



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

Ordinance Governing
FELLOWSHIP COURSE IN FORENSIC ODONTOLOGY
Curriculum 2020-21

SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY

(A State Private University established under the Shri Dharmasthala Manjunatheshwara University Act No 19 of 2018 of Government of Karnataka and Notification No. ED 261 URC 2018 dated 19th December 2018)

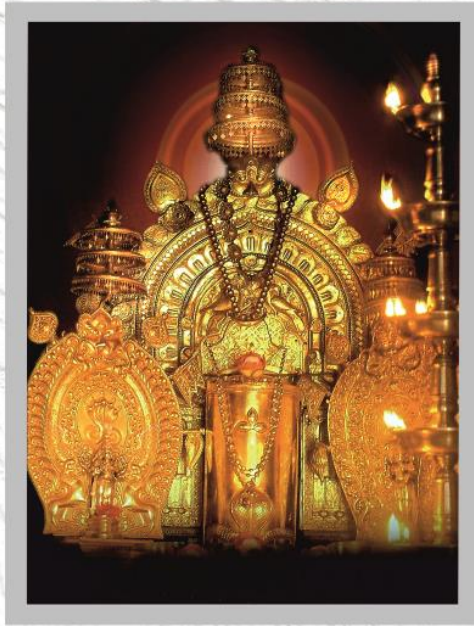
Manjushree Nagar, Sattur, Dharwad - 580 009, Karnataka, India

6th Floor, Manjushree Block SDM Medical College Campus

+91 836 2321127,2321126,2321125,2321124 sdmuniversity.edu.in

sdmuo@sdmuniversity.edu.in ; registrar@sdmuniversity.edu.in

|| Om Shri Manjunathaya Namaha ||



Shree Kshethra Dharmasthala

Edition Year : 2020-21

Shri Dharmasthala Manjunatheshwara University,

Manjushree Nagar, Sattur, Dharwad - 580 009, Karnataka, India

Phone: 0836-2321127

email: sdmuo@sdmuniversity.edu.in


Published by


Registrar

Shri Dharmasthala Manjunatheshwara University

6th Floor, Manjushree Block SDM Medical College Campus

Manjushree Nagar, Sattur, Dharwad - 580 009, Karnataka, India

 +91 836 2321127,2321126,2321125,2321124

 sdmuo@sdmuniversity.edu.in ; registrar@sdmuniversity.edu.in

 sdmuniversity.edu.in



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

THE LOGO

Poojya Dr D. Veerendra Heggade, Hon'ble Chancellor of the University, while searching for an appropriate Logo for the University, saw a photograph picked from Temple Architecture showing Wings of a Bird, sculpted in Indian style and wanted it to be incorporated in the logo for the University, as the Wings symbolize 'Spreading of Knowledge beyond Boundaries'. Further it was felt that the Central theme of the logo should be 'Rudra' (The Linga) with wings on each side. In this way, the logo of the University was conceptualized.

Hence:

1. The central part represents **Rudra** who Demolishes Darkness.
2. The Three **horizontal lines on The Linga** stand for Samyak Darshan (Right Belief), Samyak Gyan (Right Knowledge) and Samyak Charitra (Right Conduct).
3. The **Wings** symbolize spreading of Knowledge across the boundaries.
4. Base line "**Truth Liberates**" highlights the Purpose of Education: to liberate oneself unconditionally. It shows that it is not discipline, nor knowledge nor the efforts to freedom that liberate but Truth is what liberates you from all your conditioning and ignorance.

The overall significance of Shri Dharmasthala Manjunatheshwara University's Logo is:

Darkness of ignorance is destroyed by the flow of knowledge to bring Liberty to everyone, by realizing the truth. And, it should spread globally without the boundaries as hindrance.



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

VISION

Shri Dharmasthala Manjunatheshwara University will set the highest standards of teaching and learning by awakening the intelligence of the students and nurturing the creativity hidden in them by creating an environment where the ancient wisdom blends with modern science, to transform them into whole human beings to face the challenges.

MISSION

- ▶ To ensure that the journey of education is inspiring, pleasant and enjoyable.
- ▶ Attract the best of teachers and students.
- ▶ Achieve high principles of trust, love and spirituality in the students.
- ▶ Create a collaborative, diverse and exclusive community.
- ▶ Transform the student of today to be a leader of tomorrow and a better human being.
- ▶ Produce passionate teachers.
- ▶ Evolve innovative teaching techniques.
- ▶ Create a peaceful environment.
- ▶ Prepare the student to face the social challenges.
- ▶ Create a University of which the Nation is proud of.
- ▶ Be an effective partner in Nation Building.
- ▶ Create an Eco-friendly University.
- ▶ Create a University based on the principles of beauty, love and justice.

||Om Shanti! Om Shanti! Om Shanti||



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

6th floor, Manjushree Building, SDM College of Medical
Sciences & Hospital Campus, Sattur, Dharwad - 580009
Tel. No : +91 836 2477511, 2321115, 2321117
Fax: +91836 2463400
Email: registrar@sdmuniversity.edu.in

Ref: SDMU/Notif/14/2019

Date: 14/04/2019

NOTIFICATION

Starting of New Programs from the Academic Year 2019-20

- Ref: (1) Minutes of the 1st Meeting of Academic Council held on 20/03/2019
(Letter No: SDMU/AC/M-01/93/2019; Dated 21/03/2019)
(2) Minutes of the 2nd Meeting of Board of Management held on 22/03/2019
(Letter No: SDMU/BoM/M-02/94/2019; Dated 23/03/2019)

In exercise of the powers conferred under Statutes 1.1 (Powers – Section xii), 1.2 (Powers and Functions – Section vii), 1.4 (Powers and Functions – Sections ix & x) of Shri Dharmasthala Manjunatheshwara University, the BoM is pleased to approve and notify the below listed Programs / Courses for the year 2019-20.

Sl. No.	Program	Intake
FELLOWSHIP PROGRAMS IN MEDICAL FACULTY		
1	Fellowship in Neonatal Intensive Care	02
2	Fellowship in Nephrology / Renal Dialysis	02
3	Fellowship in Gynaec. Endoscopy	02
4	Fellowship in Reproductive Medicine	02
5	Fellowship in Consultation Liaison Psychiatry	02
6	Fellowship in Rhinology	02
CERTIFICATE COURSES IN MEDICAL FACULTY		
1	Certificate Course in Blood Bank Technician	04
2	Certificate Course in Histo-Technician	04
3	Certificate Course in Renal Dialysis	04
4	Advanced Certificate Course in Medical Microbiology Laboratory Technology	02
GOVERNMENT SPONSORED PROGRAM (BISEP)		
1	PG Diploma in Cellular & Molecular Diagnostics	20
FELLOWSHIP PROGRAMS IN DENTAL FACULTY		
1	Fellowship in Cleft Lip & Palate (Oral Surgery)	02
2	Fellowship in Forensic Odontology	08
3	Fellowship in Oral Implantology	02
Ph.D COURSES UNDER VARIOUS FACULTIES		
1	Ph.D. Course in Medical Faculty	12
2	Ph.D. Course in Dental Faculty	18
3	Ph.D. Course in Physiotherapy	03

The Ordinance shall be effective for the students joining the courses / programs during 2019-20 onwards.



To
Heads of Constituent Institutes, Shri Dharmasthala Manjunatheshwara University

REGISTRAR
REGISTRAR,
Shri Dharmasthala Manjunatheshwara
University, Dharwad

Copy for information to:

- (1) Hon'ble Vice Chancellor, Shri Dharmasthala Manjunatheshwara University
(2) Controller of Examinations, Shri Dharmasthala Manjunatheshwara University

**FELLOWSHIP IN FORENSIC ODONTOLOGY:
CURRICULUM, TEACHING-LEARNING METHODOLOGY AND ASSESSMENT**

1. Introduction

- SDM College of Dental Sciences and Hospital established India's first exclusive Department of Forensic Odontology in 2006, headed by an internationally educated forensic odontologist, Dr. Ashith Acharya, who is also the country's first qualified forensic dentist and currently India's most experienced specialist in this field
- In the 15 years since inception, the department has contributed to the development of forensic odontology in India, providing analysis and opinion in landmark cases, producing cutting-edge research and publications, and training dental students, dentists, police, judges, and forensic medical experts
- Considering the tremendous interest and curiosity in forensic odontology and the lack of quality training and practical exposure in forensic odontology among dentists in India, SDM University is now offering the Fellowship in Forensic Odontology

2. Title of the Course

- Fellowship in Forensic Odontology

3. Goals and Objectives

- Provide dentists with quality knowledge and skills in forensic odontology; stimulate interest in research, teaching and casework in forensic odontology among the dental fraternity in India and beyond
- Provide training and highlight communication abilities so that dentists:
 - Have sound knowledge of the basic theoretical and practical aspects of forensic odontology
 - Have a basic understanding of the different statistical analyses used in research and forensic casework
 - Are competent in proper collection of dental evidence related to cases of identification, ethnic and sex differentiation, age estimation and bite marks
 - Are able to analyse, evaluate, and present facts pertaining to forensic dental investigation
 - Have an awareness of dentists' ethical obligations and legal responsibilities in routine practice and forensic casework
 - Are competent to recognise forensic cases with dental applications when consulted by the police, forensic pathologists, lawyers and associated professionals and assist them in the same in its analysis and interpretation
 - Have the ability to write professional and factual reports pertaining to forensic odontological casework

4. Intake of Students

- Eight per batch

5. Eligibility for Admission

- Master of Dental Surgery

6. Selection/Admission Procedure

- Participation in forensic odontology conferences/forensic odontology workshops/research and publication/presentation in forensic odontology/other demonstrable involvement/experience in forensic odontology; students' vision for forensic odontology in India and beyond is to be considered

7. Duration of the Course

- One-year part-time

8. Monitoring Progress of Studies

- Reading Material sent every month in the first six months on the following topics
 - Introduction, Overview & History of Forensic Odontology
 - Dental Age Estimation 1 (Age Estimation in Children & Adolescents)
 - Dental Age Estimation 2 (Age Estimation in Adults)
 - Bite Mark Investigation
 - Comparative Dental Identification
 - Miscellaneous Topics in Forensic Odontology
- Regular interactions with students on a monthly basis and as necessary via telephone/email/online platforms prior to classroom contact programme to discuss the reading undertaken and clarify doubts
- Following classroom contact programme, students submit home assignments (which is assessed and forms part of the summative evaluation) in addition to telephonic/email/online interactions

9. Teaching Hours, Postings and Attendance

- Approx. 60 hours of classroom/contact session-based teaching-learning activities
- Additional face-to-face interactive sessions online as and when required
- One hundred percent attendance in the classroom contact sessions is mandatory and attendance in any prescheduled online interactions is compulsory
- Candidates failing the above attendance requirement will not be eligible to appear for examination

10. Scheme of Examination

- MCQ Test
 - 50 Marks MCQ test to be conducted on the last day of the contact session
- Forensic Report Writing
 - 50 Marks (25 marks for online/home assignment report writing submission + 25 marks for on-the-spot forensic case analysis on the last day of the contact session)
- Total 100 marks (50% for a pass)

11. Certification

- The Fellowship is awarded by the University to enrolled students who secure 50% marks and above

12. Stipend

- Not provided

13. Course Syllabus

- Introduction to forensic dentistry
 - Definition and history
 - Education in forensic odontology
 - Recent developments and future trends
- Dental identification
 - Definition
 - Basis for dental identification
 - Dental postmortem procedures
 - Dental record compilation and interpretation
 - Comparison of data, and principles of report writing
 - Identification in disasters and handling incinerated remains
 - Postmortem changes to oral structures
- Age estimation
 - Age estimation in children and adolescents
 - Advantages of tooth calcification over 'eruption' in estimating age
 - Radiographic methods of Demirjian et al., Kohler et al., Open Apex Method, etc.

- Age estimation in adults
 - Histological methods – Gustafson’s six variables and Johanson’s modification, dentine translucency, cementum incremental lines
 - Radiological method (Pulp-to-tooth area ratio, etc.)
 - Morphological Method – Average Stage of Attrition by Li and Ji
 - Biochemical methods (¹⁴C Nuclear Bomb Curve)

- Principles and procedures of report writing

- Sex differentiation
 - Sexual dimorphism in tooth dimensions (‘odontometrics’) and craniofacial bones
- Ethnic variations (‘racial’ differences) in tooth morphology
 - Description of human population groups
 - Genetic and environmental influences on tooth morphology
 - Description of metric and non-metric dental features used in ethnic differentiation

- Bite mark procedures
 - Definition and classification
 - Basis for bite mark investigation
 - Bite mark appearance
 - Evidence collection from the victim and suspect of bite mark
 - Analysis and comparison
 - Principles and procedures of report writing
 - Animal bite mark investigation

- Jurisprudence and ethics
 - Basics of civil law (including Consumer Protection Act)
 - Medical negligence and liability
 - Informed consent and confidentiality
 - Rights and duties of doctors and patients
 - Dental ethics

14. Training Skills

- Hands-on skills in application of free-to-download computer software used in forensic dental investigation – based on methods developed in the department of forensic odontology and peer-reviewed internationally and accepted – is covered extensively
- Hands-on skills in usage of digital calliper for tooth measurement
- Skills in diverse dental age estimation methods (including pre-solved case-based learning), digital methods of bite mark investigation (including pre-solved case-based learning), use of non-metric dental traits (using standard reference casts and mock cases), comparative dental identification (using a mock case)
- Skills in statistical analysis' usage in forensic dental investigation
- Standard methods in age estimation, bite mark investigation, sex assessment, population identification and basic comparative dental identification using international protocols and peer-accepted in-house developed techniques

15. Scheme of Practical Learning

- Contact Module 1 (at the end of four months)
 - *Day 1* Lecture 1 on Introduction, History and Overview of Forensic Odontology; Lecture 2 on Dental Age Estimation (Morphologic, Radiological, Histological and Biochemical Methods Covering Age Estimation in Prenatal and Neonatal Age Group, Children, Adolescents and Adults); Practical/Hands-on session covering Age Estimation from Radiographic Methods, including Demirjian's Method on up to 5 OPGs, Kohler's Method on up to 5 OPGs, Pulp-to-tooth Area Ratio on up to 5 subjects.
 - *Day 2* Practical/Hands-on session on Age Estimation using Dental Translucency on up to 5 Tooth Sections; Practical/Hands-on session on Age Estimation using Dental Attrition on up to 5 teeth/skeletal samples.
 - *Day 3* Case-based Learning (on 2-3 Pre-solved Cases that used Radiographic Age Estimation in Children and Adult) with Discussion on Results, Use of Statistics & Report Writing Procedures.
 - *Day 4* Lecture 3 on Sex Assessment from Teeth & Skull Bones (Description of Odontometric Sex Assessment and Skull/Mandible Features Used in Sex Assessment) and Population Identification from the Dentition (Global Population Classification, Description of Select Non-metric Dental Traits); Practical/Hands-on session on Sex Assessment from Teeth and Population Identification from the Dentition.

- Contact Module 2 (at the end of 8 months)
 - Day 5 Lecture 4 on Bite Mark Investigation (Definition, Classification, Description, Evidence Collection from Bite Mark Victim, Accused Biter and Conclusions/Opinions); Practical/Hands-on session on basic bite mark evidence collection methods, and 2D digital analysis and comparison of bite mark to suspect's teeth on mock/demo case.
 - Day 6 Case-based Learning (on 1-2 Pre-solved Cases of Human Bite Marks) with Discussion on Results & Report Writing Procedures.
 - Day 7 Case-based Learning (in Bite Mark Investigation) Continues.
 - Day 8 Lecture 5 on Comparative Dental Identification (Necessity of Postmortem Identification, Steps in Antemortem and Postmortem Dental Evidence Collection, Comparison of Ante- and Postmortem Dental Data, Conclusions in Identification and Challenges in Postmortem Dental Examination); Practical/Hands-on session on mock/simulated post-mortem dental identification procedures, including report writing;
 - MCQ Test + Age Estimation Forensic Case Analysis

NOTE: ALTERNATIVE TO TWO CONTACT MODULES OF FOUR DAYS EACH, A SINGLE CONTACT MODULE OF ONE WORKING WEEK MAY BE ORGANISED AFTER SIX MONTHS, WITHOUT COMPROMISING THE TRAINING QUALITY AND HOURS SPENT. THIS MAY BENEFIT LONG DISTANCE TRAVELLING STUDENTS AS IT CIRCUMVENTS THE NEED FOR MULTIPLE TRIPS TO DHARWAD. IN SUCH AN EVENT, PART OF THE CONTACT, ESPECIALLY LECTURES AND CERTAIN COMPUTER-BASED TEACHING-LEARNING, MAY BE ORGANISED ONLINE]

16. Methods of Learning

- Didactics with one-on-one discussion
- Practical hands-on with one-on-one interaction
- Pre-solved case-based learning with one-on-one interaction
- Home assignments
 - Forensic Report Writing where students are expected to submit independently written forensic reports on the cases undertaken by them during the contact programme; a total of four reports (two each in age estimation and bite mark investigation) are to be submitted online/by email within three weeks after the end of each contact module.

17. Learning Resource Material

- Forensic Odonto-Stomatology by IOFOS (edited by Hrvoje Brkic)
- Manual of Forensic Odontology (edited by David R. Senn and Richard A. Weems)
- Forensic Odontology: Principles and Practice (edited by Jane Taylor and Jules Kieser)
- Forensic Odontology: An Essential Guide (by Catherine Adams, Romina Carabott, Sam Evans)
- Forensic Dentistry (edited by David R. Senn and Paul G. Stimson)
- Forensic Dental Evidence: An Investigator's Handbook (by C. Michael Bowers)



SDM College of Medical Sciences & Hospital



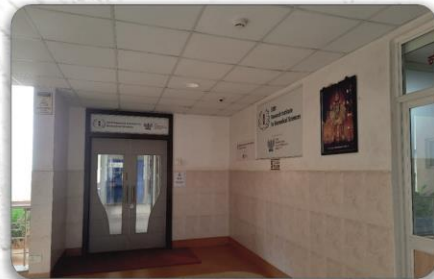
SDM College of Dental Sciences & Hospital



SDM College of Physiotherapy &
SDM Institute of Nursing Sciences



Shri Dharmasthala Manjunatheshwara University



SDM Research Institute for Biomedical Sciences



Panoramic View of Campus