integrated curriculum including thematic teaching strategy, lectures on multimedia, and educational videos. Interactive sessions are advocated to improve comprehension of students and to fortify their skills of communication and self-expression. The laboratory is fully equipped with microscopes for visualizing histological sections of oral tissues, along with tooth models to further enhance their skills on identification of individual teeth

FACULTY

Head of Department	Dr. Beenish Fatima Alam	Assistant Professor
Facilitators:	Dr. Madiha Anwar	Assistant Professor
	Dr. Raima Bashir	Sr. Lecturer

MODULE I

ANATOMY		Mode of Teaching	Online Learning	Mode of Assessment
1.	Describe the basic structure of cell	IL	✓	BCQs
2.	Describe the different types of organelles and inclusion bodies	IL	✓	BCQs
3.	Describe the surface modification of cell	IL	✓	BCQs
4.	Define the different types of cell junctional complex	IL / SGIS	✓	BCQs
5.	Explain the cell cycle	IL	✓	BCQs
6.	Differentiate between mitosis and meiosis	IL	✓	BCQs
7.	Identify the different stages of mitosis and meiosis	SGIS	✓	OSPE
8.	Discuss anatomical terms	IL /SGIS	✓	BCQs & OSPE
9.	Identify planes and sections with anatomical position of human body	SGIS	✓	BCQs & OSPE
10.	Classify bones, joints, cartilages and muscles	IL /SGIS	✓	SEQS ,BCQs, OSPE
11.	Introduction to nervous system	IL	✓	BCQ
12.	Identify different parts of compound microscope	PW		OSPE
13.	Discuss the process of tissue processing	PW		BCQs
14.	Describe the microscopic features of epithelial tissues (squamous, cuboidal, columnar, and transitional)	IL	✓	SEQs, BCQs, OSPE
15.	Identify the epithelial tissues on a given slide (squamous, cuboidal, columnar and transitional)	PW		SEQs, BCQs, OSPE
16.	Describe the microscopic features of connective tissues	IL	✓	SEQs, BCQs
17.	Identify the various types of connective tissue on a given slide	PW		OSPE
18.	Describe the microscopic features of skeletal,	IL	✓	SEQS, BCQs

	cardiac and smooth muscles			
19.	Identify skeletal, cardiac and smooth muscles on a given slide	PW		OSPE
20.	Describe the microscopic features of different types of cartilage	IL	✓	SEQS, BCQs
21.	Identify the microscopic features of hyaline, elastic and fibrocartilage on a given slide	PW		OSPE
22.	Describe the microscopic features of compact and spongy bone	IL	✓	SEQS, BCQs
23.	Identify the microscopic features of compact and spongy bone on a given slide	PW		OSPE
24.	Differentiate between gross and microscopic features of artery, vein and capillaries	IL	✓	SEQS, BCQs
25.	Identify the microscopic features of artery and vein	PW		OSPE
26.	Describe the microscopic features of integumentary system	IL	✓	BCQs, SEQs
27.	Identify the microscopic features of integumentary system	PW		OSPE
28.	Identify male and female genital organs	SGS		OSPE
29.	Describe oogenesis and spermatogenesis	IL	✓	SEQS ,BCQs & OSPE
30.	Discuss the uterine and ovarian cycle	IL	✓	BCQs
31.	Describe the events of 1st week of development	IL	✓	SEQS, BCQs & OSPE
32.	Discuss the events of second week of development	IL/ SGIS	✓	SEQS & BCQs
33.	Describe the events of 3rd week of development	IL/ SGIS	✓	SEQS & BCQs
34.	Identify different stages of zygote and 3rd week of development on a given model	SGIS	✓	OSPE
35.	Discuss the fate of primitive streak and the related abnormalities	IL	✓	SEQS & BCQs
36.	Describe the 4th week of development	IL	✓	SEQS, BCQs

37.	Describe the development of placenta	IL/ SGIS	✓	SEQS, BCQs, OSPE
38.	Enlist events from 5th – 8th week of development	IL	✓	BCQs
39.	Enlist the events of the Fetal period	IL	✓	BCQs
40.	Describe the process and types of Twin pregnancy and name the sites of ectopic pregnancy	IL/SGIS	✓	BCQS, OSPE
41.	Discuss the factors causing Teratogenesis	IL	✓	BCQS
PHYSIOLOGY				
42.	Describe the functional organization of human body.	IL / IS		SEQs, BCQs
43.	Explain the concept of homeostasis and physiological control systems.	IL /IS		CQ
44.	Differentiate between positive and negative feedback system with examples.	IL/IS		SEQs, BCQs
45.	Calculate total body water and its distributions.	PW		OSPE
46.	Explain briefly physical structure and organization of cell.	IL		SEQs, BCQs
47.	Describe the structure and functions of a typical cell membrane.	IL		SEQs, BCQs
48.	Define an organelle and discuss briefly the details of structure and functions of each organelle.	IL		CP, CQ
49.	Explain the role of membrane proteins as channels, carriers, pumps, receptors and enzymes.	IL		SEQs, BCQs,
50.	Describe the various modes of transport across the membrane including osmosis, diffusion, facilitated diffusion, active transport and bulk transport.	IL		SEQs, BCQs
51.	Distinguish excitable and non-excitable tissues.	IL	✓	SEQs, BCQs
52.	Explain briefly the structure and properties of nerve fiber.	IL		SEQs, BCQs
53.	Classify nerve fibers on the basis of conduction velocity, diameter, and myelination.	IL		SEQs, BCQs

54.	Discuss how resting membrane potential is established and maintained.	IS, SGS		SEQs, BCQs
55.	Explain different stages of generation of action potential in nerve fiber.	SGS		SEQs, BCQs
56.	Differentiate between graded potential and action potential.	IL		SEQs, BCQs
57.	Define synapse and classify its types.	IL	✓	SEQs, BCQs
58.	Describe neuromuscular junction and its disorders.	IL		SEQs, BCQs
59.	Describe mechanism of skeletal muscle contraction with special reference to sliding filament theory.	IL, SGS		SEQs, BCQs
60.	Describe composition and function of blood & plasma proteins.	IL, PW	✓	OSPE
61.	Describe the salient features of RBC & Erythropoiesis.	SGS		SEQs, BCQs
62.	Define erythropoiesis and describe its various stages.	IL		SEQs, BCQs
63.	Explain iron metabolism, synthesis, and degradation of hemoglobin	IL	✓	SEQs, BCQs, PBL
64.	Define Anemias and classify its various causes and treatment.	IL		SEQs, BCQs, PBL
65.	Define white blood cells and classify its types.	IL	✓	SEQs, BCQs
66.	Define immunity. Classify its various types in detail.	IL		SEQs, BCQs
67.	Describe the characteristic features of blood platelets.	IL	✓	SEQs, BCQs
68.	Define hemostasis and describe extrinsic and intrinsic pathways of blood coagulation.	IL		SEQs, BCQs,
69.	Describe various types of blood groups.	IL		SEQs, BCQs
70.	Discuss blood transfusion and blood transfusion reactions.	SGS		OSPE, PBL
BIOCHEMISTRY				
71.	Discuss the biochemical aspects of cell and	IL, SGS	✓	BCQs, SEQS

	biochemical composition of cell membrane			
72.	Identify different types of instruments with their working.	PW	✓	OSPE
73.	Identify the laboratory Hazards and their importance	PW	✓	OSPE
74.	Discuss the cell organelles	IL, SGS	✓	BCQs SEQS
75.	Discuss the various modes of membrane transport	IL, SGS	✓	BCQs, SEQS
76.	Perform the preparation of Solutions	PW	✓	OSPE
77.	Elaborate the concept of pH and explain different types of Buffers with their mechanism of action	IL, SGS	✓	BCQs, SEQS
78.	Discuss the buffering capacity & H.H equation	IL, SGS	✓	BCQs, SEQs
79.	Identify pH of different solutions	PW	✓	OSPE
80.	Discuss the chemistry of nucleotide and nucleoside	IL, SGS	✓	BCQs, SEQs,
81.	Perform DNA Extraction on onion cell	PW	✓	OSPE
82.	Discuss the chemistry of nucleic acid	IL, SGS	✓	BCQs, SEQs
83.	Detection of Carbohydrates in given solution	PW	✓	OSPE
84.	Classify carbohydrates with its biomedical importance	IL, SGS	✓	BCQs, SEQs, CP
85.	Discuss the properties & Biomedical importance of carbohydrates	IL, SGS	✓	BCQs, SEQs
86.	Discuss the chemistry of monosaccharaides and their biomedical importance	IL, SGS	✓	BCQs, SEQs
87.	Discuss the chemistry of disaccharides and their biomedical importance	IL, SGS	✓	BCQs, SEQs,
88.	Discuss the chemistry of oligosaccharides and their biomedical importance	IL, SGS	✓	BCQs, SEQs,
89.	Discuss the chemistry of polysaccharides and their biomedical importance	IL, SGS	✓	BCQs, SEQs,
ORAL BIOLOGY				
90.	Describe the boundaries of the oral cavity and the structures in each area.	IL	✓	BCQs
91.	Define the terms vestibule, oral cavity proper, Mucobuccal fold, frenum, alveolar mucosa, gingiva, exostoses, torus palatinus, and torus mandibularis	IL	✓	BCQs
92.	Define the landmarks in the floor of the mouth, hard and soft palate.	IL	✓	BCQs
93.	Describe the structure of teeth including the	IL	✓	BCQs

	enamel, dentine, pulp, periodontium, oral mucosa and salivary glands.			
94.	Identify the demineralized and ground section of tooth in its socket.	PW		OSPE
95.	Enlist types of teeth and dentition and explain their function.	IL, SGS	✓	BCQs
96.	Discuss the order and time of eruption of deciduous and permanent dentition.	IL, SGS	✓	BCQs, SEQS
97.	Understand the difference between primary dentition, secondary dentition, and mixed dentition.	IL, SGS	✓	BCQs, OSPE
98.	Identify the teeth using Universal system, Palmer notation system, and Federation Dentaire Internationale (FDI) system	SGS		BCQs
99.	Identify a tooth when given a code from one of the three systems on a tooth model.	PW		OSPE/ PBL
100.	Differentiate between anatomical crown, clinical crown, anatomical root and clinical root.	IL, SGS	✓	BCQs
101.	Understand the individual functions and the featural differences that exist among incisors, canines, premolars, and molars.	IL, SGS	✓	BCQs
102.	Identify line angle and point angles on surface of tooth	IL, PW	✓	OSPE
103.	Identify the various anatomical landmarks of teeth. -Elevations on tooth -Depressions on tooth	IL, PW		BCQs, OSPE
104.	To define and landmarks seen on the surface of root	IL	✓	BCQs
105.	Assess the age of dentition from models and radiographs.	PW		OSPE
106.	Identify anatomical landmarks on tooth	IL, SGS	✓	BCQs, OSPE
107.	Study the physiological considerations of form and function including: - Embrasure, Contact point, Interproximal space, Height of contour, Lobes	IL, DEMO		BCQs
108.	Define curve of Spee, curve of Wilson, sphere of Monson.	IL	✓	BCQs
109.	Identify anatomic features of Maxillary and mandibular central and lateral incisors.	IL, SGS		BCQs, SEQs
110.	Compare maxillary central incisors with maxillary lateral incisors	IL, SGS		BCQs, SEQs
111.	Compare maxillary incisors with their mandibular incisor counterparts	IL		BCQs, SEQs

112.	Recognize and identify the anatomic structure and landmarks of the canine.	IL		SEQs
113.	Compare maxillary and mandibular canines and identify each.	IL		BCQs, SEQs
114.	Draw five aspects of each tooth.	PW,		SEQs, CQ
115.	Carve the morphological features of maxillary and mandibular anterior teeth on wax blocks.	PW		
116.	Enlist the derivatives of germ layers.	IL	✓	BCQs, SEQs,
117.	Discuss the derivatives of the branchial arches, pouches and cleft	IL	✓	CQ
118.	Define primary epithelial band, vestibular and dental lamina.	IL, SGS		BCQs, SEQs
119.	Understand the complexity of ectodermal–mesenchymal interactions during tooth development.	IL		CQ
120.	Describe the bud, cap, and bell stages and the various layers found in each.	IL		BCQs, SEQs
121.	Describe the following terms: Enamel cord, Enamel niche, Enamel septum Enamel navel Enamel Knot	IL		BCQs, SEQs
122.	Discuss the role of: Dental follicle, Dental papilla, Dental lamina, Hertwig's epithelial root sheath	IL		BCQs, SEQs
123.	Identify developmental anomalies related to different stages of tooth development.	IL		BCQs
124.	Discuss the process of root formation	IL		SEQs
125.	Study and identify histological features of bud stage, cap stage and bell stage.	PW		OSPE
126.	Discern the composition, classification and main structural features of bone.	IL	✓	OSPE, BCQs, SEQs,
127.	Comprehend the structure and origin of cell types seen in bone.	IL	✓	SEQs
128.	Appreciate how the structure of bone cells is related to their function.	IL	✓	SEQs
129.	Describe the formation of osteoblast and osteoblasts.	IL	✓	SEQs
130.	Discuss role of different hormones on the structure of bone.	IL	✓	SEQs, BCQs
131.	Discuss the process of resorption and formation of bone during remodeling	IL	✓	SEQs
132.	Draw the histological slides of bone, including the different types of lamellae, osteon.	PW	✓	OSPE
133.	Understand the basic structure of osteoclast		✓	
134.	Define Alveolar bone.	IL		BCQs

135.	Classify Alveolar bone.	IL		CQ
136.	Describe the nature of alveolar bone proper and supporting bone.	IL		BCQs
137.	Study parts of alveolar process.	PW		OSPE
138.	Describe the histological structure of alveolar bone proper.	PW		OSPE

Commencement of 1ST Module		Weekly Schedule of Module I ANATOMY		
Activity	**Week**	**Lecture 1**	**Lecture 2**	**Lecture 3**
Academic Session – BDS First Professional	Week- 1	Introduction to human body, discuss the anatomical terms (8)	Identify planes and sections (9)	Describe the basic structure of cell (1)
	Week- 2	Describe the different types of organelles and inclusion bodies (2)	Describe surface modification of cell, define different types of cell junctional complex (3, 4)	Describe the microscopic features of epithelial tissues (I) (simple) (14)
	Week- 3	Explain cell cycle, Differentiate between mitosis and meiosis (5, 6, 7)	Describe the microscopic features of epithelial tissues(stratified) (II) (14)	Classification of bone (10)
	Week- 4	Discuss the uterine and ovarian cycle (30)	Describe the microscopic features of connective tissues (I) (16)	Describe the microscopic features of connective tissues (II) (16)
	Week- 5	Describe oogenesis and spermatogenesis I (29)	Classification of muscles (10)	Describe the microscopic features of skeletal, cardiac and smooth muscles (18)
	Week- 6	Describe oogenesis and spermatogenesis II (29)	Describe the classification & microscopic features of different types of cartilage (10, 20)	Introduction to nervous system (11)
	Week- 7	Describe the phases of fertilization in events of 1st week of development (31)	Describe the microscopic features of compact and spongy bone (22)	Discuss the events of second week of development (32)
	Week- 8	Describe the events of 3rd week of development (33)	Discuss the fate of primitive streak and related abnormalities (35)	Differentiate between gross and microscopic features of artery, vein, and capillaries (24)
	Week- 9	Describe the 4th week of development (36)	Classification of joints (10)	Describe the development of placenta I (37)
	Week10	Enlist events from 5th – 8th week of development (38)	Describe the development of placenta II (37)	Enlist events of fetal period (39)
	Week 11	Describe the process and types of Twin pregnancy and sites of ectopic pregnancy (40)	Discuss the factors causing Teratogenesis (41)	Integumentary System (27)
	Week 12	Revision	Revision	Revision
	Week-13&14	**THEORY AND VIVA EXAMINATION**		

Commencement of 1ST Module		Weekly schedule of Module I PHYSIOLOGY	
Activity	**Week**	**Lecture 1**	**Lecture 2**
Academic Session – BDS First Professional	Week 1	Introduction to Physiology (42, 43, 45)	Homeostasis (43, 44)
	Week 2	Composition & function of cell membrane (46, 47)	Functions of organelles & nucleus (48)
	Week- 3	Genetics & protein synthesis (48)	Membrane transport, Membrane Potential &Action Potential (49, 50, 54, 55, 56)
	Week- 4	Classification & properties of nerve fiber. (51, 52, 53)	Synapse & NMJ (57, 58)
	Week 5	Muscle contraction 1 (59)	Muscle contraction II (59)
	Week- 6	Introduction & Composition, function of blood & plasma protein (60)	RBC & Erythropoiesis (61,62,63)
	Week- 7	Anemia (types, causes & treatments) (64)	White Blood Cell (65)
	Week- 8	Immunity – 1 (66)	Immunity – 2 (66)
	Week- 9	Platelets & Coagulation (67, 68)	Blood groups, Blood transfusion & transfusion reactions (69, 70)
	Week-10	Revision	Revision
	Week-11 & 12	Revision	Revision
	Week-13 & 14	**THEORY AND VIVA EXAMINATION**	

		Weekly Schedule of Module I BIOCHEMISTRY	
Activity	**Week**	**Lecture-1**	**Lecture-2**
Academic Session – BDS First Professional	Week-1	Biochemical aspects of cell (71, 74)	Biochemical composition of cell membrane (71)
	Week-2	Membrane transport (75)	pH Buffer system (77)
	Week-3	Buffering capacity & H.H equation (78)	Chemistry of nucleotide (80)
	Week-4	Chemistry of nucleic acid-1 (82)	Chemistry of nucleic acid-2 (82)
	Week-5	Chemistry of carbohydates-1 (84)	Chemistry of carbohydates-2 (84)
	Week-6	Properties & Biomedical importance of carbohydrates-1 (84)	Properties & Biomedical importance of carbohydrates-2 (85)
	Week-7	Monosaccharides-1 (86)	Monosaccharides-2 (86)
	Week-8	Disaccharides (87)	Oligosaccharides (88)
	Week-9	Polysaccharides-1 (89)	Polysaccharides-2 (89)
	Week-10	Polysaccharides-3 (89)	Student presentation
	Week-11	Student presentation	Student presentation
	Week-12	Revision	Revision
	Week 13 & 14	**THEORY AND VIVA EXAMINATION**	

Commencement of 1ST Module		Weekly Schedule of Module I ORAL BIOLOGY	
Activity	**Week**	**Lecture 1**	**Lecture2**
Academic Session – BDS First Professional	Week- 1	Introduction to Oral Biology (90, 91, 92, 93)	Tooth morphology I (95, 97, 98)
	Week- 2	Tooth morphology II (100, 101, 102, 103, 104)	Eruption sequence, (96)
	Week- 3	Orofacial Musculature (108, 109)	Maxillary Incisors (110)
	Week- 4	Mandibular Incisors (111)	Max & Mand Laterals Incisors (110, 111)
	Week- 5	Max & Mand Canines (112, 113)	Embryology I (117)
	Week- 6	Embryology II (118)	Tooth development I (119, 120, 121)
	Week- 7	Development of tooth II (122)	Development of tooth III (123, 124)
	Week- 8	Root Formation (125)	Bone I (127, 128, 129)
	Week- 9	Bone II (130, 131, 132)	Alveolar process (135, 136, 137)
	Week-10	Test on tooth morphology	Test on tooth development
	Week-11	Test on Embryology	Test on Bone
	Week-12	Revision of histology	Revision of Spots
	Week 13 & 14	**THEORY AND VIVA EXAMINATION**	

Module II

ANATOMY		Mode of Teaching	Online Learning	Mode of Assessment
1.	Discuss the components of reticuloendothelial system	IL	✓	BCQ
2.	Describe the macroscopic and microscopic features of lymphoid organs: a. Lymph node b. Tonsils c. Thymus d. Spleen	IL	✓	BCQ, SEQ
3.	Identify the microscopic features of lymphoid organs on given slides	PW		OSPE
4.	Identify the skeleton of the upper limb	SGIS		OSPE
5.	Name the muscles of the pectoral region, arm, and forearm	SGIS	✓	BCQ, OSPE
6.	Correlate the location and structure of cubital fossa with its clinical significance	SGIS	✓	BCQs, OSPE
7.	Relate the extent and branches of the brachial artery with its clinical significance	SGIS	✓	BCQ
8.	Identify the skeleton of the lower limb	SGIS		OSPE
9.	Name the muscles of the gluteal region, and thigh	SGIS	✓	BCQs, OSPE
10.	Identify the bones of rib cage	SGIS		OSPE
11.	Discuss the boundaries and contents of mediastinum and thoracic cage	SGIS	✓	BCQ
12.	Discuss the gross anatomy of the heart	IL	✓	BCQs, OSPE
13.	Discuss the development of the cardiovascular system	IL	✓	BCQs, OSPE
14.	Discuss the great vessels of head and neck	IL	✓	BCQs, OSPE
15.	Describe the gross morphology and blood supply of nose	IL	✓	BCQ, SEQ
16.	Relate the location and structure of paranasal air sinuses with their clinical significance	IL	✓	BCQ, SEQ & OSPE
17.	Describe the gross morphology of pharynx	SGIS	✓	BCQ, SEQ
18.	Explain the macroscopic features of larynx (cartilages, joints, ligaments, membranes, cavity, muscles and neurovascular supply)	SGIS	✓	BCQ, SEQ & OSPE
19.	Describe the gross morphology of trachea and bronco-pulmonary segments	IL	✓	BCQ

20.	Identify the anatomical structures related to cardiovascular and respiratory systems on a chest X- ray	SGIS		OSPE
21.	Describe the microscopic features of upper and lower respiratory tract	IL	✓	BCQs, OSPE
22.	Identify the microscopic features of the respiratory system (trachea & lungs) on given slides	PW		OSPE
23.	Name the parts of gastrointestinal tract	SGIS	✓	OSPE
24.	Describe the gross morphology of the oral cavity and tongue	IL	✓	BCQ, SEQ
25.	Describe the microscopic features of tongue	IL	✓	BCQs, SEQ
26.	Identify the microscopic features of tongue on a given slide	PW		OSPE
27.	Describe the gross structure of salivary glands (Parotid, submandibular and sublingual)	IL	✓	BCQ, SEQ, OSPE
28.	Describe the microscopic features of salivary glands	IL	✓	BCQ, SEQ
29.	Identify the microscopic structures of Parotid, submandibular and sublingual glands on given slides	PW		OSPE
30.	Discuss the location and structure of the liver, pancreas and gall bladder	SGIS	✓	OSPE
31.	Describe the microscopic features of the hepatobiliary system	IL	✓	BCQ
32.	Identify the microscopic features of the hepatobiliary system on a given slide	PW		OSPE
33.	Name the organs of the urinary system	SGIS	✓	OSPE
34.	Describe the osteology of exterior of skull (Norma verticalis, occipitalis, frontalis and basalis)	SGIS		OSPE
35.	Explain the osteology of the interior of skull (vault, anterior, middle and posterior cranial fossae)	SGIS		OSPE
36.	Identify the foramina of skull and the structures passing through them	SGIS		OSPE, BCQ, SEQ
37.	Explain the external and internal attachments of skull	SGIS		OSPE, BCQ
38.	Describe the development of: a. Skull b. Cervical vertebrae c. Pharyngeal apparatus d. Face d. Tongue	IL	✓	SEQ, BCQ, OSPE

	e. Palate			
39.	Correlate the features and attachments of maxilla with its clinical significance	SGIS		BCQ, SEQ, OSPE
40.	Describe the gross features of soft palate	IL	✓	OSPE, BCQ
41.	Discuss the features of mandible and hyoid bone	SGIS		OSPE, BCQ
42.	Describe the changes that occur in the mandible in different age groups (child, young, old)	SGIS		BCQ
43.	Identify the features of cervical vertebrae	SGIS		OSPE, BCQ
44.	Describe the scalp and superficial temporal region	IL	✓	BCQ, SEQ
45.	Relate the attachments of facial muscles with their actions	IL	✓	BCQ, OSPE
46.	Explain the neurovascular supply of face, with course and branches of facial artery	IL	✓	BCQ, SEQ & OSPE
47.	Describe the attachments, actions and neurovascular supply of the muscles of mastication	IL	✓	BCQ, SEQ, & OSPE
48.	Correlate the structure of temporomandibular joint with its neurovascular supply and movements	IL	✓	BCQ, SEQ & OSPE
49.	Describe the boundaries, communications and contents of pterygopalatine and infratemporal fossae	IL	✓	BCQ, SEQ, & OSPE
50.	Discuss the parasympathetic ganglia present in head	IL	✓	BCQ, SEQ
51.	Demonstrate over simulated subject the surface markings of: a. Facial artery b. Common carotid artery c. External carotid artery d. Internal jugular vein e. External jugular vein f. Parotid gland and duct g. Submandibular duct	SGIS		OSPE
52.	Identify the normal anatomical structures visible on radiographs of head and neck	SGIS		OSPE
PHYSIOLOGY				
53.	Describe the functional organization/lay out of cardiovascular system.	IL		SEQs, BCQs

54.	Explain cardiac action potential and spread of impulse through different chambers of heart.	IL		SEQs, BCQs
55.	Enumerate different heart sounds and describe mechanism of production of heart sounds.	IL, SGS		SEQs, BCQs
56.	Define ECG. Discuss its various intervals and segments along with physiological basis.	IL, PW		OSPE
57.	Describe various leads of ECG.	PW		OSPE
58.	Define hemodynamics and explain laws governing the flow of blood through blood vessel wall.	IL		SEQs, BCQs, VIVA
59.	Define microcirculation. Elaborate upon the forces of capillary membrane at the arterial and venous end.	IL, SGS		SEQs, BCQs
60.	Define cardiac output and venous return. Enumerate factors affecting cardiac output and venous return.	IL		SEQs, BCQs,
61.	Define blood pressure and discuss mechanisms regulating it.	PBL		SEQs, BCQs
62.	Define cardiac cycle. Explain its phases with a suitable diagram.	IL, PW		SEQs, BCQs, OSPE
63.	Discuss the functional organization of respiratory system.	IL		SEQs, BCQs
64.	Explain mechanics of respiration.	IL		SEQs, BCQs
65.	Discuss alveolar ventilation/perfusion ratio with its abnormalities.	IL		SEQs, BCQs
66.	Enumerate lung volumes and capacities with its values.	PW		SEQs, BCQs
67.	Explain diffusion of gases with various applicable laws.	IL, SGS		SEQs, BCQs
68.	Discuss mechanism of transport of oxygen and carbon dioxide with graphical representations.	SGS, PW		BCQs, OSPE
69.	Describe the regulation of respiration.	IL		SEQs, BCQs,

				VIVA
70.	Define hypoxia and discuss its various types with examples.	PBL		SEQs, BCQs
71.	Explain respiratory adaptations during exercise.	IL		SEQs, BCQs
72.	Describe functional organization of renal system.	IL		SEQs, BCQs
73.	Discuss the structure and function of a nephron.	IL, SGS		SEQs, BCQs
74.	Define GFR and discuss factors regulating it.	IL		SEQs, BCQs
75.	Explain various mechanisms of tubular reabsorption and secretion.	IL		SEQs, BCQs
76.	Describe renal clearance.	SGS		SEQs, BCQs
77.	Describe countercurrent mechanism for formation of concentrated urine.	IL		SEQs, BCQs, CP
78.	Describe functional organization of gastrointestinal tract.	IL,	✓	SEQs, BCQs,
79.	Explain different characteristics features of GI smooth muscles.	IL, PW	✓	SEQs, BCQs, OSPE
80.	Discuss enteric nervous system.	IL	✓	SEQs, BCQs
81.	Discuss properties, functions, regulation and applied aspects of salivary secretion.	PBL	✓	SEQs, BCQs
82.	Enumerate GIT secretions and explain mechanism of synthesis of secretion and their regulation.	IL	✓	SEQs, BCQs
83.	Discuss GIT motility and its reflexes.	IL		SEQs, BCQs
84.	Discuss the phases of swallowing and swallowing reflex in detail.	IL, SGS		SEQs, BCQs
85.	Discuss the stages of vomiting and vomiting reflex in detail.	IL, SGS		SEQs, BCQs
86.	Discuss the regulation of gastric emptying & phases of gastric secretion	IL, SGS		SEQs, BCQs

87.	Describe functions of liver and gall bladder.	IL	✓	SEQs, BCQs
88.	Discuss mechanism of synthesis of pancreatic secretions and its regulation.	IL	✓	SEQs, BCQs
89.	Explain functions of stomach small and large intestine.	IL, SGS	✓	SEQs, BCQs
90.	Discuss GI disorders.	PBL	✓	SEQs, BCQs
BIOCHEMISTRY				
91.	Perform the detection of different proteins in given solution	PW	✓	OSPE
92.	Discuss the definition classification & importance of amino acids	IL, SGS	✓	BCQS, SEQS
93.	Discuss the definition classification & importance of proteins	IL, SGS	✓	BCQS, SEQS,
94.	Discuss the structure physical & chemical properties of amino acids	IL, SGS	✓	BCQS, SEQS
95.	Discuss the importance of amino acids and maintenance of body pH	IL, SGS	✓	BCQS, SEQS,
96.	Perform the separation of amino acids by paper chromatography	PW	✓	OSPE
97.	Discuss the structure level of protein & clinical importance	IL, SGS	✓	BCQS, SEQS,
98.	Discuss the plasma protein && immunoglobulin's clinical importance	IL, SGS	✓	BCQS, SEQS
99.	Discuss the different principles of Spectrophotometry	PW	✓	OSPE
100.	Discuss the importance of protein & nutrition, kwashiorkor & marasmus	IL, SGS	✓	BCQS, SEQS
101.	Discuss the definition & classification of lipids	IL, SGS	✓	BCQS, SEQS
102.	Discuss the biomedical importance of lipids	IL, SGS	✓	BCQS, SEQS
103.	Perform the detection of different lipids in given solution	PW	✓	OSPE
104.	Discuss the definition & classification of fatty acids	IL, SGS	✓	BCQS, SEQS
105.	Discuss the chemistry of essential fatty acids & their biomedical importance	IL, SGS	✓	BCQS, SEQs
106.	Discuss the importance of cholesterol & lipoproteins	IL, SGS	✓	BCQS, SEQS
107.	Discuss the chemical & physical properties of triglycerides	IL, SGS	✓	BCQS, SEQS
108.	Discuss the Identification of fat (Saponification, Iodine No.)	IL, SGS	✓	BCQS, SEQS

109.	Discuss the rancidity its types & Biomedical importance	IL, SGS	✓	BCQS, SEQS
110.	Discuss the structure, function & types of hemoglobin	IL, SGS	✓	BCQS, SEQS
111.	Perform the estimation of HbA1c	PW	✓	OSPE
112.	Discuss hemoglobinpathies & their Biomedical causes, Thalassemia, Hbs	IL, SGS	✓	BCQS, SEQ
113.	Discuss the factor affecting & regulating the oxygen binding capacity hemoglobin	IL, SGS	✓	BCQS, SEQS, CP
114.	Discuss the chemistry & biosynthesis of porphyrins & their clinical importance	IL, SGS	✓	BCQS, SEQS,
115.	Perform the estimation of Serum Bilirubin	PW	✓	OSPE
116.	Discuss the degradation of heme formation of bile pigment, it's types, transport & execration	IL, SGS	✓	BCQS, SEQS,
117.	Discuss the mechanism of development of different types of jaundice	IL, SGS	✓	BCQS, SEQS, CP
ORAL BIOLOGY				
118.	Describe and identify the buccal, lingual, mesial, distal, and occlusal aspect for maxillary 1st & 2nd premolars	IL, SGS		BCQs, SEQs, OSPE
119.	Describe the traits that are useful in distinguishing permanent maxillary first premolar from the maxillary second premolar	IL, SGS		BCQs, SEQs, OSPE
120.	Describe and identify the buccal, lingual, mesial, distal, and occlusal surfaces for mandibular 1st and 2nd premolars.	IL, SGS		BCQs, SEQs
121.	Define the features that are helpful to distinguish mandibular first premolar from the mandibular second premolar	IL, SGS		BCQs, SEQs, OSPE
122.	Compare morphology of maxillary premolars with mandibular premolars	IL, SGS		BCQs, SEQs, OSPE,
123.	Sketch five aspects of each tooth.	PW	✓	OSPE
124.	Learn to identify individual tooth models.	PW		OSPE
125.	Carve the morphological features of premolars on wax blocks.	PW		OSPE
126.	Discuss the organic and inorganic composition and the physical features of enamel.	IL, SGS	✓	BCQs, SEQs,

127.	Discern the features of enamel crystallites and their orientation and apprehend how the structure of enamel withstands the forces of mastication.	IL	✓	BCQs
128.	Understand the concept of enamel prism, rod sheath and inter-rods, aprismatic enamel.	IL	✓	BCQs, SEQs
129.	Describe the different patterns and direction of enamel rods.	IL	✓	BCQs, SEQs
130.	Comprehend the histological features of enamel including incremental lines, bands of Hunter and Schreger, Perikymata, Gnarled Enamel.	IL	✓	BCQs, SEQs
131.	Differentiate between enamel spindles, enamel tuft and enamel lamellae.	IL	✓	BCQs, SEQs
132.	Discuss the significance of Enamel-Dentine Junction.	IL	✓	BCQs, SEQs OSPE
133.	Enlist the age changes in enamel.	IL	✓	SEQs, OSPE
134.	Describe the life cycle of Ameloblast and related developmental defects including Amelogenesis Imperfecta.	IL	✓	SEQs, OSPE
135.	Interpret the life cycle of ameloblast with the help of a schematic diagram.	SGS, PW	✓	OSPE
136.	Recognize the histologic structure of enamel.	PW	✓	OSPE
137.	Describe the organic and inorganic composition of dentine.	IL	✓	BCQs
138.	Define the physical features of dentine.	IL	✓	BCQs
139.	Explain the curvature, structure, and contents of dentinal tubules.	IL	✓	BCQs, SEQs
140.	State the different types of dentine including primary, secondary, tertiary, hyaline and granular layer.	IL	✓	BCQs, SEQs, OSPE
141.	Enlist the differences between mantle and circumpulpal dentine.	IL	✓	SEQs, OSPE
142.	Interpret the different types of incremental lines seen in dentine.	IL	✓	BCQs, SEQs,
143.	Understand the age changes that occur in dentine.	IL	✓	BCQs

144.	Enumerate the theories of dentine sensitivities.	IL	✓	SEQs
145.	Explain the process of dentinogenesis including patterns of mineralization.	IL, SGS	✓	BCQs
146.	Compare the processes of amelogenesis and dentinogenesis.	IL, SGS		BCQs
147.	Draw the histological features of dentine	PW		OSPE
148.	Explain the composition and functions of Dental Pulp.	IL	✓	BCQs, SEQs,
149.	State the zones of dental pulp.	IL	✓	SEQs
150.	Discuss the role of various cell types seen in pulp.	IL	✓	SEQs
151.	Explain the blood supply & nerve supply of dental pulp.	IL	✓	BCQs
152.	Study age changes in pulp.	IL	✓	SEQs
153.	Draw the histological picture of zones of dental pulp.	PW	✓	OSPE
154.	Classify salivary glands according to location, size, structure and type of secretion.	IL, PBL	✓	BCQs, SEQs, OSPE
155.	Explain the sympathetic and parasympathetic nerve supply and blood supply of major salivary glands.	IL	✓	BCQs, SEQs, OSPE
156.	Enlist the types of secretory acinar cells and ductal system.	IL, PBL	✓	BCQs, SEQs, OSPE
157.	Differentiate between serous and mucous acini.	IL		BCQs, SEQs, OSPE
158.	Discuss the physiology of saliva including its composition, flow rate, functions, formation and ductal modification.	IL, SGS	✓	BCQs, SEQs, OSPE
159.	Enlist the age changes in salivary glands.	IL	✓	BCQs
160.	Interpret the general organization of the salivary gland.	IL, PBL	✓	OSPE
161.	Identify the secretory and ductal elements in a mixed salivary gland.	IL		OSPE
162.	Draw the serous, mucous cells and the other ductal cells of salivary glands	PW		OSPE
163.	Classify the types of joints.	IL, PBL	✓	SEQs
164.	Describe the structure of TMJ.	IL	✓	BCQs
165.	Describe the different components of TMJ including capsule, condyle, articular fossa,	IL, PBL	✓	BCQs, SEQs, OSPE

	synovial membrane.			
166.	Describe the role of different ligaments associated with TMJ.	IL	✓	BCQs
167.	Comprehend the biomechanics of the joints including movements initiated by muscles of mastication.	IL, PBL	✓	BCQs
168.	Describe the different types of nerve endings present in TMJ.	IL	✓	BCQs
169.	State the neurovascular supply of TMJ.	IL	✓	BCQs
170.	Describe the mesenchymal facial processes around the developing mouth	IL		SEQs
171.	Describe the role of facial processes in the formation of face.	IL		BCQs
172.	Discuss the developmental process of primary & secondary palate	IL		SEQs
173.	Discuss the mechanisms involved in elevation and fusion of the palatal shelves	IL		BCQs, SEQs
174.	Discuss the mechanisms causing formation of cleft lip & palate.	IL	✓	BCQs, SEQs
175.	Explain the environmental and genetic stimuli responsible for development of facial and palatal clefts.	IL	✓	BCQs, SEQs
176.	Discuss the process of mandible formation	IL		BCQs
177.	Describe the fate of Meckel's cartilage.	IL		SEQs
178.	Describe the process of maxilla formation	IL		BCQs
179.	Describe the processes involved in development of anterior two-third and post one-third of tongue and relate this to the innervation of the tongue once fully developed.	IL		BCQs, SEQs

Commencement of 2nd Module		Weekly Schedule of Module II ANATOMY		
Activity	**Week**	**Lecture 1**	**Lecture 2**	**Lecture 3**
Academic Session – BDS First Professional	Week- 1	Discuss the components of reticuloendothelial system (1)	Microscopic features of tonsils and thymus (2)	Microscopic features of spleen (2)
	Week- 2	Describe the scalp and superficial temporal region (44)	Describe the development of skull & cervical vertebrae (38)	Describe the boundaries, communication and contents of pterygopalatine fossa (49)
	Week- 3	Describe the development of pharyngeal apparatus I (38)	Describe the boundaries, communications and contents of the infratemporal fossa (49)	Describe gross morphology of nose & blood supply of nose (15)
	Week- 4	Describe the development of pharyngeal apparatus II (38)	Relate location and structure of Para nasal sinuses with their clinical significance (16)	Describe gross morphology of oral cavity and tongue(I) (24) Describe gross features of hard and soft palate (40)
	Week- 5	Describe the development of palate (38)	Describe gross morphology of oral cavity and tongue II (24)	Describe microscopic features of tongue (25)
	Week- 6	Development of tongue (38)	Gross features of salivary glands (27)	Microscopic features of salivary glands (28)
	Week- 7	Describe the facial muscles with their action (45)	Explain the neurovascular supply of face, with course and branches of facial artery (46)	Describe great vessels of head and neck (14)
	Week- 8	Describe the development of face (38)	Describe the development of palate (38)	Describe gross morphology of pharynx (17)
	Week- 9	Describe the morphology of larynx I (18)	Describe the morphology of larynx II (18)	Describe the gross morphology of trachea and bronchopulmonary segments (19)
	Week- 10	Describe the microscopic features of upper and lower respiratory tract (21)	Describe microscopic features of hepatobiliary tract and pancreas (31)	Describe the gross anatomy of heart (12)
	Week-11	Describe the development of heart (13)	Correlate the structure of temporomandibular joint with its neurovascular supply and movements (48)	Revision
	Week- 12	Revision	Revision	Revision
	Week-13 & 14	**THEORY AND VIVA EXAMINATION**		

Commencement of 2ND Module		Weekly Schedule of Module II PHYSIOLOGY		
Activity	**Week**	**Lecture 1**	**Lecture2**	
Academic Session – BDS First Professional	Week- 1	Introduction to CVS & Cardiac action potential (53, 54)	Cardiac contraction & Impulse conduction pathway (53, 54)	
	Week- 2	Electrocardiogram (ECG) (56, 57)	Cardiac cycle (62)	
	Week- 3	Heart sounds and murmurs (55)	Introduction to haemodynamics & functions of blood vessels (58)	
	Week- 4	Cardiac output and venous return (60)	Blood pressure and its regulation (61)	
	Week- 5	Micro circulation (59)	Functional organization of respiratory system & pulmonary ventilation. (63, 64, 66)	
	Week- 6	Alveolar ventilation & ventilation perfusion ratio (V/P Ratio) (65)	Diffusion of gases (67)	
	Week- 7	Transport of Oxygen & Carbon dioxide (68)	Regulation of respiration (69)	
	Week - 8	Hypoxia and its types (70)	Respiratory adaptations during exercise (71)	Introduction to renal system & Nephron & GFR & its regulation (72, 73, 74)
	Week- 9	Filtration, reabsorption & secretion (73, 75)	Renal clearance (76)	Countercurrent mechanism (77)
	Week- 10	Introduction to GIT, GI muscle function & Enteric nervous system (78, 79, 80)	GIT secretions, motility and reflexes (82, 83, 84)	Saliva &Vomiting (81, 85)
	Week- 11	Regulation of gastric emptying & phases of gastric secretion (86)	Functions of stomach, small & large intestine. (89)	Functions of gall bladder, liver & pancreatic secretion. (87, 88)
	Week- 12	GIT disorders (90)	Revision	Revision
	Week- 13 & 14	**THEORY AND VIVA EXAMINATION**		

Commencement of 2ND Module		Weekly Schedule of Module II BIOCHEMISTRY	
Activity	**Week**	**Activity**	**Week**
Academic session – BDS First Professional	Week- 1	Definition, classification & importance of amino acids 91)	Definition classification & importance of proteins (92)
	Week- 2	Structure physical & chemical properties of amino acids (93)	Importance of amino acids and maintenance of body pH (94)
	Week- 3	Structure level of protein & clinical importance (96)	Plasma protein & clinical importance (97)
	Week- 4	Immunoglobulin's & clinical importance (97)	Importance of protein & nutrition, kwashiorkor & marasmus (98)
	Week- 5	Define & classify lipids (100)	Biomedical importance of lipids (101)
	Week- 6	Definition & classification of fatty acids (103)	Essential fatty acids & their biomedical importance (104)
	Week- 7	Importance of cholesterol & lipoproteins (105)	Chemical & physical Properties of triglycerides (106)
	Week- 8	Identification of fat (Saponification), Iodine No. (107)	Rancidity its types & Biomedical importance (108)
	Week- 9	Structure, function & types of hemoglobin (109)	Hemoglobinopathies& their Biomedical causes, Thalassemia, Hbs (111)
	Week- 10	Factor affecting & regulating the oxygen binding capacity hemoglobin (112)	Chemistry & Biosynthesis of porphyrins& their clinical importance (113)
	Week- 11	Degradation of heme formation of bile pigment, it's types, transport & execration-1 (115)	Degradation of heme formation of bile pigment, it's types, transport & execretion-2 (115)
	Week- 12	Mechanism of development of different types of jaundice (116)	Revision
	Week- 13 &14	**THEORY AND VIVA EXAMINATION**	

Commencement of 2ND Module		Weekly Schedule of Module II Oral Biology	
Activity	**Week**	**Lecture 1**	**Lecture 2**
Academic Session – BDS First Professional	Week- 1	Maxillary premolars (117, 118, 121)	Mandibular Premolars (119, 120, 121)
	Week- 2	Enamel Structure I (125, 126, 127)	Enamel structure II (128, 129, 130, 131, 132)
	Week- 3	Amelogenesis I (133)	Amelogenesis II (133)
	Week- 4	Dentine I (135, 136, 137, 138, 139)	Dentine II (140, 141, 142, 143)
	Week- 5	Dentinogenesis I (144)	Dentinogenesis II (145)
	Week- 6	Dental Pulp (147, 148, 149, 150, 151)	Salivary glands I (153, 154, 155)
	Week- 7	Salivary glands II (156, 157, 158, 160)	TMJ I (162, 163, 164)
	Week- 8	TMJ II (165, 166, 167, 168)	Development of Face (169, 170)
	Week- 9	Development of Palate (171, 172)	Cleft Lip and Palate (173, 174)
	Week- 10	Development of Mandible (175, 176)	Development of Maxilla (177)
	Week- 11	Development of Tongue (178)	Test on Enamel
	Week- 12	Revision of histology	Revision of Spots
	Week- 13 &14	**THEORY AND VIVA EXAMINATION**	

MODULE III

ANATOMY		Mode of Teaching	Online Learning	Mode of Assessment
1.	Explain the general layout of the nervous system and its classification.	IL	✓	BCQs
2.	Discuss the gross anatomy & cross sections of spinal cord with blood supply.	IL	✓	BCQs, SEQs
3.	Discuss the ascending tracts of spinal cord with their functions and clinical correlates.	IL	✓	BCQs, SEQs
4.	Discuss the descending tracts of the spinal cord with their functions and clinical correlates.	IL	✓	BCQs, SEQs
5.	Explain the gross structure of brain stem (medulla, pons and midbrain).	SGIS		BCQs, SEQs & OSPE
6.	Discuss the cross sections of brain stem (medulla, pons and midbrain) at different levels with clinical correlates.	IL	✓	BCQs, SEQs & OSPE
7.	Discuss in detail cranial nerves I – XII.	IL	✓	BCQs, SEQs & OSPE
8.	Discuss the gross structure of cerebellum and fibers associated with it.	IL	✓	BCQs, SEQs & OSPE
9.	Explain the cranial meninges with their neurovascular supply and clinical correlates.	SGIS	✓	BCQs, OSPE
10.	Explain the Dural infoldings/ reflections (falx cerebri, tentorium cerebelli, falx cerebelli and sellar diaphragm).	SGIS	✓	BCQs, OSPE
11.	Relate the location and communications of Dural venous sinuses with their clinical significance.	SGIS	✓	BCQs, SEQs & OSPE
12.	Demonstrate the sulci and gyri of cerebrum on the given model.	SGIS		BCQs, OSPE
13.	Explain the functions of different cortical areas of cerebrum with their lesions.	SGIS	✓	BCQs, SEQs
14.	Describe the white matter (commissural, projection and association fibers) of brain.	IL	✓	BCQs
15.	Relate the parts of basal nuclei of the brain with clinical disorders.	IL	✓	BCQs
16.	Describe the gross structure of autonomic nervous system.	IL	✓	BCQs
17.	Describe the microscopic features of: a. Spinal cord b. Cerebellum c. Cerebral cortex	IL	✓	BCQs, SEQs

18.	Identify the microscopic features of spinal cord, cerebellum and cerebral cortex.	PW		OSPE
19.	Explain the ventricular system of brain with clinical correlates.	SGIS	✓	BCQs, SEQs, OSPE
20.	Describe the blood supply of the brain.	SGIS	✓	BCQs, SEQs, OSPE
21.	Describe the vertebral system of veins.	SGIS	✓	BCQs
22.	Explain the gross anatomical features of eye with its neurovascular supply.	SGIS	✓	BCQs, OSPE
23.	Describe the microscopic features of eye.	IL, PW	✓	OSPE
24.	Describe the extra-ocular muscles with their nerve supply and actions.	SGIS	✓	BCQs, SEQs, OSPE
25.	Identify the extra-ocular and facial muscles on a given model.	SGIS		OSPE
26.	Explain the gross features of ear (external, middle and internal) with its neurovascular supply and clinical correlates.	SGIS	✓	BCQs, SEQs, OSPE
27.	Describe the development of brain and spinal cord with its anomalies.	IL	✓	BCQs, SEQs, OSPE
28.	Discuss cervical fascia.	IL	✓	BCQs
29.	Explain the anterior and posterior triangles of the neck.	SGIS	✓	BCQs, SEQs, OSPE
30.	Describe the lymphatic drainage of head and neck.	IL	✓	BCQs
31.	Discuss the ganglia and plexus present in the neck.	IL	✓	BCQs
32.	Identify the muscles and joints in the pre-vertebral region of the neck.	SGIS		OSPE
33.	Describe the location, structure and blood supply of pituitary gland.	IL	✓	BCQs, SEQs
34.	Explain the location and structure of thyroid.	IL	✓	BCQs, SEQs
35.	Explain the location and structure of parathyroid gland.		✓	BCQs, SEQs
36.	Discuss the location and structure of endocrine pancreas.	IL	✓	BCQs
37.	Explain the location and structure of suprarenal glands.	IL	✓	BCQs
38.	Describe the developmental anatomy of the endocrine glands.	IL	✓	BCQs, SEQs
39.	Describe the microscopic features of endocrine glands.	IL	✓	BCQs, SEQs
40.	Identify the microscopic features of endocrine glands on the given slide.	PW		OSPE
41.	Demonstrate the examination of cranial	SGS		OSPE

	nerves over the simulated subject			
	PHYSIOLOGY			
42.	Describe the functional organization of central nervous system.	IL	✓	SEQs, BCQs
43.	Discuss synaptic transmission along with its disorders.	IL	✓	SEQs, BCQs
44.	Classify Sensory receptors.	IL, SGS		SEQs, BCQs
45.	Trace the sensory pathways.	IL		OSPE
46.	Describe pain physiology and its pathway.	IL,		SEQs, BCQs
47.	State the different types of headaches and briefly describe each of them.	IL		SEQs, BCQs
48.	Explain pyramidal and extrapyramidal system along with motor pathways.	IL		SEQs, BCQs
49.	Classify spinal reflexes and discuss in detail.	PW		SEQs, BCQs, OSPE
50.	Describe functions of basal ganglia along with its neurons.	IL		SEQs, BCQs
51.	Discuss functional organization of Autonomic nervous system.	IL	✓	SEQs, BCQs
52.	Explain the phenomenon of Reticular activating system and sleep in relationship to different waves of EEG.	IL		SEQs, BCQs, OSPE
53.	Discuss the different lobes and areas of cerebral cortex with their functions.	IL, IS		SEQs, BCQs
54.	Discuss functions of cerebellum with special reference to its neuronal circuitry.	IL		SEQs, BCQs
55.	Discuss physiological anatomy of eye and image forming mechanisms.	IL,		SEQs, BCQs
56.	Discuss photo transduction and visual processing.	IL, SGS		SEQs, BCQs, CP
57.	Discuss physiology of hearing.	IL,		SEQs, BCQs, CP
58.	Explain functions of vestibular system.	IL,		SEQs, BCQs
59.	Discuss physiology of gustation and	IL,		SEQs, BCQs, CQ

	olfaction.			
60.	Explain the protective mechanisms of brain.	IL, IS	✓	SEQs, BCQs
61.	Discuss the formation, circulation, and absorption of CSF.	IL, IS	✓	SEQs, BCQs
62.	Define endocrine secretions and enumerate different hormones and their mechanism of action.	IL		SEQs, BCQs
63.	Describe hormones of hypothalamus and pituitary gland.	IL, IS	✓	SEQs, BCQs
64.	Discuss parathyroid hormones and calcium metabolism.	IL, IS		SEQs, BCQs
65.	Describe functions of thyroid hormones and its disorders.	IL, IS	✓	SEQs, BCQs
66.	Describe functions of adrenal cortical hormones and its disorders.	IL, IS	✓	SEQs, BCQs
67.	Describe functions of adrenal medullary hormones and its disorders.	IL, IS	✓	SEQs, BCQs
68.	Discuss endocrine functions of pancreas and its disorders.	IL, PBL	✓	SEQs, BCQs
69.	Discuss skin and body temperature regulation.	IL, IS	✓	SEQs, BCQs
70.	Discuss male reproductive system.	IL, IS	✓	SEQs, BCQs
71.	Discuss female reproductive system.	IL, IS	✓	SEQs, BCQs
BIOCHEMISTRY				
72.	Discuss the definition of enzyme with classification	IL, SGS	✓	BCQs, SEQs
73.	Discuss the different types of Enzymes Specificities with examples.	PW	✓	OSPE
74.	Discuss the properties of enzymes	IL, SGS	✓	BCQs, SEQs
75.	Discuss the mode of action & regulation of enzyme	IL, SGS	✓	BCQs, SEQs
76.	Discuss the factors affecting enzymes activity	IL, SGS	✓	BCQs, SEQs
77.	Discuss the mechanism of action of different inhibitors of enzyme	IL, SGS	✓	BCQs, SEQs

78.	Discuss the isoenzyme clinical importance, application clinical & therapeutic uses of enzymes	IL, SGS	✓	BCQs, SEQs, CP
79.	Perform the analysis of normal and abnormal urine	PW	✓	OSPE
80.	Discuss the sources, Absorption, regulation, biomedical importance, clinical aspect of Na & K	IL, SGS	✓	BCQs, SEQs
81.	Discuss the sources, Absorption, regulation, biomedical importance, clinical aspect of Cl,PO_4 & Ca	IL, SGS	✓	BCQs, SEQs
82.	Discuss the sources, Absorption, regulation, biomedical importance, clinical aspect of iron & Zinc	IL, SGS	✓	BCQs, SEQs
83.	Discuss the sources, Absorption, regulation, biomedical importance, clinical aspect of Mg., selenium, iodine	IL, SGS	✓	BCQs, SEQs
84.	Perform milk analysis by separating different components	PW	✓	OSPE
85.	Discuss the sources, Absorption, regulation, biomedical importance, clinical aspect of copper, chromium, cadmium, manganese	IL, SGS	✓	BCQs, SEQs, CP
86.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin A & E	IL, SGS	✓	BCQs, SEQs
87.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspects/ deficiency of vitamin D, K	IL, SGS	✓	BCQs, SEQs
88.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin C	IL, SGS	✓	BCQs, SEQs
89.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin B1 & folic acid	IL, SGS	✓	BCQs, SEQs
90.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspect deficiency of Pyridoxine, riboflavin	IL, SGS	✓	BCQs, SEQs
91.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspect deficiency of nicotinic acid & biotin	IL, SGS	✓	BCQs, SEQs
92.	Discuss the sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin B12	IL, SGS	✓	BCQs, SEQs
93.	Perform CSF analysis	PW	✓	OSPE
94.	Discuss the gastric, pancreatic, bile juice/	IL, SGS	✓	BCQs, SEQs

	digestion & absorption carbohydrates			
95.	Discuss the digestion & absorption of protein and nucleic acid with clinical importance	IL, SGS	✓	BCQs, SEQs
96.	Discuss the digestion & absorption of lipids with clinical importance	IL, SGS	✓	BCQs, SEQs
97.	Discuss the gastric, pancreatic, intestinal and bile juices with their composition and clinical significance	IL, SGS	✓	BCQs, SEQs
ORAL BIOLOGY				
98.	Discuss the morphology of maxillary 1st Molar	IL		BCQs, SEQs
99.	Describe the morphology of maxillary 2nd& 3rd Molar	IL		BCQs, SEQs
100.	Describe the morphology of Mandibular 1stMolar	IL		BCQs, SEQs
101.	Describe the morphology of Mandibular 2nd& 3rdMolar	IL		BCQs, SEQs
102.	Compare the morphology of maxillary molars with mandibular molars	IL		SEQs
103.	Discuss the morphology of deciduous teeth & compare with permanent dentition	IL		SEQs
104.	Discuss the root canal morphology of all teeth	IL		SEQs
105.	Identify the landmarks of molars on tooth models	PW		OSPE
106.	Sketch five aspects of maxillary & mandibular 1st molars on graph	PW		SEQs, OSPE
107.	Carve the morphological feature of maxillary 1st molar using wax block	PW		OSPE
108.	Define the periodontal tissues including cementum, periodontal ligament, alveolar bone and gingiva.	IL	✓	BCQs
109.	Describe the composition of the periodontal Ligament.	IL	✓	BCQs
110.	Enlist the arrangement of the principal collagen bundles and their fibrils, the orientations and the mode of attachment of these fibers into tooth and bone.	IL	✓	BCQs, OSPE
111.	Describe the role of different cells present in PDL	IL	✓	BCQs, SEQs
112.	Discuss the changes that take place with age in the periodontal ligament.	IL	✓	BCQs
113.	Enlist the features that make PDL a	IL	✓	BCQs

	specialized Connective tissue.			
114.	Explain the blood and nerve supply of PDL.	IL	✓	BCQs
115.	Discuss the composition, functions and physical features of cementum.	IL		BCQs, SEQs
116.	Identify and describe the histological features of cementum including its types, distribution.	IL	✓	BCQs, SEQs
117.	Describe the lines of Salter	IL	✓	BCQs
118.	Discuss the importance of cementum–enamel and cementum-dentinal junction.	IL	✓	BCQs
119.	Differentiate between primary and secondary cementum.	IL	✓	SEQs
120.	Enlist age changes in cementum.	IL	✓	BCQs
121.	Describe the process of cementogenesis.	IL	✓	SEQs
122.	Discuss the fate of Hertwig root sheath	IL	✓	BCQs
123.	Study principle fibers of PDL	PW	✓	OSPE
124.	Draw types of Cemento-enamel Junction	PW	✓	SEQs
125.	Define oral mucosa.	IL	✓	BCQs
126.	Describe the functions and components of oral mucosa.	IL	✓	SEQs
127.	Describe the types of oral mucosa, characterizing each type of epithelium associated with the oral cavity.	IL, PBL	✓	BCQs, SEQs
128.	Discuss the difference between keratinized & non-keratinized epithelium.	IL	✓	BCQs, SEQs
129.	Discern the structure of the basement membrane& lamina propria	IL	✓	SEQs
130.	Enlist the cell types present in epithelium and lamina propria.	IL	✓	BCQs, SEQs
131.	Describe the various types of keratinocytes and non-keratinocytes	IL		BCQs, SEQs
132.	Describe the blood supply and nerve supply of oral mucosa.	IL	✓	BCQs
133.	List the types and distribution of lingual papillae.	IL		BCQs, SEQs, OSPE
134.	Define the terms free gingiva, attached gingiva, inter dental gingiva	IL	✓	BCQs, SEQs, OSPE
135.	Apprehend the functions & composition of gingival Crevicular fluid	IL	✓	BCQs
136.	Identify origin and insertion of gingival	IL	✓	BCQs, OSPE

	fibers			
137.	Discuss the age-related changes in the oral mucosa along with clinical considerations.	IL	✓	SEQs
138.	Discuss the types of junctions seen in oral mucosa.	IL	✓	BCQs, SEQs, OSPE
139.	Differentiate between Sulcular and junctional Epithelium	IL	✓	SEQs
140.	Describe histological features of lining and masticatory mucosa.	PW	✓	OSPE
141.	Describe the specialized mucosa of tongue and different types of papillae.	PW	✓	OSPE
142.	Define mucogingival and dento-gingival junction.	IL, PW		OSPE
143.	Discuss the clinical parts of gingiva.	IL, PW		OSPE
144.	Enumerate the features of Pre-eruptive, Eruptive & Post-eruptive phases of tooth eruption	IL	✓	BCQs, SEQs
145.	Describe the various theories of tooth eruption	IL	✓	BCQs, SEQs
146.	Explain the pattern of shedding of teeth & factors involved in it	IL	✓	BCQs, SEQs,
147.	Discuss the process of repair and regeneration of dental hard and soft tissues.	IL	✓	BCQs
148.	Enlist features of following clinical anomalies: • Cleft Lip and Palate, • Treacher Collins syndrome, • Pierre Robin syndrome, • Down's syndrome, • Hemifacial microsomia, • Apert's syndrome, • Crouzon syndrome • De George Syndrome	IL	✓	BCQs, SEQs
149.	Define and classify Occlusion	IL	✓	BCQs
150.	Describe the following terms • Centric relation • Centric occlusion • Overjet • Overbite • Balanced occlusion • Group function	IL	✓	BCQs
151.	Describe the Incisor, Canine and Molar classification	IL	✓	BCQs

152.	Define Immunology	IL	✓	BCQs
153.	Describe the role of different antibodies	IL	✓	BCQs
154.	Discuss the composition, functions& physiology of saliva	IL	✓	BCQs
155.	Discuss the role of hormones affecting bone and calcium metabolism	IL	✓	BCQs
156.	Discuss the process of healing of bony fractures	IL	✓	BCQs
157.	Define the term pain	IL	✓	BCQs
158.	Describe the different pain pathways	IL	✓	BCQs

Commencement of 3rd Module		Weekly Schedule of Module III Anatomy		
Activity	**Week**	**Lecture 1**	**Lecture2**	**Lecture3**
Academic Session – BDS First Professional	Week- 1	Explain the general layout of the nervous system and its classification (1)	Discuss the gross anatomy of spinal cord and its blood supply (2)	Describe the microscopic features of spinal cord (17)
	Week- 2	Discuss the ascending tracts of spinal cord with their functions & clinical correlates (I) (3)	Discuss the ascending tracts of spinal cord with their functions & clinical correlates (II) (3)	Discuss the descending tracts of the spinal cord with their functions and clinical correlates (4)
	Week- 3	Discuss the cross section of spinal cord (2)	Discuss the cross section of medulla oblongata (6)	Discuss the gross & microscopic structure of cerebellum and fibers associated with it (8, 17)
	Week- 4	Discuss the cross section of Pons (6)	Discuss the cross section of Midbrain (6)	Describe white matter (commissural, projection & association fibers) of brain (14)
	Week- 5	Describe the development of spinal cord (27)	Relate parts of basal nuclei of brain with clinical disorders (15)	Describe the microscopic features of cerebrum (16)
	Week- 6	Introduction to cranial nerves, discuss CN I (57)	Cranial nerve II (7)	Describe the microscopic features of eye (58)
	Week- 7	Cranial nerve III, IV and VI (7)	Cranial nerve V (7)	Cranial nerve VII (7)
	Week- 8	Describe the development of brain 27)	Cranial nerve VIII (7)	Cranial nerve IX (7)
	Week- 9	Cranial nerve X (7)	Cranial nerve XI & XII (7)	Discuss cervical fascia (28)
	Week- 10	Describe the lymphatic drainage of head and neck (30)	Discuss the ganglia and plexus present in the neck 31)	Describe the location, structure & blood supply of pituitary gland 33)
	Week-11	Describe development & microscopic features of pituitary gland (38, 39)	Explain the location and structure of thyroid and parathyroid gland (35)	Describe development and microscopic features of thyroid and parathyroid gland (38, 39)
	Week-12	Discuss the location, structure, development & microscopic features of suprarenal gland (37, 38, 39)	Describe the location, structure, development and microscopic features of endocrine pancreas (36, 38, 39)	Revision
	Week-13 & 14	**THEORY AND VIVA EXAMINATION**		

Commencement of 3rd Module		Weekly Schedule of Module III PHYSIOLOGY	
Activity	**Week**	**Lecture 1**	**Lecture 2**
Academic Session – BDS First Professional	Week- 1	Functional organization of Nervous system (43)	Synaptic transmission and disorders (44)
	Week- 2	Sensory receptors (45)	ANS (51)
	Week- 3	Sensory pathways (46)	Motor pathways + Spinal reflexes (48, 49)
	Week- 4	Pain physiology and headache (47)	Basal ganglia + RAS, Sleep, EEG (50, 52)
	Week- 5	Cerebellum (53)	Vision and image forming (54)
	Week- 6	Photo-Transduction & visual processing (55)	Physiology of Hearing (56)
	Week- 7	Vestibular system (57)	Gustation & Olfaction (58)
	Week- 8	Introduction to endocrinology &mechanism of action of hormones (60)	Hypothalamus & pituitary (61)
	Week- 9	Parathyroid hormone & calcium Metabolism (61)	Thyroid hormone (62)
	Week-10	Adrenal cortex (63)	Adrenal medulla (64)
	Week- 11	Skin and temperature regulation (66)	Endocrine role of pancreas (65)
	Week- 12	Male reproduction (67)	Female reproduction (68, 69)
	Week- 13 &14	**THEORY AND VIVA EXAMINATION**	

Commencement of 3rd Module		Weekly Schedule of Module III Biochemistry	
Activity	**Week**	**Lecture-1**	**Lecture-2**
Academic Session – BDS First Professional	Week-1	Definition of enzyme with classification (73, 74)	Properties of enzymes (75)
	Week-2	Mode of action & regulation of enzyme (76)	Factors affecting enzymes activity (77)
	Week-3	Mechanism of action of different inhibitors of enzyme (78)	Isoenzyme clinical importance, application clinical & therapeutic uses of enzymes (79)
	Week-4	Sources, Absorption, regulation, biomedical importance, clinical aspect of Na & K (81)	Sources, Absorption, regulation, biomedical importance, clinical aspect of Cl, PO_4 & Ca (82)
	Week-5	Sources, Absorption, regulation, biomedical importance, clinical aspect of iron & Zinc (83)	Sources, Absorption, regulation, biomedical importance, clinical aspect of Mg., selenium, iodine (84)
	Week-6	Sources, Absorption, regulation, biomedical importance, clinical aspect of copper, chromium, cadmium, manganese (86)	Sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin A & E (87)
	Week-7	Sources, Absorption, regulation, biomedical role, clinical aspects/ deficiency of vitamin D, K (88)	Sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin C (89)
	Week-8	Sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin B1 & folic acid (90)	Sources, Absorption, regulation, biomedical role, clinical aspect deficiency of Pyridoxine, riboflavin (91)
	Week-9	Sources, Absorption, regulation, biomedical role, clinical aspect deficiency of nicotinic acid & biotin (92)	Sources, Absorption, regulation, biomedical role, clinical aspect deficiency of vitamin B12 (93)
	Week-10	Discuss digestion & absorption carbohydrates with their clinical disorder (95)	Digestion & absorption of protein and nucleic acid with clinical importance and their clinical disorder 95)
	Week-11-12	Digestion & absorption of lipids with clinical importance and their clinical disorder (97)	Discuss the gastric, pancreatic, intestinal & bile juices with their composition and clinical significance (98)
	Week-13 &14	**THEORY AND VIVA EXAMINATION**	

Commencement of 3rd Module		Weekly Schedule of Module III Oral Biology	
Activity	**Week**	**Lecture 1**	**Lecture 2**
Academic Session – BDS First Professional	Week- 1	Maxillary 1st molar (98)	Maxillary 2nd & 3rd molar (99)
	Week- 2	Mandibular 1st molar (100)	Mandibular 2nd & 3rd molar (101, 102)
	Week- 3	Primary Dentition (103)	Root Canal Morphology (104)
	Week- 4	PDL (108, 109, 110, 111, 112, 113, 114)	Cementum (115, 116, 117, 118, 119, 120)
	Week- 5	Cementogenesis (121, 122)	Oral Mucosa I (125, 126, 127)
	Week- 6	Oral Mucosa II (128, 129, 130, 131, 132, 133, 134)	Oral Mucosa III (135, 136, 137, 138, 139, 140, 141, 142, 143)
	Week- 7	Tooth Eruption & Shedding I (144, 145)	Tooth Eruption & Shedding II (146)
	Week- 8	Repair & Regeneration (147)	Syndromes of Head & Neck (148)
	Week- 9	Occlusion (149, 150)	Occlusion (151)
	Week-10	Oral Physiology (152, 153, 154, 155)	Oral Physiology (156, 157, 158)
	Week-11	Spotting review	Review on morphology
	Week-12	Revision of histology	Revision of Spots
	Week 13 & 14	**THEORY AND VIVA EXAMINATION**	

LEARNING RESOURCES

Department of Anatomy

Department of Physiology

Department of Biochemistry

Department of Oral Biology & Tooth Morphology

ANATOMY

BOOKS

1. Clinical Anatomy Seventh Edition by Richard Snell
2. Junqueira's Basic Histology: Text and Atlas, Latest Edition by Anthony Mescher
3. The Developing Human, Latest Edition, Clinically Oriented Embryology. Authors: Keith Moore T. V. N. Persaud Mark Torchia
4. Clinical Neuroanatomy, by Richard S. Snell, Latest edition.

E-BOOKS

1. BRS Cell Biology and Histology 6th Edition
2. BRS Gross Anatomy 5th Edition
3. Netter atlas of Human Anatomy
4. BRS Neuroanatomy 4th Edition
5. Difiores Atlas of Histology 11th Edition
6. Last Anatomy Regional and applied 9th Edition
7. Wheater's Functional Histology 5th Edition
8. Grant's Atlas of Anatomy 13th ed.
9. Gray's Anatomy 39th ed.
10. Neurohistology
11. Junqueira Basic Histology
12. Netter Clinical Anatomy
13. Langman's Medical Embryology 2003
14. Clinical Oriented Anatomy KLM
15. BRS Gross Anatomy by Kyung W Chung
16. BRS Cell Biology and Histology by Leslie P. Gartner
17. BRS Neuro-anatomy by Doughals J, Gould
18. High yield Embryology
19. BRS Embryology

20. Before we born embryology
21. The development human clinical oriented embryology 9th
22. High Yield Embryology
23. Thieme Atlas of Anatomy, General Anatomy and Musculoskeletal System
24. Text Book of Anatomy: Head and Neck by Visharm Sing

PHYSIOLOGY

BOOKS

1. Textbook of Medical Physiology, latest Edition. Authors: John Hall Arthur Guyton John Hall
2. Medical Physiology for Undergraduate Students, Latest Edition. Authors: Indu Khurana
3. Review of Medical Physiology (Lange Basic Science). By William F. Ganong
4. Human Physiology: From Cells to Systems, Latest Edition. By Lauralee Sherwood.

E-BOOKS

1. Sherwood Human Physiology 3rd Edition
2. Guyton text book of medical physiology 11th Edition
3. Guyton Text Book of Medical Physiology 12th Edition.
4. USMLE Step 1 Physiology (lecture notes)
5. Sherwood Human Physiology for cell to system 7th edition.
6. Medical Physiology 11th edition.
7. Ganong Review of Medical Physiology
8. BRS Physiology by Constanzo
9. Jaypee Essential of Medical Physiology
10. Principal Anatomy and Physiology by Totora
11. Pocket companion by Guyton
12. Medical physiology for undergraduate by Khurana
13. Medical Physiology: Principles for clinical Medicine

BIOCHEMISTRY

BOOKS

1. Harpers Illustrated Biochemistry (Lange Medical Book) by Robert K. Murray, David A. Bender
2. Biochemistry (Lippincott Illustrated Reviews Series) latest Edition by Denise R. Ferrier
3. Text book of Biochemistry with clinical correlations. Thomas M. Devein (Reference Book)

E-BOOKS

1. Harper the Biochemistry 26th
2. Lehniger principle of biochemistry 4th
3. USMLE Step 1 Biochemistry and Genetic (lecture notes)
4. USMLE Step 1 Biochemistry and Genetic (lecture notes)
5. Lippincott biochemistry 6th ed.
6. Text Book of Medical Biochemistry by Chatterjee 8th Edition.
7. BRS Biochemistry

ORAL BIOLOGY

BOOKS

1. Oral Anatomy, Histology and Embryology 5th Edition. Authors: Barry Berkovitz G. Holland Bernard Moxham G. Holland Bernard Moxham
2. Ten Cate's Oral Histology: Development, Structure, and Function. By Antonio Nanci, Arnold Richard Ten Cate. 9th Edition.
3. Oral Development and Histology. By James K. Avery
4. Orban's Oral Histology and Embryology. by S.N. Bhaskar, C.L. Anderson

E-BOOKS

1. Wheeler Dental Anatomy, Physiology and Occlusion 9th ed.
2. The development Human clinical oriented Anatomy

TIMETABLE

BAHRIA UNIVERSITY DENTAL COLLEGE-BUHSC-(K)

BDS FIRST PROFESSIONAL BATCH 2021-2024

Printed on:

DAY	08:30-09:30	09:30-10:30	10:30-11:00	11:00-13:00	13:00-14:00	14:00 -16:00
	Venue: lecture Hall F (6th Floor)			Lab Skills		Tutorial
MONDAY	ANATOMY	PHYSIOLOGY	BREAK	A.Oral Biology B.Biochemistry	BREAK	A. Anatomy B. Physiology
TUESDAY	PHYSIOLOGY	ANATOMY		A.Biochemistry B.Oral Biology		A-Physiology B-Anatomy
WEDNESDAY	BIOCHEMISTRY	ANATOMY		A.Anatomy B.Physiology		Communication Skills SHA
THURSDAY	ORAL BIOLOGY	BIOCHEMIST-RY		Oral Biology Tutorial		Biochemistry
FRIDAY	Library session	ORAL BIOLOGY		A- Physiology B- Anatomy		Combined Tutorial Anatomy

ACADEMIC SCHEDULE