

**DIPLOMA IN DIABETES CARE TECHNOLOGY : DDCT**

**CURRICULUM :**

**Preliminary Course :**

- 
- Basic Science (Anatomy, Physiology, Biochemistry, Pharmacology, Pathology, Microbiology )
  - Epidemiology
  - Screening
  - Diagnosis, Classification, Investigation
  - Special Investigations
  - Technical Know-How of Insulin Injection Procedure inclusive of Pen Device, Brief Knowledge of other Insulin Delivery System
  - Acquaintance and development of expertise for CBG monitoring by Glucometer
  - Brief Knowledge of CGMS (Continuous Glucose Monitoring System) and Insulin Pump.
  - Micro Albuminuria Testing, Urine Testing for Ketones, Urine for RE and ME
  
  - Basic Knowledge about Dialysis, Renal and Islet Cells Transplantation, Laser Therapy for diabetic retinopathy, Knowledge regarding vision testing, Endoscopy, FFA, Digital Fundal Photography
  - Computer Data Processing, Log Book Maintenance.

**Final Course 2<sup>nd</sup> Year :**

- 
- **Salient Examination of all diabetic patients (proper method & protocol)**
  
  - **Complication of Diabetes:**
    - Acute Complication
    - Chronic Complication (micro & macro vascular)
  
  - **Management Issues :**
    - Non-Pharmacological [ MNT, Exercise, Avoidance of Tobacco /Alcohol, Mental Stress].
    - Pharmacological [OHAs, Insulin ], Insulins [Types, Delivery Devices, Techniques, Preservations]
  
    - CBG-Glucometer handling in aseptic manner and interpretation of result
    - Specials –CGMS, Insulin Pump
  
  - **Special Management Issues :**
    - Diabetic Nephropathy, Diabetic Eye Diseases, Diabetic Neuropathy, Diabetic Foot, Diabetes and Pregnancy, Diabetes in Adolescence, Oral Hygiene in DM, Diabetes & Psychiatry, Diabetes & Surgery, Diabetes

in Special Situation, Fasting, Travel and Sickness, Hypoglycemia.

- **Monitoring of Targets of Diabetic Management**
- **Clinical case recording / data maintenance**

**DURATION OF PRELIMINARY COURSE - 1 YEAR**  
**[ALL WORKING DAYS : 10 AM – 3 PM]**

-----

Clinical Class and hand on training for better appraisal of patient's problem for initiation of early therapy : 10 AM-1 PM

Recess : 1 PM – 1.30 PM

Theoretical Classes : 1-30 PM – 3 PM

Teaching Hours :

Theoretical Classes : **50** Hours. Clinical Classes and patient demonstration - **150 Hours**

Page 8 of 12

**DURATION OF FINAL COURSE - 1 YEAR**  
**[ALL WORKING DAYS : 10 AM – 3 PM]**

-----

Clinical Class and hand on training for better appraisal of patient's problem for initiation of early therapy : 10 AM-1 PM

Recess : 1 PM – 1.30 PM

Theoretical Classes : 1.30 PM – 3 PM

Teaching Hours :

Theoretical Classes : **25** Hours. Clinical Classes and patient demonstration - **175 Hours**

**EXAMINATION :**

-----

**Preliminary Exam :**

Theoretical

-----  
(Total 200 Marks)

Pass Marks : 100

Practical & Oral

-----  
(Total 200 Marks)

Pass Marks : 100

[ 50 in each paper ]

Paper I : [Total Marks 100] - [Oral & practical will be tagged as far as exam is concerned]

-----

Subjects : Basic Science

Paper II : [Total Marks 100]

-----  
Subjects : Other than Basic Science  
[Clinical Diabetology]

Page 3 of 5

**Final Exam At The End of 2<sup>nd</sup> Year :**

Theoretical ----- (Total 200 Marks)	Practical & Oral ----- (Total 200 Marks)
Pass Marks : 100	Pass Marks : 100
[ 50 in each paper ]	

Paper I : [Total Marks 100] - [Oral & practical will be tagged as far as  
----- exam is concerned]

Subject : Management Issues

Paper II : [ Total Marks 100]  
-----

Subject : Special Management Issues

**CANDIDATE SHOULD PASS SEPARATELY IN THEORETICAL AS ALSO  
IN ORAL & PRACTICAL PAPERS.**

**SYLLABUS FOR DIPLOMA IN DIABETIC CARE TECHNOLOGY : DDCT**

Preliminary Course - 1 Year :

- Theoretical Classes - **50 Hours : 1-30 PM -3 PM**

**A ANATOMY - 8 CLASSES**

Covering the anatomy of the following organs :

- Pancreas - 1 Hour
- Liver - 1 Hour
- Muscles - 1 Hour
- Kidney - 1 Hour
- Heart - 1 Hour
- Eye - 1 Hour
- Nervous System - 1 Hour
- Foot - 1 Hour

**B PHYSIOLOGY - 8 CLASSES**

- Introduction - 2 Hours
- Cardio Vascular & Respiratory System - 1 Hour
- Gastro Intestinal & Hepatobilliary System - 1 Hour
- Physiology of Pancreas - 1½ Hour
- Excretory System & Skin - 1 Hour
- Reproductive, Endocrine and Metabolic System - 1 Hour
- Musculo Skeletal & Neurological System - 1 Hour
- Eye, ENT & Dental System - 2 Hours

**C BIOCHEMISTRY - 4 CLASSES**

- Introduction - 1 Hour
- Metabolism of Carbohydrate, Protein & Fat - 2 Hours
- Common Biochemical Examination - 2 Hours
- Collection and sending of materials - 1 Hour

Page 4 of 5

**D PHARMACOLOGY - 4 CLASSES**

- Introduction - I V Fluids, Bloods, and its products, Surgical nutrition - 1½ Hour
- Oral Hypoglycemic agents - 2 Hours
- Insulin – conventional and analogues - 2 Hours
- Antibiotics, Antihypertensives, Analgesics, Antipyretics, Disinfectants, Drugs For Neuropathy - 2 Hours

**E PATHOLOGY - 8 CLASSES**

- Introduction - 1 Hour
- General Pathology – Infective & Neoplastic Disorders - 1 Hour
- General Pathology –Cystic, Degenerative, Metabolic and Endocrine Disorders - 1 Hour
- Collection and sending of materials for Examination for Cytology and Histopathology- 1 Hour
- Systemic Pathology – Cardio Vascular and Respiratory system - 2 Hours
- G.I. and Hepatobilliary - 1 Hour
- Excretory and Reproductive System - 2 Hours
- Musculo Skeletal, Eye, ENT, Dental Hygiene - 1 Hour

**F MICROBIOLOGY - 4 CLASSES**

- Introduction to Common Pathogen - 1 Hour
- Bacterial & Viral Disorders –Transmission & Prevention - 1 Hour
- Principal of Diagnosis and Sending of Materials - 1 Hour
- Sterilization and other preventive aspects - 1 Hour

**G COMPUTER AND DATA PROCESSING - 2 CLASSES - 2 X 2 Hours**

**H PRACTICAL CLASSES AND DEMONSTRATIONS - 150 Hours**

- 1 Epidemiology, screening
- 2 Diagnosis, classification and investigations
- 3 Specials Investigations
- 4 Technical know-how of Insulin Injection and different delivery system
- 5 Know-how of CBG monitoring by Glucometers
- 6 Brief Knowledge of Insulin Pump & CGMS (Continuous Glucose Monitoring System )
- 7 Microalbuminuria Testing, Urine Testing For Ketones, Urine for RE & ME

- 8 Basic knowledge about Dialysis, Renal Transplant, Laser Therapy for Diabetic Retinopathy, Vision Testing, Fundoscopy, FFA, Digital Fundal Photography

**FINAL COURSE [1 YEAR ]**

**Recess : 1 PM – 1.30 PM**

**1 Theoretical Classes - ( 25 Hours) : 1.30 PM - 3 PM**

- Complication of Diabetes Acute and Chronic - 2 Classes - 2 X 2 Hours
- Management Issues :
  - Non-Pharmacological - 1 class - 1 Hour
  - Pharmacological(OHAS,Insulin,Newer Molecules) -
    - 3 classes - 3 x 2 Hours
- Special Management Issues :
  - Diabetic Nephropathy - 1 Class 1 Hour
  - Diabetic Eye Diseases - 1 Class 1 Hour
  - Diabetic Neuropathy - 1 Class 1 Hour
  - Diabetic Foot Diseases - 1 Class 1 Hour
  - Diabetes and Pregnancy - 1 Class 2 Hours
  - Diabetes in Adolescence - 1 Class 1 Hour
  - Diabetes and Oral Hygiene - 1 Class 1 Hour
  - Diabetes and Psychiatry - 1 Class 1 Hour
  - Diabetes and Surgery - 1 Class 2 Hours
  - Diabetes in Special Situations – Fasting,  
Travel and Sickness – 1 Class 1 Hour
  - Hypoglycemia - 1 Class - 1 Hour
  - Monitoring of Targets of Management – 1 Class 1 Hour

**2 Practical Class and Demonstrations (175 Hours) : 10 AM- 1 PM**

**3 Clinical Examination of all diabetic patients ( with or without Overt complications and following proper method and protocol)**

- Clinical case recording (individual candidate will be allotted Fixed number of cases from day 1 of attending the cases and to follow the cases till discharge in case of indoor patients or stabilization in case of OPD patients.)
- Log Book and Data Maintenance.

-----

## **STATE MEDICAL FACULTY OF WEST BENGAL**

### **SYLLABUS OF DDCT COURSE**

#### **SYLLABUS - Preliminary Course**

- Basic Science (Anatomy, Physiology, Biochemistry, Pharmacology, Pathology, Microbiology )
- Epidemiology
- Screening
- Diagnosis, Classification, Investigation
- Special Investigations
- Technical Know-How of Insulin Injection Procedure inclusive of Pen Device, Brief Knowledge of other Insulin Delivery System
- Acquaintance and development of expertise for CBG monitoring by Glucometer
- Brief Knowledge of CGMS (Continuous Glucose Monitoring System) and Insulin Pump.
- Micro Albuminuria Testing, Urine Testing for Ketones, Urine for RE and ME
  
- Basic Knowledge about Dialysis, Renal and Islet Cells Transplantation, Laser Therapy for diabetic retinopathy, Knowledge regarding vision testing, Endoscopy, FFA, Digital Fundal Photography
- Computer Data Processing, Log Book Maintenance.

#### **SYLLABUS - Final Course**

- **Salient Examination of all diabetic patients (proper method & protocol)**
- **Complication of Diabetes:**
  - Acute Complication
  - Chronic Complication (micro & macro vascular)
- **Management Issues :**
  - Non-Pharmacological [MNT, Exercise, Avoidance of Tobacco /Alcohol, Mental Stress].
  - Pharmacological [OHAs, Insulin ], Insulins [Types, Delivery Devices, Techniques, Preservations]
  
  - CBG-Glucometer handling in aseptic manner and interpretation of result
  - Specials –CGMS, Insulin Pump
- **Special Management Issues :**
  - Diabetic Nephropathy, Diabetic Eye Diseases, Diabetic Neuropathy, Diabetic Foot, Diabetes and Pregnancy, Diabetes in Adolescence, Oral Hygiene in DM, Diabetes & Psychiatry, Diabetes & Surgery, Diabetes in Special Situation, Fasting, Travel and Sickness, Hypoglycemia.

\*\*\*\*\*