



**PRAVARA INSTITUTE OF MEDICAL SCIENCES
(DEEMED TO BE UNIVERSITY)**

Loni, Tal. Rahata, Dist. Ahmednagar 413736
NAAC Re-accredited with 'A' Grade

SYLLABUS

**Diploma in Central Sterile Supply Department (CSSD)
(Department of Microbiology)
(Academic Council Meeting Dated 20th March, 2019)**

1. Nomenclature of Degree

Post Graduate Diploma in Central Sterile Supply Department (CSSD)

2. University

Pravara Institute of Medical Sciences (DU), Loni

3. Constituent unit

Rural Medical College

4. Department

Department of Microbiology, RMC and Central Sterile Supply Department,
Pravara Rural Hospital

5. Faculty

This program is offered under the "Faculty of Medicine"

6. Pattern of the Program

Annual or yearly pattern

7. Duration of the Program

One year

8. Medium of instruction

English

9. Background of the program

As of today, there are no formal degrees or diplomas being awarded in Central Sterile Supply Department training. This program has been specially designed to meet the increasing demand for qualified and well trained professionals in the field of Central Sterile Supply Department technology. The program aims to develop Central Sterile Supply Department professionals with sound theoretical and systematic practical knowledge.

10. Objective of the Program

Provide the profession and community with trained qualified CSSD technologist.

11. Expectations from students qualifying the post graduate diploma

- i. Acquire the updated knowledge about CSSD and its core activities
- ii. Also will know the location and plan of an ideal CSSD
- iii. In addition to it, the student will be briefed on the basic human functions
- iv. Also the student will be updated about pathological investigations as well as basic Microbiology and infection control practices
- v. Will be able to understand the importance of asepsis, sterilization and disinfection in clinical practice.
- vi. Acquire the updated knowledge on steam sterilization techniques and monitoring techniques
- vii. Maintenance part of CSSD equipment as well as Engineering aspects
- viii. Complete assembly of instruments, linen and dressing materials
- ix. Get to know the importance of utility and maintenance of surgical instruments
- x. Be able to prepare a complete surgical sets as per the requirement of the operating surgeons

12. Eligibility for admission

Applying candidate should have completed B.Sc degree in life Sciences / Chemistry/ Physics from a recognized Indian/ Foreign university.

Or

B.Sc (Nursing)

Candidate should have passed with minimum percentage of marks 50% aggregate (45% for reserved category students)

13. Selection procedure

Admission will be purely on merit basis.

14. Program Structure:

- (i) The program contains three theory papers
 - PGDCSSD 101: Basic Microbiology and CSSD technology.

- PGDCSSD 102: Patient safety and infection control.
 - PGDCSSD 103: Engineering aspects and advanced instrumentation in CSSD.
- (ii) Practical (PGDCSSD 111) based on various aspects of CSSD technology.
- (iii) Rotatory postings during course (CSSD, Operation theatres, ICUs, Microbiology Laboratories, Infection control team).

15. Syllabus

Paper I

Code: PGDCSSD 101

Name of paper: Basic Microbiology and CSSD technology.

1. History and introduction to Microbiology.
2. Classification of microorganisms
3. Morphology and physiology of bacteria.
4. Methods for isolation and identification of bacteria
5. Microorganisms of medical importance
 - Bacteria (Gram positive cocci and bacilli, Gram negative cocci and bacilli, Spirochetes Mycobacteria, Mycoplasma, Chlamydiae)
 - Viruses (General properties and classification of viruses, HIV, Hepatitis Viruses)
 - Fungi (General aspects and classification, superficial and subcutaneous mycoses, systemic and opportunistic mycoses)
6. Normal flora of human body.
7. Basic of sterilization and disinfection
8. Approach to sterilization and disinfection
9. Sterilization and disinfection of healthcare equipment
10. Spaulding scheme and concern with its implementation
11. Role of CSSD in Health Care Delivery, Planning and layout
12. Surgical Instruments : Criteria for Purchase and Maintenance
13. Preparation and Supplies for Sterilization
14. Endoscopes and it's Sterilization

15. Disinfection in the hemodialysis unit
16. Assembly of sets / Linen/ Dressing materials
17. Call back system in case of detection of failure
18. Quality monitoring indicators in CSSD
19. Quality assurance program.

Paper II

Code: PGDCSSD 102

Name of paper: Patient safety and infection control.

1. Concept of quality patient care.
2. Quality improvement approaches
3. Standard norms for safe patient care in healthcare.
4. Quality improvement tools
5. Introduction to NABH guidelines
6. Health-associated infections: Facts and concept
7. Organization of an Infection control programme
8. Surveillance of hospital acquired infection
9. Hand hygiene
10. Personal Protective equipments
11. Standard and isolation precautions
12. Prevention and control of hospital acquired infection
13. Needle stick and sharp injuries
14. Post exposure prophylaxis
15. Biomedical waste management
16. Environmental safety
17. Role of CSSD in infection prevention and control
18. Regulatory framework for disinfectants and sterilants

Paper III

Code: PGDCSSD 103

Name of paper: Engineering aspects and advanced instrumentation in CSSD.

1. Basic engineering aspects of various sterilization instruments
2. Design and care of surgical instruments
3. Constructional features and care of medical devices
4. Constructional features and care of dental instruments
5. Sterilization process monitoring: mechanical indicators
6. Steam sterilization: scientific and engineering aspects
7. Troubleshooting in steam sterilization
8. ISO standards and future of parametric release of steam sterilization
9. Ethylene oxide sterilization monitoring: mechanical indicators
10. Ethylene oxide sterilization: scientific and engineering aspects
11. Troubleshooting in Ethylene oxide sterilization
12. ISO standards and future of parametric release of Ethylene oxide sterilization
13. Washer disinfectors: engineering and scientific aspects
14. New sterilization technologies
15. Reuse of single-use devices
16. Water quality in CSSD

16. Teaching Strategies

1. A total of 250 working days (approximately) will be available for teaching, learning and evaluation. It is further divided in to 50% teaching hours and 50% of the hours will be assigned for outside classroom sessions in CSSD.
2. Candidates undergoing training are required to maintain a record of their academic and service activities to provide an account of progress made by them.
3. Candidates are required to carry the record book and get the entries made regularly.
4. Faculty is responsible for counter-signing the entries made by the student. The record book has to be submitted to the Head of Department at the end of course.

17. Attendance

Minimum attendance- compulsory 80% for practical session and 75% for theory session.

18. Assessment/ Examination

University Examination will be conducted after completion of one year. The written examination will be conducted for three theory papers for 100 marks each (Total 300 marks) and 100 marks for practical examination. However, a prelim exam will be conducted and candidate should score atleast 35% for appearing to university examination.

The pattern of question paper will cover the entire syllabus. The theory paper will consists of Long answer and Short answer types of questions. The practical examination will cover the entire aspects of practicals, posting and all other aspects which are not included in theory.

19. Pattern of question paper (Total time allotted: 3hours, Total marks: 100)

Question 1. Long answer question (15 marks)

Question 2. Long answer question (15 marks)

Question 3. Long answer question(15 marks)

Question 4. Long answer question(15 marks)

Question 5. Short answer questions (any 4 out 5) (5x4=20 marks)

Question 6. Short answer question (any 4 out 5) (5x4=20 marks)

20. Pattern for conducting practical examination (Total time allotted: 1day, Total marks:100)

1. Long Exercise. (30 marks)
2. Short Exercise. (10 marks)
3. Short Exercise (10 marks)
4. Spots (10 marks) (10 spots 1 marks)

5. Viva Voce (30 marks)

6. Journal (10 marks)

All components of this assessment will be evaluated by one internal and one external examiner appointed by the university during the exam. The examiners should have post graduate qualification in medical microbiology and should be associated with teaching institute.

21. Rule of Passing

The student will be declared as pass only when he/she scores minimum 50 % in theory & practical, separately. In theory exam, student should have at least 50% in aggregate of three papers (150 out of 300).

22. Intake per batch

Maximum 25 per course

23. Fees and payments

- The students have to pay Rs.30,000 as tuition fees for entire course.
- The fee structure will be revised/updated from time to time as and when it is necessary.
- Administrative expenditure as per rules of PIMS (DU)
- Exam as per rules of PIMS (DU)
- Candidates will bear hostel and mess expenditure, which may be available as per rules of PIMS (DU)

24. Department and Institute offering the programme and overall coordination

Academic Activities shall be conducted under the guidance of Dean Rural Medical College & HOD Microbiology.

25. Certification Authority and Design of Certificate.

- Certification authority- HOD Microbiology and Dean RMC
- Marksheet design-As per PIMS (DU), Loni

26. Infrastructure Requirements

Class rooms/Practical Halls/ Hospital / Clinical / PHC/CSSD/OT any other-
Class rooms, Practical Hall of Microbiology Dept, PRH will be used.

27. Annual Meta Evaluation and up gradation of the content and delivery of the programme

Department of Microbiology and CSSD

28. Central Documentation

Department of Microbiology, RMC and CSSD

29. Grievance Redressal and Appeals mechanitary/ mechanism

Registrar, PIMS DU

30. Format of Application form

