



# **SREE BALAJI DENTAL COLLEGE AND HOSPITAL**

## **BACHELOR OF DENTAL SURGERY I BDS 2022-23**



**Velachery Main road, Narayanapuram, Pallikaranai, Chennai – 600 100**

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**Website: [www.sbdch.ac.in](http://www.sbdch.ac.in)**



# SREE BALAJI DENTAL COLLEGE AND HOSPITAL

## Personal Memoranda

**Affix Photo**

**Name** : \_\_\_\_\_

**Registration No.** : \_\_\_\_\_

**Address** : \_\_\_\_\_

**E Mail ID** : \_\_\_\_\_

**Mobile No.** : \_\_\_\_\_

**Date of Birth** : \_\_\_\_\_

**Blood Group** : \_\_\_\_\_

**Father Name** : \_\_\_\_\_

**Mother Name** : \_\_\_\_\_

**Guardian Name** : \_\_\_\_\_

**Year of Admission** : \_\_\_\_\_

**Year of Study** : \_\_\_\_\_

**Student Academic Coordinator** : \_\_\_\_\_

**Mentor's Name** : \_\_\_\_\_

**Phone No.** : \_\_\_\_\_

**Other details if any** : \_\_\_\_\_

**Candidate Signature**

**Parent Signature**



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**Mentor's Name** : \_\_\_\_\_

**Phone No.** : \_\_\_\_\_

**Other details if any** : \_\_\_\_\_

**Candidate Signature**

**Parent Signature**



## PRINCIPAL'S MESSAGE

Dear students,

Welcome to our dental college! We are excited to have you here and look forward to helping you achieve your goals in your dental education.

As you begin your journey in the Bachelor of Dental Surgery (BDS) program, we want to provide you with important information about the policies and procedures of our college. This student handbook serves as a guide to help you navigate through your academic and professional career as a dental student.

The BDS program is rigorous and demanding, but it also provides a wealth of opportunities for you to learn and grow as a dental professional. Our faculty members are highly qualified and experienced, and they are dedicated to helping you succeed in your studies and future career.

In this handbook, you will find information about the curriculum, rules and regulations, academic policies, and other important aspects of the BDS program. We encourage you to read this handbook thoroughly and refer to it frequently throughout your program.

Please note that as a dental student, you are expected to conduct yourself in a professional and ethical manner at all times. This includes respecting your colleagues, faculty members, patients, and the community at large. Any violation of the college's code of conduct may result in disciplinary action.

We hope this handbook will be a valuable resource for you during your time at our college. We wish you all the best as you embark on this exciting journey in the field of dentistry.

Regards

**Dr. Jimson.S**, MDS, FDS RCPS (Glasg),  
Principal  
Sree Balaji Dental College & Hospital, Chennai.

Consultant Oral & Maxillofacial Surgeon  
Rep. for AOMSI to ASIAN AOMS  
Imm. Past Hon. State Secretary  
Association of Oral & Maxillofacial Surgeons of India (AOMSI),  
Tamilnadu & Puducherry Branch

twitter@omfsjimson | LinkedIn@omfsjimson | Instagram@omfsjimson



## ACADEMIC & ADMINISTRATIVE PROFILE

S. No.	Name	Academic Profile	Mobile No.
1	Dr. S. Jimson	Principal & Professor	9940309211
2	Dr. S. Raghavendra Jayesh	Director, PG Studies	9841109759

Dept. No.	Name	Academic Profile	Mobile No.
1	Dr. Nalini Aswath	Professor & HOD Oral Medicine & Radiology	9444161841
2	Dr. Vijay Ebenezer	Professor & HOD Oral & Maxillofacial Surgery	9840136328
3	Dr. A. Subbiya	Professor & HOD Conservative Dentistry & Endodontics	9840197437
4	Dr. A. Anitha Balaji	Professor & HOD Periodontology	9840017004
5	Dr. Ponnudurai Arangannal	Professor & HOD Pediatric Dentistry	9841007148
6	Dr. M.S. Kannan	Professor & HOD Orthodontics & Dentofacial Orthopedics	9840453666
7	Dr. S. Radhavendra Jayesh	Professor & HOD Prosthodontics and Crown & Bridge	9841109759
8	Dr. Anita M	Professor & In-Charge Public Health Dentistry	9841228191
9	Dr. N. Aravindha Babu	Professor & HOD Oral & Maxillofacial Pathology and Oral Microbiology	9841383222
10	Dr. G. Sumathy	Professor & HOD Anatomy	9962013118
11	Dr. A. Julius	Professor & HOD Biochemistry	9840409612
12	Dr. Shoba T	Associate Professor General Pathology	6381927819
13	Dr. K. Mahalakshmi	Professor & HOD Microbiology	9444184403
14	Dr. Sumathi Jones	Professor & HOD Pharmacology	9940106903
15	Dr. Madhuvanathi	Assistant Professor General Surgery	
16	Dr. Radhakrishnan	Professor General Medicine	9884292329
17	Dr. Usha S	Assistant Professor Human Genetics	8248707203

S. No.	Name	Administrative Profile	Mobile No.
1	Mr. J. Devanathan	Administrative Officer	9840111313
2	Mr. Suresh. R	Senior Accountant	9941313262



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## HIPPOCRATIC OATH

I do solemnly swear by that which I value and hold most sacred:

That I will honor the Profession of Medicine, be just and generous to its members, and help them in their service to humanity;

That just as I have learned from those who preceded me, so will I instruct those who follow me in the science and art of medicine;

That I will recognize the limits of my knowledge and pursue lifelong learning to better care for the sick and to prevent illness;

That I will seek the counsel of others when they have more expertise so as to fulfill my obligation to those who are entrusted to my care;

That I will not withdraw from my patients in their time of need;

That I will lead my life and practice my art with integrity and honor, using my power wisely;

That whatsoever I shall see or hear of the lives of my patients that is not befitting to be spoken, I will keep in confidence;

That I will maintain this sacred trust, holding myself far aloof from wrong, from corrupting, from the tempting of others to vice;

That above all else I will serve the highest interests of my patients through my practice;

That I will be an advocate for patients in need and strive for justice in the care of the sick;

I now turn to my calling, promising to preserve its finest traditions, with reward of a long experience in the joy of healing;

I make this vow freely and upon my honor.



## HIPPOCRATIC OATH FOR DENTISTRY

I swear to fulfill, to the best of my ability and judgment, this covenant:

- » I will apply, for the benefit of the sick, all measures which are required, avoiding those twin traps of overtreatment and therapeutic nihilism.
- » I will remember that there is art to dentistry as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug.
- » I will call in my colleagues when the skills of another is needed for a patient's well-being.
- » I will respect the privacy of my patients, for their problems are not disclosed to me that the world may know.
- » I will remember that I do not treat a decayed tooth or a cancerous growth, but a sick human being, whose illness may affect the person's family and economic stability. My responsibility includes handling these with empathy, if I am to care adequately for the sick.
- » I will prevent disease whenever I can, for prevention is preferable to cure.
- » I will remember that I remain a member of society, with special obligations to all my fellow human beings, those sound of mind and body as well as the infirm.
- » May I always act so as to preserve the finest traditions of my calling and may I long experience the joy of healing those who seek my help.



# **SREE BALAJI DENTAL COLLEGE AND HOSPITAL**

## **VISION**

To provide a comprehensive avenue for quality dental education while engaging in basic and applied research simultaneously focussing on outreach and community social responsibility.

To establish a society free of oral health issues by nurturing young minds to recognise the importance of service to society.

## **MISSION**

To function as a vibrant dental institution that blends academic excellence and creativity in a joyous learning environment.

To promote ethical values and integrity thereby developing empathy along with the professional skills required to effectively serve the society.

To develop a generation of future ready professionals competent to excel on national and global stage.

## **GOALS**

- Create a setting where students can develop their clinical and intellectual skills, with a focus on diagnosing, developing treatments and providing comprehensive dental care.
- Give practical training in managing patients with medical complications.
- To train students in hospital procedures, inpatient management and inter disciplinary interaction.
- Create competency in handling and management of serious dental crisis and issues.
- Familiarising operating room protocols through hands on assisting at the operatory.
- Practical training in conscious sedation through clinical experience.
- To provide certification and training in advanced basic life support.



## **BIHER**

### **VISION**

Bharath Institute of Higher Education & Research (BIHER) envisions and constantly strives to provide an excellent academic and research ambience for students and members of the faculties to acquire professional competence along with human dignity, and spearhead the transformation of community through continuous discovery in science and technology.

### **MISSION**

- To develop as a Premier University for Teaching, Learning, Research and Innovation on par with leading global universities.
- To impart education and training to students for creating a better society with ethics and morals.
- To foster an interdisciplinary approach in education, research and innovation by supporting lifelong professional development, enriching knowledge banks through scientific research, promoting best practices and innovation, industry-driven and institute-oriented cooperation, globalization and international initiatives.
- To develop as a multi-dimensional institution contributing immensely to the cause of societal advancement through spread of literacy, an ambience that provides the best of international exposures, provide health care, enrich rural development and most importantly impart value-based education.
- To establish benchmark standards in professional practice in the fields of innovative and emerging areas in medicine, dentistry, nursing, physiotherapy, allied sciences, engineering, and management.
- To launch new programmes with innovative curriculum design by provide multi-faceted exposure in various subjects.
- To provide flexibility to students - options / add-ons to core subjects, develop Device Agnostic Technology to access online content.
- Funding / incubation entrepreneurial ideas, Flipped class room – Integrated Courses & Need based learning.



# RULES & REGULATIONS

## 1. Dress Code:

ID cards issued by the college should be worn at all times. Scrubs must be worn all to must be neat and wrinkle free. Jeans, t shirts, leggings and sleeveless tops are not allowed. Shoes must be closed toed, clean and well-polished. Finger nails must be clean and short. Bracelets and finger rings are not allowed. For boys, hair should be trimmed properly and face should be clean shaved. Girls hair should be braided and pinned properly. Noncompliance to college regulations will entail strict disciplinary action. **Fine will be levied for reissuance of lost ID card.**

## 2. Safety Code:

Head cap and face mask must be worn during clinical sessions. Long hair must be tied back. Inflammable materials such as monomer and surgical spirit must be used in a well-ventilated room, away from open flame. Bunsen burner tap must be closed after working. Students are responsible for the safety of their own instruments and personal belongings.

## 3. Cleanliness Code:

Working tables, trimming units and polishing areas must be left clean after use. Dental plaster, waxes etc. must be discarded in the appropriate colour coded bins. Do not drip hot wax on the floor or into sinks. Mackintosh sheets must be spread on the tables before working.

## 4. Mobile Phones:

Mobile phone use is banned within the college premises. Parents/guardians can use college landline to contact in case of emergency.

## 5. Leave application:

Students applying for leave should fill the leave application form from office and approval of the same should be obtained from:

Hostel student: mentor, warden, respective Head of Department, Head of Institution

Day scholar: mentor, respective Head of Department, Head of Institution

Photo copy of signed leave form should be submitted separately to the relevant department staff in charges at the time of entry to respective theory/ practical classes. If medical leave is being availed, copy of medical report should be submitted and approved.



## **6. Ragging (Banned):**

Indulging in or submitting to ragging is strictly forbidden inside or outside the campus. If found culpable, it is a punishable offence and severe disciplinary action as per government rules will be taken by the concerned committee. Any incidence of ragging should be immediately brought to the notice of the Principal or Anti-ragging committee.

## **7. Attendance and work quota:**

Minimum attendance required for appearing in university examination is as follows:

Theory: 80% in each subject

Practical/clinical: 80% in each subject

In case there is no examination for a subject at the end of that academic year, aggregate percentage of attendance in the subject should satisfy the above condition. Also, work quota of that subject should be completed before entering into the subsequent year.

Irregular candidates and those held for misconduct will not be permitted to undertake the university examination.

## **8. Misuse/ damage to college property**

**Warrants disciplinary action**

## **9. Term Fees:**

Prescribed fee must be paid on/ before stipulated date without fail.

## **10. Suggestion Box:**

Suggestion boxes are present in front of Head of Institutions office, reception, canteen and in front of every department. Suggestion/ complaint/ feedback can be deposited in the form of letter. The box will be accessed only by the Principal and complete confidentiality will be maintained. Alternatively, online feedback in the form of email can be sent to

**[sbdhcprincipaloffice@gmail.com](mailto:sbdhcprincipaloffice@gmail.com)**



# FACILITIES

SBDCH abides by the Dental council guidelines for good infrastructure of dental institutions. Basic science block has a fully equipped anatomy, immunohistochemistry, physiology, hematology, microbiology, histopathology and pharmacology labs.

Pre-clinical training block has separate preclinical prosthodontics lab, dental materials lab and pre-clinical conservative lab for students to enhance their hand skills on phantom heads before treating patients.

The ceramic lab has separate working areas for UG and PG students with trained technicians available to assist at all times

## **LIBRARY:**

The central library has books, national and international journals, e books and e journals. We are registered with National Digital Library. Online Public Access Catalogue (OPAC) and iLib software are available. E- Gate registration with biometric system is available. The premises is divided into reference book section, digital library with internet connection, journal and back volume section and separate sections for UG, PG students and staff. The library is digitized to be disabled friendly.

**Library hours: 9.00am to 8.00pm**

## **Sports & Cultural:**

SBDCH has excellent indoors and sports facilities. Students are encouraged to learn balancing their academics and sports/cultural activities, such that there is wholistic development.

## **Hostel:**

Separate boys and girls hostel are available with common rooms, mess, laundry and gym facilities. Ample number of CCTV camera have been installed at strategic locations.

Female security guards are available 24x7 for girls hostel

**Hostel Timing :** Students should report back to Hostel before 9.00 pm



# EXMINATION SCHEME

University examination are held every academic year in the month of February and August. In accordance with the 7<sup>th</sup> amendment of revised BDS course regulations of DCI, any students who does not clear BDS course in all subjects (including one year of compulsory rotatory internship) within a period of 9 years shall be discharged from the course.

## **Rules of examination:**

Students must have minimum 80% attendance in both theory and practical and should have completed their pre-clinical/ clinical record work/ quota for that year, to be eligible for appearing in university examination.

Students have to mandatorily appear for all class test and internal examination. Internal examination will be conducted minimum 3 per year

Written examination in each subject consists of one paper for 3 hours duration having maximum marks of 70, 20 marks are for viva voce conducted during university practical examinations, and 10 marks for internals.

Students without any prior history of failing an examination is eligible for retotaling on payment of prescribed fee.

Students who have failed in practical examination is not eligible to apply for retotaling.

**PASS CRITERIA:** 50% marks must be scored separately in both theory and practical/ clinical university examination for declaration of pass in a subject.

**BREAK/CARRY STUDENTS:** In II and IV years, failing in even one subject will be considered as break in course of 6 months duration. The student must attend theory, practicals and internal assessment in break subject(s) without fail. Deficiency in attendance will debar the student from attending the subsequent examination.

In I and III years, failing in more than one subject will be considered break in course, while failing in one subject will be considered to be carry over subject and should be cleared before appearing for the next year exam.



## GENERAL RULES OF EXAMINATION

1. Hall tickets for exams will be issued only upon producing the No Objection Certificate [NOC] from both academic & administration section.
2. Candidates will be allowed inside the examination hall fifteen minutes before the commencement of examination only. No candidate will be allowed to enter the hall after ½ hour of commencement of the examination.
3. Candidates should bring the identification card and hall ticket during university examination.
4. Candidates are not allowed to bring along book or other written or printed material or blank papers or information in any form into the examination hall.
5. Mobile phones and electronic devices must be switched off and handed over to the invigilator at the beginning of the examination. If found with any device, action will be taken based on the guidelines of university.
6. No pencil pouches permitted into examination halls for theory.
7. Histopathological/microscopic picture to be drawn using Hematoxylin & Eosin (H & E) pencils only.
8. Multiple choice questions (MCQ) must be answered separately in answer booklet provided. Any correction done in the answer must be counter signed by the invigilator.
9. Candidates found copying or communicating with one another will be reported to the Principal for further action.
10. SBDCH follows a strict student code of conduct for examination, any form of fraud/ copying/infringement of examination rules may lead to severe disciplinary action amounting to cancellation of the candidature in all subjects for university examination and/or disqualification from the degree program.



## ANTI – RAGGING

**Ragging in any form is banned inside and outside the college premises.**

Ragging constitutes one or more of the following acts:

- a. any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student;
- b. indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship, physical or psychological harm or to raise fear or apprehension thereof in any fresher or any other student;
- c. asking any student to do any act which such student will not do in the ordinary course of study which has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student;
- d. any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher;
- e. Exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students;
- f. any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students;
- g. any act of physical abuse including all variants of it: sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health or person;
- h. any act or abuse by spoken words, emails, post, public insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfort of fresher or any other student;
- i. any act that affects the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student;



- j. Any act of physical or mental abuse (including bullying and exclusion) targeted at another student (fresher or otherwise) on the ground of colour, race, religion, caste, ethnicity, gender, sexual orientation, appearance, nationality, regional origins, linguistic identity, place of birth, place of residence or economic background.

A Student indulging in Ragging can be **PUNISHED** by:

- Suspension from attending classes.
- Withholding / withdrawing scholarship / fellowship & other benefits.
- Debarring from appearing in any test / examination or other evaluation process.
- Withholding results.
- Debarring from representing the institution in any regional, national or international meet, tournament or youth festival etc.,
- Collective punishment: when the persons committing or abetting the crime of ragging are not identified the institution shall resort to collective punishment as a deterrent to ensure community pressure on potential ragger.
- Cancellation of admission.

## **MOBILE PHONES**

Mobile phones are banned within the college campus.

**If found using:**

- Phone will be confiscated.
- Student will be suspended.
- Parents will be informed and will be called if necessary.
- Fine may be levied.



# ANTI - RAGGING

Ragging in any form is banned inside and outside the college premises.

Download  
**ANTI RAGGING**  
App

## SAY NO TO RAGGING

## YES TO JOYFUL CAMPUS

### What is Ragging? Any Act Resulting in:

- Mental/physical/sexual Abuse
- Verbal Abuse
- Indecent Behaviour
- Criminal Intimidation/wrongful Restraint
- Undermining Human Dignity
- Financial Exploitation/extortion
- Use Of Force

### A STUDENT INDULGING IN RAGGING CAN BE:

- Cancellation of admission.
- Suspension from attending classes.
- Withholding/withdrawing Scholarship/Fellowship and other benefits.
- Debarring from appearing in any test/ examination or other evaluation process.
- Withholding results.
- Debarring from representing the institution in any regional, national or international meet, tournament or youth festival etc.
- Collective punishment : when the persons committing or abetting the crime of ragging are not identified the institution shall resort to collective punishment as a deterrent to ensure community pressure on potential ragger.



Immediately call  
**UGC Anti-Ragging Helpline**  
1800-180-5522 (24X7 toll free)  
or send an e-mail to [helpline@antiragging.in](mailto:helpline@antiragging.in)



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MINISTRY OF HUMAN RESOURCE DEVELOPMENT  
GOVERNMENT OF INDIA



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quality higher education for all



## ALUMNI ASSOCIATION COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S.Jimson	Principal	9940309211
2	Dr. Gnana Shanmugam	Chairman	9444065217
3	Dr. E. Rajesh	Member	9841006785
4	Dr. Sankar Narayanan	Member Secretary	9884464135
5	Dr. B. Saravanakumar	Member	9444385846
6	Dr. K.R. Sadhana	Member	9543369975
7	Dr. H. Nilofer Farjana	Member	9994022038

## ANTI-RAGGING COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S.Jimson	Principal	9940309211
2	Dr. M.S.Kannan Chairman	Chairman	9840453666
3	Dr. Saravana Kumar	Member Secretary	9444385846
4	Dr. Thailavathy	Member	9940462636
5	Dr. Venkatesh	Member	9444118878
6	Mr. Sakthivel	Non-teaching Member	8903652574
7	Ms. Megha.D	Public Representative Member	9791033613
8	Mr. Manobharathi	Media Representative Member	9840012279
9	Dr. Anitha Mahendiran	NGO Member	9884551736
10	Mr. Leslie Thomas	Day Scholar	8072139789
11	Mr. Sathish	Boys Hostel Student	8925086720
12	Ms. Aishwarya	Girls Hostel Student	6383834967
13	Ms. Akshaya Ramesh	Day Scholar	8248919186
14	Mr. Anirudh.R	Final year	9384821153
15	Mr. Devanathan	Management Representative	9840111313



## ANTI-RAGGING SQUAD

SL. No.	Name of the Member	Designation	Contact Number	SIGNATURE
<b>COLLEGE</b>				
1	<b>Dr. Sree Devi</b>	Member	<b>9840125463</b>	
2	<b>Dr. Thulasi Ram</b>	Member	<b>9884922333</b>	
<b>HOSTEL</b>				
3	<b>Dr. Malathi</b>	Member	<b>9543264959</b>	
4	<b>Dr. Satheesh Memb</b>	Member	<b>9952521987</b>	
<b>PUBLIC PLACE</b>				
5	<b>Dr. Jeeva Rathan</b>	Member	<b>9841330690</b>	
6	<b>Dr. M.Anita</b>	Member	<b>9841228191</b>	

## BIO-SAFETY COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	<b>Dr. S.Jimson</b>	Principal	<b>9940309211</b>
2	<b>Dr. D. Prakash</b>	Chairman	<b>9962771886</b>
3	<b>Dr. K.Padmavathy</b>	Member Secretary	<b>9884164212</b>
4	<b>Dr. Suganya</b>	Member	<b>9787025500</b>
5	<b>Dr. Mythriyee B. G</b>	Member	<b>9566008584</b>
6	<b>Dr. R. Parthasarathy</b>	Member	<b>8925630612</b>
7	<b>Dr. Ramya Chellammal M</b>	Member	<b>9884958611</b>
8	<b>Dr. K. Ramesh</b>	Member	<b>9940275255</b>
9	<b>Dr. S.Saranya</b>	Member	<b>9940069903</b>
10	<b>Mr. Sakthivel</b>	Member	<b>8903652574</b>
11	<b>Mrs. Prasanna</b>	Member	<b>9894351876</b>



## CULTURAL & SPORTS COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S .Jimson	Principal	9940309211
2	Dr. B.Saravana Kumar	Member Secretary – Cultural	9840125463
3	Dr. Sreedevi Kannan	Member Secretary – Sports	9840125463
4	Ms. Shruthi T	Member	9150958625
5	Mr. Shafiq Rohith	Member	8925233782
6	Ms. Mahalakshmi S	Member	9841382214
7	Mr. Sathish	Member	8925086720
8	Mr. Karuppusamy	Member	9361221647
9	Mr. Karthik	Member	6382023057
10	Mr. Anirudh	Member	9384821153
11	Mr. Raja	Member	9790811790

## DENTAL EDUCATION UNIT

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S .Jimson	Principal	9940309211
2	Dr. Nalini Aswath	Chairperson	9444161841
3	Dr. Anita.M	Member Secretary	9841228191
4	Dr. Ramya C	Member	6383390746
5	Dr. K.R. Sadhana	Member	9543369975
6	Dr. J. Abarna	Member	9840593475
7	Dr. R. Shobhana	Member	8610017138
8	Dr. Mythriyee B. G	Member	9566008584
9	Dr. Nikita Caroline John	Member	9884956185
10	Dr. Ramya Chellammal.M	Member	9884958611
11	Dr. H. Nilofer Farjana	Member	9994022038
12	Dr. Suganya P	Member	9787025500
13	Dr. A. Arif Yezdani	Convener CSM	9840090685



## DISCIPLINARY COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S .Jimson	Principal	9940309211
2	Dr. Ponnudurai.A	Chairman	9841007148
3	Dr. Malathy L	Secretary	9543264959
4	Dr. Subbiya. A	Member	9840197437
5	Dr. Sumathi Jones	Member	9940106903
6	Ms. Akshaya V	Student Member	8248919186
7	Mr. Viyash B	Student Member	6381005582
8	Mr. Vigneshwaran	Student member	9500147323
9	Ms. Ananya	Student member	9962561026

## FEEDBACK COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S.Jimson	Principal	9940309211
2	Dr. Nalini Aswath	Chairperson	9444161841
3	Dr. Anitha Balaji	Student Feedback in-charge on Teaching, Course Evaluation	9840017004
4	Dr. Venkatesh	Curriculum Feedback	9444118878
5	Mr. Mageshwaran	Student & Staff Feedback on Non-teaching Staff	9840191727
6	Dr. Geetha priya	Peer Feedback	9841769355
7	Dr. Balavenkata Bharathi Chaturvedula	Alumni Feedback	9941510511
8	Dr. Nikita Caroline John	Safety Feedback	9884956185
9	Mr. Manimaaran	Boys Hostel Feedback	9750445435
10	Dr. L. Malathy	Girls Hostel Feedback	9543264959
11	Dr. V.Ramya	Patient Feedback	9894383459
12	Dr. E. Thulasiram	Transport Feedback	9884922333
13	Dr. S.Leena Sankari	Feedback on infrastructure & learning resources	9840591791
14	Dr. Ganesh Ramesh	Parent Feedback	9866044298



## **PATIENT CO-ORDINATORS & FEEDBACK COMMITTEE**

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr.S.Jimson</b>	Principal	<b>9940309211</b>
2	<b>Dr.Mohan Valiathan</b>	Member Secretary	<b>9543444413</b>
3	<b>Dr. N C Janani Vinodhini</b>	Member	<b>9791004680</b>
4	<b>Dr Ramya V</b>	Member	<b>9894383459</b>
5	<b>Dr Parthasarathy R</b>	Member	<b>8925630612</b>
6	<b>Dr. T. Manigandan</b>	Member	<b>9840726350</b>
7	<b>Dr Ashok. K.R</b>	Member	<b>9840427417</b>
8	<b>Dr. Ganesh Ramesh</b>	Member	<b>9866044298</b>
9	<b>Dr Thulasiram E</b>	Member	<b>9884922333</b>

## **HOSTEL COMMITTEE**

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S.Jimson</b>	Principal	<b>9940309211</b>
2	<b>Mr. Dheenadayalan</b>	Boys Hostel In-charge	<b>8610440976</b>
3	<b>Dr. L.Malathy</b>	Girls Hostel In-charge	<b>9543264959</b>
4	<b>Mr. Kalai Selvan</b>	Member-Boys Hostel Warden	<b>7010927807</b>
5	<b>Mrs. Gayathri</b>	Member-Girls Hostel Warden	<b>8778268214</b>
6	<b>Mr. Saran Raj</b>	Boys Hostel Students	<b>9629614643</b>
7	<b>Ms. Aishwarya V</b>	Girls Hostel Students	<b>6383834967</b>



## INTERNAL COMPLAINTS COMMITTEE

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S.Jimson</b>	Principal	<b>9940309211</b>
2	<b>Dr. Nalini Aswath</b>	Presiding Officer	<b>9444161841</b>
3	<b>Ms. Megha D</b>	External Expert	
4	<b>Dr. Anitha Mahendran</b>	External Expert	
5	<b>Dr. K.Padmavathy</b>	Member	<b>9884164212</b>
6	<b>Dr. Sumathi Jones</b>	Member	<b>9940106903</b>
7	<b>Mrs. Vilasini</b>	Member	<b>9884599309</b>
8	<b>Mr. Devanathan</b>	Member	<b>9840111313</b>
9	<b>Mr. Vigneswaran S</b>	Student Member	<b>9500147323</b>
10	<b>Ms. N.M. Shrinidhi</b>	Student Member	<b>8778127006</b>
11	<b>Ms. Velvizhi Tha Poo</b>	Student Member	<b>8838252294</b>
12	<b>Mr. Leslie Thomas T</b>	Student Member	<b>8072139789</b>
13	<b>Mr. Viyash B</b>	Student Member	<b>6381005582</b>
14	<b>Ms. Sruthi T</b>	Student Member	<b>9150958625</b>



## INTERNAL QUALITY ASSURANCE COMMITTEE

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S. Jimson</b>	Chairman of IQAC	<b>9940309211</b>
2	<b>Dr. J. Bhuvaneswari</b>	IQAC Coordinator	<b>9994044047</b>
3	<b>Dr.M. Anita</b>	Member Secretary	<b>9003147424</b>
4	<b>Dr. V. Ramya Dr. Geetha priya Dr. K.R. Sadhana Dr. Suganya</b>	IQAC Core committee Members	<b>9894383459 9841769355 9543369975 9787025500</b>
5	<b>Dr. Aswath Narayanan</b>	External expert	
6	<b>Mr. Devanathan</b>	Management Representative	<b>9840111313</b>
7	<b>Dr. Gnana Shanmugham Dr. Thulasi Ram</b>	Members from alumni	<b>9444065217 9884922333</b>
8	<b>R. Akshaya Vaikundam Srikanth. A</b>	Student Members	<b>8248919186 9488073873</b>
9	<b>Mrs. Vijayanthi Mala Mr. Asaithambi Adhi</b>	Parent Representative	
10	<b>Mrs. Kayalvizhi</b> , Headmistress Govt. Panchayat Middle School.	Member of Local Society	
11	<b>Dr. Johnson Moses Dr. Prabhakaran Dr. Karthikeyan</b>	Stake-holders	



## LIBRARY COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S.Jimson	Principal	9940309211
2	Dr. Kannan.M.S	Chairman	9840453666
3	Dr. Senthilnathan	Member	9840155996
4	Dr. K.R. Sadhana	Member	9543369975
5	Dr. Poornalingalakshmi	Member	9566754150
6	Dr. E.Rajesh	Member	9841006785
7	Dr. Gowri	Member	9962637006
8	Dr. Madhumitha	Member	9655302010
9	Dr. Sankar Narayanan	Member	9884464135
10	Dr. Leena Sankari	Member	9840591791
11	Dr. Mytriyee	Member Coordinator	9566008584

## MENTORSHIP COMMITTEE

SL. No.	Year	Member Head	Contact Number
1	Chairman	Dr. S.Jimson	9940309211
2	1 <sup>st</sup> year	Dr. A.Venkatesh	9444118878
3	2 <sup>nd</sup> year	Dr. Ganesh Ramesh	9866044298
4	3 <sup>rd</sup> year	Dr. Leena Sankari	9840591791
5	4 <sup>th</sup> year	Dr. T.Manigandan	9840726350
6	CRRI	Dr. Mohan Valiathan	9543444413



## NSS COORDINATORS & OUTREACH COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr.S.Jimson	President	9940309211
2	Dr.M.Anita	Chairperson	9841228191
3	Dr. Suganya P	Member Secretary	9787025500
4	Dr. Jayashri Krupaa	Member	9840286523
5	Dr. Seetha Lakshmi C	Member	9444926367
6	Dr. Hemasri V	Member	8608877458
7	Dr. Vivek Rajasimhan N	Member	8056113525
8	Dr. Nilofer Fariana H	Member	9994022038
9	Dr. Pugazhendhi P	Member	9841063742
10	Dr. Ramesh K	Member: Camp-in-charge	9940275255
11	Mr. Sakthivel (PRO)	Member	8903652574

## PURCHASE & STORES COMMITTEE

SL. No.	Name of the Member	Designation	Contact Number
1	Dr. S.Jimson	Principal	9940309211
2	Dr.Bala Krishnan	Chairman	9840090685
3	Dr Jeevarathan J	Member	9841330690
4	Dr Manigandan T	Member	9840726350
5	Dr. Prakash.D	Member	9962771886
6	Dr N.Anitha	Member Secretary	9940089521
7	Dr. Karthick. A	Member	9884718819
8	Dr. Dhivya Darshani D	Member	9940635853
9	Dr. Ganesh Ramesh	Member	9866044298
10	Mr. Suresh	Accountant	9941313262
11	Mr. Duraisamy	Stores Assistant	7904781615



## INSTITUTIONAL REVIEW BOARD (UG)

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S.Jimson</b>	Principal	<b>9940309211</b>
2	<b>Dr. Badri T</b>	Chairman	<b>7358483837</b>
3	<b>Dr. K. Padmavathy</b>	Member Secretary	<b>9884164212</b>
4	<b>Dr. Radhakrishnan</b>	Member	<b>9884292329</b>
5	<b>Dr. C.Sumathi Jones</b>	Member	<b>9940106903</b>
6	<b>Dr. R.Balakrishnan</b>	Member	<b>9884630045</b>
7	<b>Dr. Anitha Balaji</b>	Member	<b>9840017004</b>
8	<b>Dr. T.Manigandan</b>	Member	<b>9840726350</b>
9	<b>Dr. V.Sreedevi</b>	Member	<b>9840125463</b>
10	<b>Dr. J.Jeeva Rathan</b>	Member	<b>9841330690</b>
11	<b>Dr. M.Anita</b>	Member	<b>9841228191</b>
12	<b>Dr. K.R.Don</b>	Member	<b>9443215893</b>
13	<b>Dr. N.Geethapriya</b>	Member	<b>9841769355</b>
14	<b>Dr. V.Thailavathy</b>	Member	<b>9940462636</b>



## INSTITUTIONAL REVIEW BOARD (PG)

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S.Jimson</b>	Principal	<b>9940309211</b>
2	<b>Dr. Badri T</b>	Chairman	<b>7358483837</b>
3	<b>Dr. K. Padmavathy</b>	Member Secretary	<b>9884164212</b>
4	<b>Dr. S. Raghavendra Jayesh</b>	Member	<b>9841109759</b>
5	<b>Dr. A. Ponnudurai</b>	Member	<b>9841007148</b>
6	<b>Dr. A. Radhakrishnan</b>	Member	<b>9884292329</b>
7	<b>Dr. Sumathi Jones</b>	Member	<b>9940106903</b>
8	<b>Dr. Vijay Ebenezer</b>	Member	<b>9840136328</b>
9	<b>Dr. M.S. Kannan</b>	Member	<b>9840453666</b>
10	<b>Dr. N. Aravindha Babu</b>	Member	<b>9841383222</b>
11	<b>Dr. V. Prakash</b>	Member	<b>9841126331</b>
12	<b>Dr. Nalini Aswath</b>	Member	<b>9444161841</b>
13	<b>Dr. Anitha Balaji</b>	Member	<b>9840017004</b>
14	<b>Dr. M. Anita</b>	Member	<b>9841228191</b>



## ROTARACT COMMITTEE

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S. Jimson</b>	Chairman	<b>9940309211</b>
2	<b>Dr. Ganesh. R</b>	Convener	<b>9866044298</b>
3	<b>Dr. Sumathi. J</b>	Advisor	<b>9940106903</b>
4	<b>Dr. Ashok. KR</b>	Advisor International Service	<b>9840427411</b>
5	<b>Dr. Anita. M</b>	College Coordinator	<b>9841228191</b>
6	<b>Ms. Pavishwariya. P</b>	Student President	<b>9445966849</b>
7	<b>Ms. Ananya. L</b>	Student Secretary	<b>9962561026</b>
8	<b>Mr. Arnold. C</b>	Student joint Secretary	<b>6382542905</b>
9	<b>Ms. Ilakiya. R</b>	Treasurer	<b>9384870704</b>
10	<b>Mr. Pearlson. P</b>	Vice President	<b>9150495750</b>
11	<b>Ms. Aishwarya. B</b>	Student Member	<b>6382542905</b>
12	<b>Mr. Vishwa. R</b>	Student Member	<b>8056540532</b>
13	<b>Mr. Selvanand. M</b>	Student Member	<b>9629199008</b>
14	<b>Ms. Mahalakshmi. G</b>	Student Member	<b>9629614643</b>
15	<b>Ms. Jyotsnagayathri. M</b>	Student Member	<b>8190007282</b>
16	<b>Ms. Sri Harini. M</b>	Student Member	<b>8075491924</b>
17	<b>Ms. Benher Don. X</b>	Student Member	<b>9995159240</b>
18	<b>Mr. Akil Thiagaraj</b>	Student Member	<b>8457848100</b>
19	<b>Mr Lesli. T</b>	Student Member	<b>8072139789</b>
20	<b>Ms. Aishwarya. V</b>	Student Member	<b>6383834967</b>
21	<b>Mr. Karthick. RM</b>	Student Member	<b>7200859844</b>
22	<b>Ms. Priyadarshini. G</b>	Student Member	<b>7538882442</b>
23	<b>Ms. Mahalakshmi. S</b>	Student Member	<b>9841382214</b>
24	<b>Ms. Dhivya Shree. M</b>	Student Member	<b>9150143332</b>
25	<b>Ms. Simrita. K</b>	Student Member	<b>9176055822</b>
26	<b>Mr. Viyash. B</b>	Student Member	<b>6381005582</b>
27	<b>Ms. Yuvapriya. MG</b>	Student Member	<b>8610047622</b>
28	<b>Ms. Nandini. J</b>	Student Member	<b>7339299909</b>
29	<b>Ms. Sudha Lalitha. S</b>	Student Member	<b>9345779820</b>
30	<b>Ms. Madhushree. J</b>	Student Member	<b>7550243451</b>



## STUDENTS GRIEVANCES CELL

SL. No.	Name of the Member	Designation	Contact Number
1	<b>Dr. S.Jimson</b>	Chairman	<b>9940309211</b>
2	<b>Dr. A. Venkatesh</b>	Member Secretary	<b>9444118878</b>
3	<b>Dr. Kishore Kumar</b>	Member	<b>9884428808</b>
4	<b>Dr. Ganesh Ramesh</b>	Member	<b>9866044298</b>
5	<b>Dr. Saravana Kumar. B</b>	Member	<b>9444385846</b>
6	<b>Dr. Anitha. N</b>	Member	<b>9884472470</b>
7	<b>Dr. N. Geetha Priya</b>	Member	<b>9841769355</b>
8	<b>Dr. Malathi. L</b>	Member	<b>9543264959</b>
9	<b>Mr. Kalai Selvan</b>	Member - Boys Hostel Warden	<b>7010927807</b>
10	<b>Mrs. Gayathri</b>	Member - Girls Hostel Warden	<b>8778268214</b>
11	<b>Mr. Sakthivel (PRO)</b>	Non- Teaching Member	<b>8903652574</b>
<b>STUDENTS MEMBER</b>			
12	<b>Mr. Leslie Thomas</b>	Student Member	<b>8072139789</b>
13	<b>Ms. Dhivya Shree</b>	Student Member	<b>9150143332</b>
14	<b>Mr. Nikhil</b>	Student Member	<b>7871243462</b>
15	<b>Ms. Ilakiya</b>	Student Member	<b>9384870704</b>
16	<b>Mr. Vigneshwaran</b>	Student Member	<b>9500147323</b>
17	<b>Ms. Akshaya. V</b>	Student Member	<b>8248919186</b>
18	<b>Dr. Jembulingam. S</b>	Student Member	<b>9677027214</b>



## **STUDENTS WELFARE / STUDENTS COUNCIL COMMITTEE**

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S. Jimson</b>	Chairman	<b>9940309211</b>
2	<b>Dr. A. Venkatesh</b>	Member Secretary	<b>9444118878</b>
3	<b>Dr. Anita. N</b>	Member	<b>9884472470</b>
4	<b>Dr. Sathya Priya</b>	Member	<b>9600033301</b>
5	<b>Ms. Pavishwariya</b>	Student Member	<b>9445966849</b>
6	<b>Mr. Saran Raj</b>	Student Member	<b>9629614643</b>
7	<b>Ms. Parijat</b>	Student Member	<b>7970893174</b>
8	<b>Mr. Leslie Thomas</b>	Student Member	<b>8072139789</b>
9	<b>Ms. Ilakiya</b>	Student Member	<b>9384870704</b>
10	<b>Mr. Viyash B</b>	Student Member	<b>6381005582</b>

## **YOUTH RED CROSS COMMITTEE**

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. S. Jimson</b>	Chairman	<b>9940309211</b>
2	<b>Dr. M. Anita</b>	Member Secretary	<b>9841228191</b>
3	<b>Dr. P. Suganya</b>	Member	<b>9787025500</b>
4	<b>Dr. R. Sathish</b>	Member	<b>9952521987</b>
5	<b>Ms. Pavishwariya</b>	Student Member	<b>9445966849</b>



## PUBLICATION COMMITTEE

<b>SL. No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact Number</b>
1	<b>Dr. Jimson.S</b>	Principal	<b>9940309211</b>
2	<b>Dr. Sumathi Jones</b>	Chairperson	<b>9940106903</b>
3	<b>Dr. Don</b>	Member Secretary	<b>9443215893</b>
4	<b>Dr. Ashok K.R</b>	Member	<b>9840427417</b>
5	<b>Dr. Jeevarathan</b>	Member	<b>9841330690</b>
6	<b>Dr. M. Anita</b>	Member	<b>9841228191</b>
7	<b>Dr. B.Sathya Priya</b>	Member	<b>9600033301</b>
8	<b>Dr. E. Rajesh</b>	Member	<b>9841006785</b>
9	<b>Dr. R. Sankar Narayanan</b>	Member	<b>9884464135</b>
10	<b>Dr. Ramya Chellammal M</b>	Member	<b>9884958611</b>
11	<b>Dr. J. Abarna</b>	Member	<b>9840593475</b>
12	<b>Dr. Ramya.C</b>	Member	<b>6383390746</b>



# **BDS CURRICULUM**

BDS Curriculum is available in SBDCH website and is subject to change from time to time based on council norms.

## **SUBJECTS OF STUDY**

### **FIRST YEAR BDS EXAMINATION**

1. General Human Anatomy including Embryology and Histology.
2. General Human Physiology and Biochemistry.
3. Dental Anatomy, Embryology and Oral Histology.

### **SECOND YEAR BDS EXAMINATION**

1. General Pathology and Microbiology
2. General and Dental Pharmacology and Therapeutics
3. Dental Materials.
4. Preclinical Conservative Dentistry
5. Preclinical Prosthodontics and Crown & Bridge.

### **THIRD YEAR BDS EXAMINATION**

1. General Medicine
2. General Surgery
3. Oral Pathology and Oral Microbiology

### **FOURTH YEAR BDS EXAMINATION (FINAL)**

1. Public Health Dentistry
2. Periodontology
3. Orthodontics and Dentofacial Orthopaedics
4. Oral Medicine and Radiology
5. Oral & Maxillofacial Surgery
6. Conservative Dentistry and Endodontics
7. Prosthodontics and Crown and Bridge
8. Paediatric and Preventive Dentistry

### **COMPULSORY ROTATING INTERNSHIP (CRI)**

Students should have cleared all prior university examination to be eligible to undergo internship. Internship is compulsory and rotating as per DCI norms. 12 days casual leave can be availed with prior intimation, subject to approval of warden (if applicable), mentor, relevant Head of the Department, Head of Institution.



## I YEAR SUBJECTS

SL. No.	SUBJECT	MARKS	
		THEORY	PRACTICAL
1	GENERAL ANATOMY INCLUDING EMBRYOLOGY AND HISTOLOGY	100	100
2	GENERAL HUMAN PHYSIOLOGY & BIOCHEMISTRY	100	100
3	DENTAL ANATOMY, EMBRYOLOGY AND ORAL HISTOLOGY	100	100
4	DENTAL MATERIALS*		
5	PRE CLINICAL PROSTHODONTICS AND CROWN AND BRIDGE*		

\* University Exam will be conducted at the end of II BDS

Theory & Practical Mark Distribution for all Subjects \* :

Theory - 100 Mark		Practicals / Clinicals - 100 Mark	
University written exam	70	University exam	90
Viva voce	20	Internal assessment	10
Internal assessment	10		
<b>Total -</b>	<b>100</b>	<b>Total -</b>	<b>100</b>



# SYLLABUS OF STUDY

## I B.D.S.

### 1. HUMAN ANATOMY, EMBRYOLOGY, HISTOLOGY & MEDICAL GENETICS

#### A) GOAL

The students should gain the knowledge and insight into the functional anatomy of the normal human head and neck, functional histology and an appreciation of the genetic basis of inheritance and disease, and the embryological development of clinically important structures, so that relevant anatomical & scientific foundations are laid down for the clinical years of the BDS course.

#### B) OBJECTIVES:

##### A) KNOWLEDGE & UNDERSTANDING:

At the end of the 1st year BDS course in Anatomical Sciences the undergraduate student is expected to:

1. Know the normal disposition of the structures in the body while clinically examining a patient and while conducting clinical procedures.
2. Know the anatomical basis of disease and injury.
3. Know the microscopic structure of the various tissues, a pre-requisite for understanding of the disease processes.
4. Know the nervous system to locate the site of lesions according to the sensory and or motor deficits encountered.
5. Have an idea about the basis of abnormal development, critical stages of development, effects of teratogens, genetic mutations and environmental hazards.
6. Know the sectional anatomy of head neck and brain to read the features in radiographs and pictures taken by modern imaging techniques.
7. Know the anatomy of cardio-pulmonary resuscitation.

##### B) SKILLS

1. To locate various structures of the body and to mark the topography of the living anatomy.
2. To identify various tissues under microscope.
3. To identify the features in radiographs and modern imaging techniques.
4. To detect various congenital abnormalities.



## **C) INTEGRATION**

By emphasizing on the relevant information and avoiding unwanted details, the anatomy taught integrally with other basic sciences & clinical subjects not only keeps alive in the learner curious but also lays down the scientific foundation for making a better doctor, a benefit to the society.

### **This insight is gained in a variety of ways:**

- 1) Lectures & small group teaching
- 2) Demonstrations
- 3) Dissection of the human cadaver
- 4) Study of dissected specimens
- 5) Osteology
- 6) Surface anatomy on living individual
- 7) Study of radiographs & other modern imaging techniques.
- 8) Study of Histology slides.
- 9) Study of embryology models
- 10) Audio-visual aids

Throughout the course, particular emphasis is placed on the functional correlation, clinical application & on integration with teaching in other bio dental disciplines.

## **D) AN OUTLINE OF THE COURSE CONTENT:**

1. General anatomy: Introduction of anatomical terms and brief outline of various systems of the body.
2. Regional anatomy of head & neck with osteology of bones of head & neck, with emphasis on topics of dental importance.
3. General disposition of thoracic, abdominal & pelvic organs.
4. The regional anatomy of the sites of intramuscular & intra vascular injections, & lumbar puncture.
5. General embryology & systemic embryology with respect to development of head & neck.
6. Histology of basic tissues and of the organs of gastrointestinal, respiratory Endocrine, excretory systems & gonads.
7. Medical genetics.

## **E) SYLLABUS**

### **I. INTRODUCTION TO:**

1. Anatomical terms.
2. Skin, superficial fascia & deep fascia
3. Cardiovascular system, portal system collateral circulation and arteries.



4. Lymphatic system, regional lymph nodes
5. Osteology – Including ossification & growth of bones
6. Myology – Including types of muscle tissue & innervation.
7. Syndesmology – Including classification of Joints.
8. Nervous system

## **II. HEAD & NECK:**

1. Scalp, face & temple, lacrimal apparatus
2. Neck – Deep fascia of neck, posterior triangle, suboccipital triangle, anterior triangle, anterior median region of the neck, deep structures in the neck.
3. Cranial cavity – Meninges, parts of brain, ventricles of brain, dural venous sinuses, cranial nerves attached to the brain, pituitary gland.
4. Cranial nerves – III, IV, V, VI, VII, IX, XII in detail.
5. Orbital cavity – Muscles of the eye ball, supports of the eye ball, nerves and vessels in the orbit.
6. Parotid gland.
7. Temporomandibular joint, muscles of mastication, infratemporal fossa, pterygo – palatine fossa.
8. Submandibular region
9. Walls of the nasal cavity, paranasal air sinuses
10. Palate
11. Oral cavity, Tongue
12. Pharynx (palatine tonsil and the auditory tube) Larynx. **OSTEOLOGY** – Foetal skull, adult skull, individual bones of the skull, hyoid bone and cervical vertebrae

## **III. THORAX:**

Demonstration on a dissected specimen of

1. Thoracic wall
2. Heart chambers
3. Coronary arteries
4. Pericardium
5. Lungs – surface; pleural cavity
6. Diaphragm

## **IV. ABDOMEN:**

Demonstration on a dissected specimen of

1. Peritoneal cavity
2. Organs in the abdominal & pelvic cavity.



## **V. CLINICAL PROCEDURES:**

a) Intramuscular injections: Demonstration on a dissected specimen and on a living person of the following sites of injection.

1. Deltoid muscle and its relation to the auxiliary nerve and radial nerve.
2. Gluteal region and the relation of the sciatic nerve.
3. Vastus lateralis muscle.

b) Intravenous injections & venesection: Demonstration of veins in the dissected specimen and on a living person.

1. Median cubital vein
2. Cephalic vein
3. Basilic vein
4. Long saphenous vein

c) Arterial pulsations: Demonstration of arteries on a dissected specimen and feeling of pulsation of the following arteries on a living person.

1. Superficial temporal
2. Facial
3. Carotid
4. Axillary
5. Brachial
6. Radial
7. Ulnar
8. Femoral
9. Popliteal
10. Dorsalis pedis

d) Lumbar puncture: Demonstration on a dissected specimen of the spinal cord, cauda equine & epidural space and the inter vertebral space between L4 & L5.

## **VI. EMBRYOLOGY:**

Oogenesis, Spermatogenesis, Fertilisation, Placenta, Primitive streak, Neural crest, Bilaminar and trilaminar embryonic disc, intra embryonic mesoderm – formation and fate, notochord formation & fate, Pharyngeal arches, pouches & clefts, Development of face, tongue, palate, thyroid gland, pituitary gland, salivary glands, and anomalies in their development, tooth development in brief.

## **VII. HISTOLOGY:**

The Cell:

Basic tissues – Epithelium, Connective tissue including cartilage and bone, Muscle Tissue, Nervous tissue: Peripheral nerve, optic nerve, sensory ganglion, motor ganglion, Skin

Classification of Glands

Salivary glands (serous, mucous and mixed gland), Blood vessels, Lymphoid tissue Tooth, lip, tongue, hard palate, esophagus, stomach, duodenum, ileum, colon, vermiform appendix Liver, Pancreas, Lung, Trachea, Epiglottis, Thyroid gland, parathyroid gland, supra renal gland and pituitary gland, Kidney, Ureter, Urinary bladder, Ovary and testis.

## **VIII. MEDICAL GENETICS:**

Mitosis, meiosis, Chromosomes, gene structure, Mendelism, modes of inheritance.



# UNIVERSITY PRACTICALS EXAM – I BDS HUMAN ANATOMY, EMBRYOLOGY, HISTOLOGY & MEDICAL GENETICS

**MARKS MAX.–100**

<b>SL. No.</b>	<b>PROCEDURES</b>	<b>MARKS</b>	<b>TOTAL</b>
1.	Histology Slides 15	15x2	30
2.	Specimens	15x2	30
3.	Osteology	10x2	20
4.	Radiology/Embryology	5x2	10
	Internal Assessment		10
<b>Total</b>			<b>100</b>

## **RECOMMENDED BOOKS:**

1. SNELL (Richard S.) Clinical Anatomy for Medical Students, Ed. 5, Little Brown & company, Boston.
2. RJ LASTS Anatomy – McMinn, 9th edition.
3. ROMANES(G.J.) Cunningham Manual of Practical Anatomy: Head & Neck & Brain Ed. 15. Vol. III, Oxford Medical publication.
4. WHEATER, BURKITT & DANIELS, Functional Histology, Ed. 2, Churchill Livingstone.
5. SADLER, LANGMAN'S, Medical Embryology, Ed. 6.
6. JAMES E ANDERSON, Grant's Atlas of Anatomy. Williams & Wilkins.
7. WILLIAMS, Gray's Anatomy, Ed. 38., Churchill Livingstone.
8. EMERY, Medical Genetics.



## **2. HUMAN PHYSIOLOGY**

### **A) GOAL**

The broad goal of teaching undergraduates students Human Physiology is to provide the student Comprehensive knowledge of the normal functions of the organ systems of the body to facilitate an understanding of the physiological basis of health and disease.

### **OBJECTIVES**

#### **a) KNOWLEDGE**

At the end of the course, the student will be able to:

1. Explain the normal functioning of all organ systems and their interactions for well co-ordinated total body function.
2. Assess the relative contribution of each organ system towards the maintenance of the milieu interior.
3. List the physiological principles underlying the pathogenesis and treatment of disease.

#### **b) SKILLS**

At the end of the course, the student shall be able to:

1. Conduct experiments designed for the study of physiological phenomena.
2. Interpret experimental and investigative data
3. Distinguish between normal and abnormal data derived as a result of tests which he/she has performed and observed in the laboratory.

#### **c) INTEGRATION**

At the end of the integrated teaching the student shall acquire an integrated knowledge of organ structure and function and its regulatory mechanisms.

#### **d) SYLLABUS**

##### **1. GENERAL PHYSIOLOGY**

1. Homeostasis: Basic concept, feedback mechanisms
2. Cell, its organelles with functions
3. Structure of cell membrane, transport across cell membrane
4. Membrane potentials

##### **2. BLOOD**

Composition & functions of blood.

Specific gravity, Packed cell volume, factors affecting & methods of determination.

Plasma proteins – Types, concentration, functions & variations.

Erythrocyte – Morphology, functions & variations. Erythropoiesis & factors



affecting erythropoiesis.

ESR – Methods of estimation, factors affecting, variations & significance.

Hemoglobin – Normal concentration, method of determination & variation in concentration.

Blood indices – MCV, MCH, MCHC – definition, normal values, variation.

Anemia – Definition, classification, life span of RBC's destruction of RBC's, formation & fate of bile pigments, Jaundice – types.

Leucocytes: Classification, number, percentage, distribution morphology, properties, functions & variation. Role of lymphocytes in immunity, leucopoiesis life span & fate of leucocytes.

Thrombocytes – Morphology, number, variations, function & thrombopoiesis.

Haemostasis – Role of vasoconstriction, platelet plug formation in hemostasis, coagulation factors, intrinsic & extrinsic pathways of coagulation, clot retraction.

Tests of hemostatic function, platelet count, clotting time, bleeding time, prothrombin time – normal values, method & variations. Anticoagulants – mechanism of action. Bleeding disorders.

Blood groups: ABO & Rh system, method of determination, importance, indications & dangers of blood transfusion, blood substitutes.

Blood volume: Normal values, variations.

Body fluids: distribution of total body water, intracellular & extracellular compartments, major anions & cations in intra and extra cellular fluid.

Tissue fluids & lymph: Formation of tissue fluid, composition, circulation & functions of lymph. Oedema – causes.

Functions of reticulo endothelial system.

### **3. MUSCLE AND NERVE**

Classification of nerves, structure of skeletal muscle – Molecular mechanism of muscle contraction, neuromuscular transmission. Properties of skeletal muscle. Structure and properties of cardiac muscle & smooth muscle.

### **4. DIGESTIVE SYSTEM**

Introduction to digestion: General structure of G.I. tract, Innervation.

Salivary glands: Structure of salivary glands, composition, regulation of secretion & functions of saliva

Stomach: Composition and functions of gastric juice, mechanism and regulation of gastric secretion.

Exocrine Pancreas – Structure, Composition of pancreatic juice, functions of each component, regulation of pancreatic secretion.

Liver: structure, composition of bile, functions of bile, regulation of secretion – Gall bladder: structure, functions.

Small intestine – Composition, functions & regulation of secretion of



intestinal juice.

Large intestine – Functions.

Motor functions of GIT: Mastication, deglutition, gastric filling & emptying, movement of small and large intestine, defecation.

## **5. EXCRETORY SYSTEM:**

Structure & functions of kidney, functional unit of kidney & functions of different parts.

Juxta glomerular apparatus, renal blood flow.

Formation of Urine: Glomerular filtration rate – definition, determination, normal values, factors influencing G.F.R. Tubular reabsorption – Reabsorption of sodium, glucose, water & other substances. Tubular secretion – secretion of urea, hydrogen and other substances.

Mechanism of concentration & dilution of urine.

Role of kidney in the regulation of pH of the blood.

Micturition: anatomy & innervations of Urinary bladder, mechanism of micturition & abnormalities.

## **6. BODY TEMPERATURE & FUNCTIONS OF SKIN**

### **7. ENDOCRINOLOGY**

General endocrinology – Enumeration of endocrine glands & hormones – General functions of endocrine system, chemistry, mechanism of secretion, transport, metabolism, regulation of secretion of hormones.

Hormones of anterior pituitary & their actions, hypothalamic regulation of anterior pituitary function. Disorders of secretion of anterior pituitary hormones.

Posterior pituitary: Functions, regulation & disorders of secretion.

Thyroid: Histology, synthesis, secretion & transport of hormones, actions, of hormones, regulation of secretion & disorders, Thyroid function tests.

Parathyroid and calcium homeostasis

Adrenal cortex & Medulla – synthesis, secretion, action, metabolism, regulation of secretion of hormones & disorders.

Other hormones – Angiotensin, A.N.P.

### **8. REPRODUCTION**

Sex differentiation, Physiological anatomy of male and female sex organs, Female reproductive system: Menstrual cycle, functions of ovary, actions of oestrogen & Progesterone, control of secretion of ovarian hormones, tests for ovulation, fertilization, implantation, maternal changes during pregnancy, pregnancy tests & parturition.

Lactation, composition of milk, factors controlling lactation, milk ejection, reflex, Male reproductive system: spermatogenesis, semen and contraception.



## **9. CARDIO VASCULAR SYSTEM**

Functional anatomy and innervations of heart Properties of cardiac muscle

Origin & propagation of cardiac impulse and heart block.

Electrocardiogram – Normal electrocardiogram. Two changes in ECG in myocardial infarction.

Cardiac cycle – Phases, Pressure changes in atria, ventricles & aorta.

Volume changes in ventricles. Jugular venous pulse, arterial pulse

Heart sounds: Mention of murmurs.

Heart rate: Normal value, variation & regulation.

Cardiac output: Definition, normal values, one method of determination, variation, factors affecting heart rate and stroke volume.

Arterial blood pressure: Definition, normal values & variations, determinants, regulation & measurement of blood pressure.

Coronary circulation.

Cardio vascular homeostasis – Exercise & posture.

## **10. RESPIRATORY SYSTEM**

Physiology of Respiration: External & internal respiration.

Functional anatomy of respiratory passage & lungs.

Respiratory movements: Muscles of respiration, Mechanism of inflation & deflation of lungs.

Intra pleural & intra pulmonary pressures & their changes during the phases of respiration.

Mechanics of breathing – surfactant, compliance & work of breathing.

Spirometry: Lung volumes & capacities definition, normal values, significance, factors affecting vital capacity, variations in vital capacity, FEV & its variations.

Pulmonary ventilation – alveolar ventilation & dead space – ventilation.

Composition of inspired air, alveolar air and expired air.

Exchange of gases: Diffusing capacity, factors affecting it.

Transport of Oxygen & carbon dioxide in the blood.

Regulation of respiration – neural & chemical.

Hypoxia, cyanosis, dyspnea, periodic breathing.

Artificial respiration, pulmonary function tests.

## **11. CENTRAL NERVOUS SYSTEM**

1. Organisation of central nervous system

2. Neuronal organization at spinal cord level

3. Synapse, receptors, reflexes, sensations and tracts

4. Physiology of pain and pathway



5. Functions of cerebellum, thalamus, hypothalamus and cerebral cortex, Basal ganglia
6. Formation and functions of CSF
7. Autonomic nervous system

## **12. SPECIAL SENSES**

Fundamental knowledge of vision, hearing, taste and smell

### **PRACTICALS**

The following list of practical is minimum and essential. All the practical have been categorized as procedures and demonstrations. The procedures are to be performed by the students during practical classes to acquire skills. All the procedures are to be included in the University practical examination. Those categorised as demonstrations are to be shown to the students during practical classes. However these demonstrations would not be included in the University examinations but question based on this would be given in the form of charts, graphs and calculations for interpretation by the students.

### **PROCEDURES**

1. Enumeration of Red Blood Cells
2. Enumeration of White Blood Cells
3. Differential leucocyte counts
4. Determination of Hemoglobin
5. Determination of blood group
6. Determination of bleeding time and clotting time
7. Examination of pulse
8. Recording of blood pressure.

### **DEMONSTRATION:**

1. Determination of packed cell volume and erythrocyte sedimentation rate
2. Determination of specific gravity of blood
3. Determination of erythrocyte fragility
4. Determination of vital capacity and timed vital capacity
5. Skeletal muscle experiments.

Study of laboratory appliances in experimental physiology. Frog's gastrocnemius sciatic preparation. Simple muscle curve, effects of two successive stimuli, effects of increasing strength of stimuli, effects of temperature, genesis of fatigue and tetanus. Effect of after load and free load on muscle contraction, calculation of work done.

6. Electrocardiography: Demonstration of recording of normal Electro cardiogram
7. Clinical examination of cardiovascular and respiratory system.



# UNIVERSITY PRACTICALS EXAM – I BDS HUMAN PHYSIOLOGY

**MARKS MAX.-50**

SL. No.	PROCEDURES	MARKS	TOTAL
1.	Major Practicals WBC Counting, Recording of BP	1x25	25
2.	Minor Practicals Blood Grouping BT, CT, Estimation of Hb	1x15	15
3.	Practical Viva		5
	Internal Assessment		5
<b>Total</b>			<b>50</b>

## RECOMMENDED BOOKS

Guyton; Text book of Physiology, 9<sup>th</sup> edition.

Ganong; Review of Medical Physiology, 19<sup>th</sup> edition

Vander; Human physiology, 5<sup>th</sup> edition

Choudhari; Concise Medical Physiology, 2<sup>nd</sup> edition

Chatterjee; Human Physiology, 10<sup>th</sup> edition

A.K. Jain; Human Physiology for BDS students, 1<sup>st</sup> edition

## REFERENCE BOOKS:

i) Berne & Levey; Physiology, 2<sup>nd</sup> edition

ii) West-Best & Taylor's, Physiological basis of Medical Practise, 11<sup>th</sup> edition

## EXPERIMENTAL PHYSIOLOGY:

i) Rannade; Practical Physiology, 4<sup>th</sup> edition

ii) Ghai; a text book of practical physiology

iii) Hutchison's; Clinical Methods, 20<sup>th</sup> edition



# BIOCHEMISTRY

## A) AIMS AND SCOPE OF THE COURSE IN BIOCHEMISTRY

The major aim is to provide a sound but crisp knowledge on the biochemical basis of the life processes relevant to the human system and to dental/medical practice. The contents should be organised to build on the already existing information available to the students in the pre-university stage and reorienting. A mere rehash should be avoided.

The chemistry portion should strive towards providing information on the functional groups, hydrophobic and hydrophilic moieties and weak valence forces that organise macromolecules. Details on structure need not be emphasised.

Discussion on metabolic processes should put emphasis on the overall change, interdependence and molecular turnover. While details of the steps may be given, the student should not be expected to memorise them. An introduction to biochemical genetics and molecular biology is a must but details should be avoided. The exposure to anti-vitamins, anti-metabolites and enzyme inhibitors at this stage, will provide a basis for the future study of medical subjects. An overview of metabolic regulation is to be taught by covering hormonal action, second messengers and regulation of enzyme activities. Medical aspects of biochemistry should avoid describing innumerable functional tests, most of which are not in vogue. Cataloguing genetic disorders under each head of metabolism is unnecessary. A few examples which correlate genotype change to functional changes should be adequate.

At the end of the course the student would be able to acquire a useful core of information, which can be retained for a long time. Typical acid tests can be used to determine what is to be taught or what is to be learnt. A few examples are given below:

1. Need not know the structure of cholesterol. Should know why it cannot be carried free in plasma.
2. Mutarotation should not be taught. Student should know why amylase will not hydrolyze cellulose.
3. Need not know the details of alpha – helix and beta – pleats in proteins. Should know why hemoglobin is globular and keratin is fibrous.
4. Need not know mechanism of oxidative phosphorylation. Should know more than 90% of ATP is formed by this process.
5. Need not know details of the conversion of pepsinogen to pepsin. Should



- know hydrochloric acid cannot break a peptide bond at room temperature.
6. Need not remember the steps of glycogenesis. Should know that excess intake of carbohydrate will not increase glycogen level in liver or muscle.
  7. Need not know about urea or creatinine clearance tests. Should know the basis of increase of urea and creatinine in blood in renal insufficiency.
  8. Need not know the structure of insulin. Should know why insulin level in circulation is normal in most cases of maturity onset diabetes.
  9. Need not know the structural details of ATP. Should know why about 10g of ATP in the body at any given time meets all the energy needs.
  10. Need not know the mechanism of action of prolyl hydroxylase. Should know why the gum bleeds in scurvy.
  11. Need not know the structure of Vitamin K. Should know the basis of internal bleeding arising due to its deficiency.
12. Need not remember the structure of HMGCoA. Should know why it does not lead to increased cholesterol synthesis in starvation.

## **B) SYLLABUS**

### **1. CHEMISTRY OF BIOORGANIC MOLECULES**

**Carbohydrates:** Definition, biological importance and classification. Monosaccharide's – Isomerism, anomerism. Sugar derivatives, Disaccharides, Polysaccharides, Structures of starch and glycogen.

**Lipids:** Definition, biological importance and classification. Fats and fatty acids. Introduction to compound lipids. Hydrophobic and hydrophilic groups. Cholesterol. Bile salts. Micelle. Bimolecular leaflet.

**Proteins:** Biological importance.

**Amino acids:** Classification. Introduction to peptides.

**Proteins:** Simple and conjugated; globular and fibrous. Charge properties. Buffer action Introduction to protein conformation. Denaturation.

**Nucleic acids:** Building units. Nucleotides. Outline structure of DNA and RNA.

**High energy compounds:** ATP, creatine-p, GTP.

### **2. MACRONUTRIENTS**

**Energy needs:** Basal metabolic rate. Dietary carbohydrates, fibres. Dietary lipids, essential fatty acids. Nitrogen balance. Essential amino acids. Protein quality and requirement (methods for evaluation of protein quality to be excluded). Protein calorie malnutrition. Balanced diet.



### 3. MICRONUTRIENTS

**Vitamins:** Definition, classification, daily requirement, sources and deficiency symptoms. Brief account of water-soluble vitamins with biochemical functions. Vitamins A functions including visual process. Vitamin D and its role in calcium metabolism. Vitamin E. Vitamin K and gamma carboxylation. Introduction to antivitamins and hypervitaminosis.

**Minerals:** Classification, daily requirement.

**Calcium and phosphate:** sources, uptake, excretion, function. Serum calcium regulation.

**Iron:** sources, uptake and transport.

Heme and nonheme iron functions; deficiency.

**Iodine:** Brief introduction to thyroxine synthesis. General functions of thyroxine.

**Fluoride:** function, deficiency and excess. Indications of role of other minerals.

### 4. ENERGY METABOLISM

**Overview:** Outlines of glycolysis, pyruvate oxidation and citric acid cycle. Beta oxidation of fatty acids. Electron transport chain and oxidative phosphorylation. Ketone body formation and utilisation. Introduction to glycogenesis, glycogenolysis, fatty acid synthesis, lipogenesis and lipolysis. Gluconeogenesis. Lactate metabolism. Protein utilisation for energy. Glucogenic and ketogenic amino acids. Integration of metabolism.

### 5. SPECIAL ASPECTS OF METABOLISM

Importance of pentose phosphate pathway. Formation of glucuronic acid. Outlines of cholesterol synthesis and breakdown. Ammonia metabolism. Urea formation. Phosphocreatine formation. Transmethylation. Amines. Introduction to other functions of amino acids including one carbon transfer. Detoxication: Typical reactions. Examples of toxic compounds. Oxygen toxicity. Gout. Examples of genetic disorders including lysosomal storage disorders, glycogen storage disorders, glucose 6- phosphate dehydrogenase deficiency, hemoglobinopathies, inborn errors of amino acid metabolism and muscular dystrophy (one or two examples with biochemical basis will be adequate). Serum enzymes in diagnosis.

### 6. BIOCHEMICAL GENETICS AND PROTEIN SYNTHESIS

Introduction to nucleotides; formation and degradation. DNA as genetic material. Introduction to replication and transcription. Forms and functions of RNA. Genetic code and mutation. Outline of translation process. Antimetabolites and antibiotics interfering in replication, transcription and translation. Introduction to cancer, viruses and oncogenes.



## 7. ENZYME AND METABOLIC REGULATION

**Enzymes:** Definition, classification, specificity and active site. Cofactors. Effect of pH, temperature and substrate concentration. Introduction to enzyme inhibitors and inhibition, proenzymes and isoenzymes. Introduction to allosteric regulation, covalent modification.

Overview of hormones. Introduction to second messengers, cyclic AMP, calcium ion, inositol triphosphate. Mechanism of action of steroid hormones, epinephrine, glucagon and insulin in brief. Acid base regulation.

## 8. STRUCTURAL COMPONENTS AND BLOOD PROTEINS

**Connective tissue:** Collagen and elastin. Glycosaminoglycans. Bone structure. Structure of membranes. Membrane associated processes in brief.

**Haemoglobin:** functions. Introduction to heme synthesis and degradation.

**Plasma proteins:** classification and separation. Functions of albumin. A brief account of immunoglobulins. Plasma lipoproteins: Formation, function and turnover.

## 9. MEDICAL BIOCHEMISTRY

Regulation of blood glucose. Diabetes mellitus and related disorders. Evaluation of glycemic status. **Hyperthyroidism and hypothyroidism:** Biochemical evaluation. Hyperlipoproteinemias and atherosclerosis, Approaches to treatment.

**Jaundice:** Classification and evaluation.

**Liver function tests:** Plasma protein pattern, serum enzymes levels. Brief introduction to kidney function tests and gastric function tests. Acid base imbalance.

### PRACTICALS: Contact hours 50

1. Qualitative analysis of carbohydrates	4
2. Colour reactions of proteins and amino acids	4
3. Identification of nonprotein nitrogen substance	4
4. Normal constituents of urine	4
5. Abnormal constituents of urine	4
6. Blood glucose estimation	2
7. Serum total protein estimation	2
8. Urine creatinine estimation Demonstration	2
9. Paper electrophoresis charts/clinical data evaluation	2
10. Urea, uric acid creatinine profile in kidney disorders	1



# UNIVERSITY PRACTICALS EXAM – I BDS BIOCHEMISTRY

**MARKS MAX.-50**

<b>SL. No.</b>	<b>PROCEDURES</b>	<b>MARKS</b>	<b>TOTAL</b>
1.	Qualitative Analysis	1x20	20
2.	Quantitative Estimation	1x20	20
3.	Spotters	5x1	5
	Internal Assessment		5
<b>Total</b>			<b>50</b>

## **RECOMMEDED BOOKS:**

1. Textbook of biochemistry for dental students – Satyanarayana
2. Concise text book of Biochemistry (3rd edition) 2001, T.N. Pattabiraman
3. Lecture notes in Biochemistry 1984, J.K. Kandlish
4. Textbook of biochemistry for dental students – Vasudevan and Sreekumari

## **REFERENCE BOOKS:**

1. Text book of Biochemistry with clinical correlations 1997, T.N. Devlin
2. Harper's Biochemistry, 1996., R.K. Murray et.al
3. Basic and applied Dental Biochemistry, 1979, R.A.D. Williams & J.C. Elliot



### **3. DENTAL ANATOMY, EMBRYOLOGY AND ORAL HISTOLOGY**

#### **A)INTRODUCTION**

Dental Anatomy including Embryology and Oral Histology – a composite of basic Dental Sciences & their clinical applications.

#### **B)SKILLS**

The student should acquire basic skills in:

1. Carving of crowns of permanent teeth in wax.
2. Microscopic study of oral tissues.
3. Identification of deciduous & Permanent teeth.
4. Age estimation by patterns of teeth eruption from plaster casts of different age groups.

#### **C)OBJECTIVES**

After a course on Dental Anatomy including Embryology and Oral Histology,

1. The student is expected to appreciate the normal development, morphology, structure & functions of oral tissues & variations in different pathological/non-pathological states.
2. The students should understand the histological basis of various dental treatment procedures and physiologic ageing process in the dental tissues.
3. The students must know the basic knowledge of various research methodologies.

#### **D)SYLLABUS**

##### **I. TOOTH MORPHOLOGY**

###### **1. Introduction to tooth morphology:**

- » Human dentition, types of teeth, & functions, Palmer's & Binomial notation systems, tooth surfaces, their junctions – line angles & point angles, definition of terms used in dental morphology, geometric concepts in tooth morphology, contact areas & embrasures – Clinical significance

###### **2. Morphology of permanent teeth:**

- » Description of individual teeth, along with their endodontic anatomy & including a note on their chronology of development, differences between similar class of teeth & identification of individual teeth.
- » Variations & Anomalies commonly seen in individual teeth.

###### **3. Morphology of Deciduous teeth:**

- » Generalised differences between Deciduous & Permanent teeth.
- » Description of individual deciduous teeth, including their chronology of development, endodontic anatomy, differences between similar class of teeth & identification of individual teeth.



#### **4. Occlusion:**

- » Definition, factors influencing occlusion – basal bone, arch, individual teeth, external & internal forces & sequence of eruption.
- » Inclination of individual teeth – compensatory curves.
- » Centric relation & Centric occlusion – protrusive, retrusive & lateral occlusion.
- » Clinical significance of normal occlusion.
- » Introduction & Classification of Malocclusion.

## **II. ORAL EMBRYOLOGY**

### **1. Brief review of development of face, jaws, lip, palate & tongue, with applied aspects.**

#### **2. Development of teeth:**

- » Epithelial mesenchymal interaction, detailed study of different stages of development of crown, root & supporting tissues of tooth & detailed study of formation of calcified tissues.
- » Applied aspects of disorders in development of teeth.

#### **3. Eruption of deciduous & Permanent teeth:**

- » Mechanisms in tooth eruption, different theories & histology of eruption, formation of dentogingival junction, role of gubernacular cord in eruption of permanent teeth.
- » Clinical & Applied aspects of disorders of eruption.

#### **4. Shedding of teeth:**

- » Factors & mechanisms of shedding of deciduous teeth.
- » Complications of shedding.

## **III. ORAL HISTOLOGY**

1. Detailed microscopic study of Enamel, Dentine, Cementum & Pulp tissue. Age changes & Applied aspects (Clinical and forensic significance) of histological considerations – Fluoride applications, transparent dentine, dentine hypersensitivity, reaction of pulp tissue to varying insults to exposed dentine; Pulp calcifications & Hypercementosis.

2. Detailed microscopic study of Periodontal ligament & alveolar bone, age changes, histological changes in periodontal ligament & bone in normal & orthodontic tooth movement, applied aspects of alveolar bone resorption.

3. Detailed microscopic study of Oral Mucosa, variation in structure in relation to functional requirements, mechanisms of keratinisation, clinical parts of gingiva, Dentogingival & Mucocutaneous junctions & Lingual papillae. Age changes & clinical considerations.

#### **4. Salivary Glands:**

- » Detailed microscopic study of acini & ductal system.
- » Age changes & clinical considerations.



### **5. TM Joint:**

- » Review of basic anatomical aspects & microscopic study & clinical considerations.

### **6. Maxillary Sinus:**

- » Microscopic study, anatomical variations, functions & clinical relevance of maxillary sinus in dental practice.

### **7. Processing of Hard & soft tissues for microscopic study:**

- » Ground sections, decalcified sections & routine staining procedures.

### **8. Basic histochemical staining patterns of oral tissues.**

## **IV. ORAL PHYSIOLOGY**

### **1. Saliva:**

- » Composition of saliva – variations, formation of saliva & mechanisms of secretion, salivary reflexes, brief review of secretomotor pathway, functions, role of saliva in dental caries & applied aspects of hyper & hypo salivation.

### **2. Mastication:**

- » Masticatory force & its measurement – need for mastication, peculiarities of masticatory muscles, masticatory cycle, masticatory reflexes & neural control of mastication.

### **3. Deglutition:**

- » Review of the steps in deglutition, swallowing in infants, neural control of deglutition & dysphagia.

### **4. Calcium, phosphorous & fluoride metabolism:**

- » Source, requirements, absorption, distribution, functions & excretion, clinical considerations, hypo & hypercalcemia & hyper & hypo phosphatemia & fluorosis.

### **5. Theories of Mineralisation:**

- » Definition, mechanisms, theories & their drawbacks.
- » Applied aspects of physiology of mineralization, pathological considerations – calculus formation.

### **6. Physiology of Taste:**

- » Innervation of taste buds & taste pathway, physiologic basis of taste sensation, age changes & applied aspects – taste disorders.

### **7. Physiology of Speech:**

- » Voice production, resonators, production of vowels & different consonants – Role of palate, teeth & tongue.
- » Effects of dental prosthesis & appliances on speech & basic speech disorders.



**UNIVERSITY PRACTICALS EXAM – I BDS**  
**DENTAL ANATOMY, EMBRYOLOGY**  
**AND ORAL HISTOLOGY**

**MARKS MAX.–100**

<b>SL. No.</b>	<b>PROCEDURES</b>	<b>MARKS</b>	<b>TOTAL</b>
1.	Slides	6x5	30
2.	Spotters	4x5	20
3.	Carving	1x40	40
	Internal Assessment		10
<b>Total</b>			<b>100</b>

**RECOMMENDED TEXT BOOKS**

1. Orban's Oral Histology & Embryology – S.N. Bhaskar
2. Oral Development & Histology – James & Avery
3. Wheeler's Dental Anatomy, Physiology & Occlusion – Major. M. Ash
4. Dental Anatomy – its relevance to dentistry – Woelfel & Scheid
5. Applied Physiology of the mouth – Lavelle
6. Physiology & Biochemistry of the mouth – Jenkins



**SREE BALAJI DENTAL COLLEGE & HOSPITAL, CHENNAI**  
**I YEAR BDS TIME TABLE**

<b>DAYS</b>	<b>8.30 am to 9.30 am</b>	<b>9.00 am to 11.30 am</b>	<b>11.30 am to 12.30 pm</b>	<b>12.30 pm to 1.15 pm</b>	<b>1.15 pm to 3.15 pm</b>
<b>Monday</b>	Physiology Theory	Oral Histology Theory & Lab	Biochemistry (Theory)	<b>LUNCH BREAK</b>	
<b>Tuesday</b>	Biochemistry Theory	Preclinical Prosthodontics Lab – A Batch & B Batch	Physiology (Theory)	Physiology – A Batch Biochemistry-B Batch Lab	Physiology – B Batch Biochemistry Lab–A Batch
<b>Wednesday</b>	Dental Materials Theory	Preclinical Prosthodontics Lab – A Batch & B Batch	Physiology (Theory)	Dental Materials Lab A & B Batches (Prosthodontics)	Oral Histology Lab
<b>Thursday</b>	Oral Histology Theory	Anatomy Lab	Anatomy theory	Oral Histology Theory	Oral Histology Lab
<b>Friday</b>	Anatomy theory	Anatomy Lab	Dental Materials A & B Batches (Conservative Theory & Demonstration)		Remedial class / Value added courses
<b>Saturday</b>	<b>Anatomy Theory and Lab</b>				

