

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

			Teaching and Evaluation Scheme									
			1	Theory		Prac	tical				70	
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS	
DDT201	СС	Anatomy & Physiology II	60	20	20	0	0	3	0	0	3	

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Course Educational Objectives (CEOs): The students will

CEO1: rationalize the fundamental knowledge of the human body system.

CEO2: understanding detailed functioning about human system histology.

CEO3: gain knowledge about clinical conditions of different body systems.

Course Outcomes (COs): Student should be able to

CO1: understand the human system with emphasis on normal and pathophysiological conditions.

CO2: acquainted with the different body systems and their prime functions.

CO3: Identification of the different clinical conditions with their signs and symptoms.

CO4: Learn some important clinical identification processes of diseases.

Unit-I

Blood:

- Formation of Blood Cells. Functions of Blood.
- Structure of Haemoglobin. Functions of Haemoglobin.
- Anemia, Polycythemia, Thrombocytopenia, Leukemia.

^{*}Teacher Assessment shall be based on the following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

				Teachin	g and Eva	luation S	cheme				
			T	heory		Pract	ical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT201		Anatomy & Physiology II	60	20	20	0	0	3	0	0	3

 $[\]boldsymbol{Legends} \colon \boldsymbol{L} \text{ - Lecture; } \boldsymbol{T} \text{ - Tutorial/Teacher Guided Student Activity; } \boldsymbol{P} - Practical; \quad \boldsymbol{C} \text{ - Credit; }$

Unit-II

Circulatory System II:

- Cardiac Output, Cardiac Index.
- Blood Pressure: Determination of BP. Different methods for BP measurement.
- Interpretation of Normal ECG.

Unit-III

Respiratory System II:

- Lung volumes and Capacities.
- O₂ Transportation.
- CO₂ Transportation.

Registrar

^{*}Teacher Assessment shall be based on the following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

			Teaching and Evaluation Scheme									
			T	heory		Pract	ical					
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS	
DDT201	CC	Anatomy & Physiology II	60	20	20	0	0	3	0	0	3	

 $\boldsymbol{Legends} \colon \boldsymbol{L} \text{ - Lecture; } \boldsymbol{T} \text{ - Tutorial/Teacher Guided Student Activity; } \boldsymbol{P} - Practical; \quad \boldsymbol{C} \text{ - Credit; }$

Unit-IV

Digestive system II:

- Digestion of Carbohydrate.
- Digestion of Protein.
- Digestion of Fats.

Unit-V

Renal system II:

- Glomerular Filtration Rate.
- Formation of Urine.
- Composition of urine and its abnormal constituents.

Registrar

^{*}Teacher Assessment shall be based on the following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

			Teaching and Evaluation Scheme								
			The	eory		Pract	ical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT201(P)	CC	Anatomy & Physiology II (Practical)	00	00	00	30	20	0	0	2	1

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Course Educational Objectives (CEOs): The students will

CEO1: identify various bones present in the human body.

CEO2: develop understanding about vitals of human cardiovascular system and factors affecting them.

systems.

CEO3: understand, analyze and interpret various histological tests for blood.

Course Outcomes (COs): Student should be able to

CO1: understand and identify the human bones with emphasis on general anatomy and general histology.

CO2: distinguish various human bones based on their respective

CO3: memorize and perform various clinical tests.

CO4: analyze and interpret the results of various blood tests.

List of Practicals

- Hb estimation by different manual methods.
- Blood smear preparation.
- Phlebotomy Blood grouping.

Reference book:

- 1. Basic Anatomy & Physiology by N. Murgesh 5th Edition
- 2. Difore Atlas of normal Histology Ed. 6 Lea & Febiger 1989
- 3. CC Chaturgee latest edition
- 4. Human Anatomy -- Chaurasia Vol. I, II & III
- 5. Human Anatomy -- A.K. Dutta Vol. I, II & III
- 6. Cunningham's Manual of Practical Anatomy -- Vol. I, II & III

Chairperson

Board of Studies Paramedical and Allied Sciences Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Chairperson

Faculty of Studies Sciences Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore **Controller of Examinations**

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Registrar

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

^{*}Teacher Assessment shall be based on the following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

			Teaching and Evaluation Scheme									
				Theory		Pract	ical					
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	T	P	CREDITS	
DDT202	CC	Renal Diseases-II	60	20	20	0	0	3	0	0	3	

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Course Educational Objectives (CEOs): The students will -

CEO1: Conferring basic knowledge about renal diseases.

CEO2: Understanding of how diseases develop.

CEO3: Comprehensive knowledge about treatment of diseases.

CO1: 1. An understanding of pathophysiology of Diseases

CO2: Understanding of the treatment processes in the living system.

CO3: Understanding the mechanism and the importance of dialysis in renal diseases.

Unit I:

Acute renal Failure I:

Symptoms, Diagnosis and Pre & Post Dialysis Management

Unit II:

Vitamins and co-enzymes:

Vitamin D synthesis, metabolism and Vitamin D deficiency in Nephrotic syndrome.

Unit III:

Chronic Renal Failure I:

Symptoms, Diagnosis and Pre & Post Dialysis Management

Unit IV:

Urinary Tract Infections I:

Symptoms, Diagnosis and treatment.

Vishwavidyalaya, Indore

Controller of Examinations

^{*}Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

				Teac	hing and E	Evaluatio	n Scheme	•			
				Theory		Pract	ical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT202	CC	Renal Diseases-II	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

Unit V:

Diabetes II:

- Diagnosis of Type 1 & Type 2 diabetes.
- Effects of type 2 diabetes on human kidneys.
- Long term use of insulin on human kidneys.

^{*}Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

				Teachi	ng and Eva	aluation	Scheme				
				Гheory		Pract	tical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT202 (P)	СС	Renal Diseases-II (Practical)	00	00	00	30	20	0	0	2	1

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Course Educational Objectives (CEOs): The students will-

CEO1: understand, analyze and interpret test for macronutrients, blood and Urine.

Course Outcomes (COs): Student should be able to -

CO1: memorize and perform various tests.

CO2: analyze and interpret the results of various tests.

List of Practical's:

- 1. Sign and Symptoms analysis of AKD
- 2. Sign and Symptoms analysis of CKD
- 3. Indication and Contraindication analysis of AKD in Dialysis
- 4. Indication and Contraindication analysis of CKD in Dialysis

Reference book:

1. Textbook of renal disease by Maheshwari Kata a*, Harkesh Arora b, Rajeshwari Ramachandran c, Varun Victor d, Nihar Jena e, Abid Rizvi f, Prashanth Reddy Yella g,

Atul Bali h, Deepak Chandramohan i and Roopa Naik j

- 2. B.C. Bhagavan (2017) Text Book of Renal Dialysis, Clement Publications.
- 3. Pharmacology in Rehabilitations- Ciccone

^{*}Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

				Tea	ching and	Evaluati	ion Schem	ıe			
			ŗ	Theory	ı	Pract	ical				70
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT203	СС	Background of Dialysis-II	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; *Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.

Course Objectives

- 1. To explain the history of Dialysis
- 2. To provide basic understanding of various stages of evolution of Dialysis.

Course Outcomes

- 1. Students will be able to understand Dialysis process.
- 2. Students will be able to understand various types of dialysis processes.

Unit-I

History of Dialysis II

- Recent developments in dialysis.
- Historical basis of Haemodialysis.
- The first chronic Haemodialysis.

Unit-II

- Roll of hormones like Erythropoietin, Renin enzyme.
- Complication and management during dialysis.
- Dialysis in HIV/ HBsAg/ HCV positive patients.
- Solute transport mechanism in dialysis.
- Dialyzer



DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

				Tea	ching and	Evaluati	ion Schem	ıe			
				Theory	Г	Pract	ical				7.0
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT203	СС	Background of Dialysis-II	60	20	20	0	0	3	0	0	3

Unit III

Precautions of Dialysis

- Sterile techniques in dialysis.
- Emergencies in dialysis.

Unit-IV

Vascular access of Dialysis

- Pre dialysis assessment for all types of vascular access.
- Exit site care, monitoring of catheters.
- Vascular access in Neonates, infants, children's.

Unit-V

Anticoagulant:

- Antiplatelet drugs
- Thrombolytic agents



DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

				7	Teaching a	nd Evalı	ation Sch	ieme			
				Theo	ry	Pract	ical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT203(P)	СС	Background of Dialysis-II (Practical)	00	00	00	30	20	0	0	2	1

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; *Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.

List of Practical's

- 1. Performing peritoneal dialysis and personal care.
- 2. Packing includes sterilization.
- 3. Dialysis Reuse.
- Practical's will be modified as per the feasibility.

Reference book:

- 1. Textbook of renal disease by Maheshwari Kata a*, Harkesh Arora b, Rajeshwari Ramachandran c, Varun Victor d, Nihar Jena e, Abid Rizvi f, Prashanth Reddy Yella g,
- Atul Bali h, Deepak Chandramohan i and Roopa Naik j
 - 2. B.C. Bhagavan (2017) Text Book of Renal Dialysis, Clement Publications.
 - 3. Pharmacology in Rehabilitations- Ciccone

Vishwavidyalaya, Indore

Vishwavidyalaya, Indore



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

			Teaching and Evaluation Scheme								
				Theor	y	Pract	ical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT204	CC	Haemodialysis-II	60	20	20	0	0	3	0	0	3

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Course Educational Objectives (CEOs): The students will-

CEO1: Acquire the ability to identify and find appropriate solutions to medical problems.

CEO2: Interpret morphological changes of the diseases in correlation to clinical manifestations and haemodialysis techniques of the Renal diseases.

Course Outcomes (COs): Student should be able to -

CO1: develop competency in techniques of Haemodialysis.

CO2: acquire knowledge and understand the background of hamodialysis.

CO3: understand the detailed aspects of haemodialysis techniques...

CO4: acquire knowledge and understand therapeutic use of Haemodialysis.

Unit-I

The process of Haemodialysis:

- Process of Haemodialysis, primijmg of the dialyser, alarms and settings of a dialyser, completion of Haemodialysis.
- Cleaning of the tubing and dialyser and the dialysis machine,

^{*}Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

		Teaching and Evaluation Scheme									
				Theory		Pract	ical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT204	СС	Haemodialysis-II	60	20	20	0	0	4	0	0	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

Unit II

Complications of Haemodialysis:

- Monitoring, prevention for acute complications.
- Listing, prevention strategies, monitoring for chronic complications.
- Technical complications in Haemodialysis.

Unit-III

High efficiency Dialysis:

- Definition of high efficiency dialysis.
- Differences between High efficiency dialysis and Haemodialysis.
- Uses, Indication, complications, precautions in high efficiency dialysis

Unit-IV

Patient Care:

- Patient care post Heamodialysis dialysis...
- Case history preparation of patient.
- Maintenance of vascular access.

^{*}**Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

	Category	Subject Name	Teaching and Evaluation Scheme								
Subject Code			Theory			Practical					
			End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT204	CC	Haemodialysis-II	60	20	20	0	0	4	0	0	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Unit-V

Pathological Investigation.:

- Kidney Function Test.
- Glucose estimation: Blood and Urine.
- Estimation of GFR.

^{*}**Teacher Assessment** shall be based on the following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



Shri Vaishnav Institute of Paramedical Sciences

DDT (Diploma in Dialysis Technology) Syllabus DDT II SEMESTER Session 2024-2025

Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								
			Theory			Practical					
			End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
DDT204(P)	СС	Haemodialysis- II (Practical)	00	00	00	30	20	0	0	2	1

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit;

Course Educational Objectives (CEOs): The students will-

CEO1: understand, analyze and interpret Haemodialysis. Course Outcomes (COs): Student should be able to -

CO1: memorize and perform Haemodialysis.

CO2: analyze and interpret the results of haemodialysis.

List of Practical's:

- Estimation of Blood Glucose.
- Estimation of Blood Pressure.
- Haemodialysis: Patient Preparation

Reference book:

- 1 Dialysis Therapy (New Ed.) (1 copy) Nissenson Fine Jay Pee Brothers Medical Publishers (P) Ltd.
- 2 Review of Haemodialysis for Nurse and Dialysis Personnel (1 copy) C.F. Gutch –
- 3 Principle and Practices of Haemodialysis (1 copy) William C.M. Meulean –
- 4 Principles of Dialysis (1 copy) Trunne Dipittiod –
- 5 Haemodialysis (1 copy) Juanne Dippitt

^{*}Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.