Needs: Local: Pink, National: Orange, Regional: Blue, Global: Green

# BACHELOR OF SCIENCE IN DIALYSIS THERAPY TECHNOLOGY (BSc. DTT) COLLEGE OF MEDICAL TECHNOLOGY & ALLIED HEALTH SCIENCES, SGPGIMS, LUCKNOW

#### Title of Course

Bachelor of Science in Dialysis Therapy Technology (BSc. DTT)

#### Learning Objectives: At the completion of this course, the student should be able to -

- 1. Understand and apply the principles of dialysis and skills necessary to give safe and effective care to the individual undergoing hemodialysis treatments
- 2. Demonstrate the use of hemodialysis equipment with an understanding of the process of operating dialysis equipment and alternate dialysis procedures
- 3. Function as a dialysis professional under the supervision of the physician or nephrologist in a dialysis facility that provides dialysis treatment to the individuals diagnosed with acute or chronic kidney disease.
- 4. Assess the patient for any complications with an understanding of the problem and recognize the need to report the complications to the physician or nephrologist
- 5. Respond effectively to the physical and emotional needs of the patient undergoing dialysis treatment.
- 6. Develop the ability to understand operation, routine maintenance, identification of malfunction in equipment, troubleshooting and minor repair in equipment used in dialysis unit such hemodialysis machine, water treatment plant, dialyzer reprocessing machine, etc.

#### Expectation from the future graduate in the providing patient care

- 1. The primary goal of the Degree in Dialysis Therapy Technology program is to prepare accomplished professionals in Dialysis Therapy Technology with a specific emphasis on clinical skills and technical knowledge.
- 2. Trainees acquire the knowledge and procedural skills necessary to deliver a high standard of care to the patients with chronic kidney disease requiring renal replacement therapy.
- 3. They will also receive training to conduct research in the field of dialysis.
- 4. This course involves all aspects of care for patients undergoing chronic hemodialysis and continuous ambulatory peritoneal dialysis (CAPD).
- 5. Overall goal of this training is to foster the trainee's development into an independent care provider in the field of dialysis.
- 6. The program intends for its graduates to contribute to a new generation of academic dialysis professional equipped to address the challenging problems in renal replacement therapy.

#### Eligibility for admission:

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

1.Age: Candidate should have completed 17 years of age at the time of admission and not >30 years as on 31st December of the year.

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- 2. Admission Qualification/Criteria Candidates seeking admission in different BSc courses should have passed 10 + 2 examination or its equivalent conducted by Boards/Council established by State Govt./Central Govt with Physics, Chemistry and Biology with English, or vocational course in MLS/MLT at 10+2 level and secured minimum percentage of marks: 50% aggregate and 5 % relaxation is permitted to the reserved category candidate)
- 3. The Candidate should be medically fit.
- 4. Departmental / sponsored candidates will have to take the same test to qualify the course; however, a separate merit list will be prepared for sponsored candidates. Upper age limit may be relaxed for sponsored candidates.
- 5. Reservation for SC/ST/OBC categories as per Govt of India rules.
- 6. Sponsored candidate from SAARC countries or from Government of U.P There shall be 01/02 additional seats in each BSc course for sponsored candidates as mentioned in the Table 1.

#### Selection procedure

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

The selection of candidates will be following the entrance examination conducted by the Institute comprising of 100 MCQs in the following subjects - Physics (30marks), Chemistry (30 marks, Biology (30 marks) and General knowledge (10 marks).

#### **Duration of the course**

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

- 1. The minimum duration of course will be 4 (3+1) year i.e. 6 semesters followed by one year compulsory internship. Semester examinations will be performed on a 6 monthly basis.
- 2. Maximum duration to complete the course (all papers of 6 semesters and 1 year internship) will be 8 years from the date of admission.

#### Medium of instruction:

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

English shall be the medium of instruction for all the subjects of study and for examination of the course.

#### Attendance

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

A candidate has to secure minimum 80% attendance in overall with at least75% attendance in theoretical and 80% in Skills training (practical) for qualifying to appear for the final examination. No relaxation, whatsoever, will be permissible to this rule under any ground including indisposition, etc.

Fees for the course will be in accordance to rules and regulation setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

#### TOTAL NUMBER OF TRAINEES

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Twelve students (12) will be admitted in each academic year (including maximum 02 sponsored candidates from SAARC or developing countries or from Government institutes of the country. However, if sponsored candidate are not available then seats may be filled up from open students).

#### **HOSTEL FACILITY**

Hostel will be provided to the students in the campus, if available.

#### **STIPEND**

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

#### **ACADEMIC SESSION**

Academic session will start from August / September month of every year in accordance to rules and regulation setup by the CMT, SGPGIMS, Lucknow. Each semester will consist of academic work equivalent to 90 teaching days.

#### FACULTY OF TRAINING

- 1. Faculty, Department of Nephrology, SGPGIMS, Lucknow
- 2. Faculty, College of Medical Technology, SGPGIMS, Lucknow
- 3. Faculty working in other departments of SGPGIMS, Lucknow
  - a. Department of Pathology
  - b. Department of Microbiology
  - c. Department of Haematology
- 4. Guest faculty as and when required for specialized teaching

\*The classes for foundation courses and some common papers like Anatomy, Physiology, Biochemistry, General Pathology, General Microbiology, Pharmacologyand nutrition will be conducted at College of Medical Technology, SGPGIMS.

\*\* Theory and practical classes/ demonstration will also be taken by senior residents and technical staff members working in Department of Nephrology, SGPGIMS.

#### Curriculum Outline

Theory classes and practical training will be distributed over 6 semesters. For self directly learning and clinical education, the students will be posted in NephrologyDepartment, where they will engage themselves in the day-to-day work together with the employed dialysis technologists. Students will participate in seminarand maintain a log book to keep record of their day to day practical work which will be signed by the tutor/lecturers/guest faculty.

Last year (7th and 8th semester) will be rotatory internship training focusing mainly on practical work.

Course curriculum and syllabi for the course shall be as prescribed by Board of studies and approved by the Academic Board of the Institute from time to time.

For semester wise subject distribution, teaching hours and Exam please see Annexure - 1
For detailed syllabus - Please see annexure -2

#### **EXAMINATION**

As per rules and regulations setup by the CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

(a) Internal assessment (IA)

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The institute will conduct internal assessment exams based on pattern set

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Lt Col Varun Bajpai VSM Executive Registrar SGPGIMS,Lucknow by the College of medical technology, SGPGIMS. One internal assessment will be conducted in each semester after completion of about 75% of syllabus and at least a month before end semester exam.

Internal Assessment will be conducted at the level of course coordinator. A student who could not appear in an internal assessment examination due to valid reason will be allowed one more chance to take the same examination. If even after that, the candidate does not appears in the internal exam, he will be given zero marks for that internal exam. Weightage of the Internal assessment will be 20% of the total marks of the particular paper. Internal assessment may or may not include a practical, will be as per the curriculum defined. Theory marks of internal assessment will be added in the final semester theory marks. Similarly, practical marks of internal assessment will be added into the final semester practical marks. Marks of logbook / seminar / case presentation will be added in the practical marks of internal assessment.

#### (b) Log book /Seminar

Every candidate shall maintain a log book for prescribed subjects. Students will maintain record of their day to day practical work/ clinical posting which will be signed by the tutor/lecturers/guest faculty. In additional the student will document seminars and the important radiological procedures and topics as suggested / assigned by the guest faculty / tutor. The log book shall be scrutinized and certified by the concerned faculty and course coordinator and will be presented in the final examination.

- 5 marks have been allotted for the log book for some core papers.

Students will be encourage to present seminars and journal clubs. 10 marks will be given for seminar /case presentation based on the content of presentation, fluency and ability to explain the topic and will be included in internal assessment practical marks.

#### (c) End semester examination:

There shall be a 6 monthly end semester examinations, one each at the end of each semester. Candidate shall be required to appear in all papers of the semester as specified in the course. Practical exams will be conducted for relevant papers as mentioned in curriculum. Practical exam will be divided in spotting / performance of procedures and table viva.

## Type & number of questions for theory examination of core papers:

There shall be one theory examination for each core paper. The duration of theory external examination will be of 3 hours. Distribution of type of questions shall be as given below:

- 1. Long answer types 06 ( to attempt 05) marks for each long answer question will be 10% of total marks for that paper.
- 2. Short answer types 12 (to attempt 10) marks for each short answer question will be 5% of total marks for that paper.
- \* Exam for foundation papers will be as per rules and regulation set by CMT, SGPGIMS in concurrence with other B.Sc. course.

#### Allotment of marks

The allotment of marks in final examination should include theory, practical and internal assessment as mentioned in the curriculum table.

#### Computation of SGPA and CGPA

(a) Table for conversion of percentage into grade points

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Level	Outstan ding	Excelle nt	Very Good	Good	Above Average	Average	Pass	Fail	Abse
Letter Grade	0	A+	Α	B+	В	C	P	F	Ab
Marks %	90.1-	80.1-90	70.1- 80	60.1- 70	55.1-60	50-55	Passed with grace	< 50	0
Grade Points	10	9	8	7	6	5.5	5	0	0

## Credit score of a particular paper = Grade point X Credits

(b) SGPA (Semester grade point average) is the ratio of sum of the product of the number of credits with the grade points scored by student in all the paper, the sum of the number of credits of all the courses undergone by a student.

Sum of credit scores of all papers of a semester (grade point scored x credits) SGPA= total credit points for that semester

- c) The CGPA (Cumulative Grade Point Average) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of the course.
- (d) The SGPA shall be calculated at end of each semester and CGPA shall be calculated after clearing all papers of 1st to 6th semesters and shall be rounded off to 2 decimal places.

### APPOINTMENT OF EXAMINERS

All examiners will be appointed by In-charge examination cell, from the list of examiners approved in the respective courses.

- 1. Convenor Head, Department of Radio-diagnosis, SGPGIMS, Lucknow
- 2. Theory: The board of examiners for end semester theory examination shall consist of 50% external and 50% internal examiners.
- 3. For the practical examination there shall be one internal (of the institute) and one external examiner.

Internal examiner (01)- Course coordinator, Department of Nephrology, SGPGIMS / Faculty, Department of Nephrology, SGPGIMS, Lucknow / Faculty, College of Medical Technology, SGPGIMS, Lucknow.

External examiner (01) - Tutor / Lecturer / faculty working in department of Nephrology of a teaching hospital, or paramedical college belonging to the particular specialty.

Eligibility of examiner: Minimum 5 years teaching experience after postgraduation.

## RE-CHECKING / RETOTALLING OF ANSWER PAPERS

In accordance to rules and regulation setup by the CMT, SGPGIMS, Lucknow.

PASS, PROMOTIONCRITERIA & BACKLOG

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Pass / promotion / backlog papers rules will be as per the regulations formulated by CMT, SGPGIMS, Lucknow and is subject to change as per decision of the Institute from time to time.

## Re-admission after break of study:

Re-admission and study break rules with be in accordance to rules and regulation setup by the CMT,

#### Results:

- 1. The Sanjay Gandhi Postgraduate Institute of Medical Science, Lucknow, will publish the result of examination as soon as possible after the examination has been held.
- 2. Successful candidate shall be classified as under on the basis of aggregate marks obtained in (a) Those who obtain 60% or more

1st Division

(b) Those who obtain less than 60%

2<sup>nd</sup> Division Distinction in paper/s concerned

(c) Those who obtained 75% or more marks in the paper/s

3. Backlog attempts will be mentioned in the result.

#### Award of Degree:

The degree will be awarded to the candidate only after he/she completes the following:

(a) Has cleared all the examination of 1st to 6th semester.
 (b) Has completed the one year internship (7th and 8th semester).

(c) His/her work and conduct during the period of training have been satisfactory.

(d) Degree will be awarded at the convocation held at the institute after completion of the

## Cancellation of admission

Admission of a student may be cancelled in accordance to rules and regulation setup by the CMT,

- a) He / She not found qualified as per AICTE/ State Government norms and guideline or the eligibility criteria prescribed by the CMT, SGPGIMS, Lucknow.
- b) He / She is unable to complete the course with in the stipulated time as prescribed above. c) He/She is found involved in discipline in the college or institute.

In addition to above rules, all other rules and regulations formulated by CMT, SGPGIMS, Lucknow will be applicable and is subject to change as per decision of the Institute from time to time.

#### Leave:

Summer and winter vacation and permitted leave will be given in accordance to rules and regulation

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