

**Faculty of Vocational Studies**  
**Syllabus for**  
**Certificate Course: Diabetes Education**  
**Session: 2023-24**



**The Heritage Institution**  
**KANYA MAHA VIDYALAYA JALANDHAR**  
**(Autonomous)**

**Scheme of Studies and Examination**  
**Certificate Course:- Diabetes Education**  
**Session: (2023-2024)**

Semester I							
Course Code	Course Name	Credits	Total Course Hours	Marks		Examination time in (Hours)	
				Total	Ext.		
					L		P
CDEM-1281	Diabetes Education	2-0-2	640	100	80	20	3
Total				100			

## **PROGRAMME SPECIFIC OUTCOMES OF CERTIFICATE COURSE IN DIABETES EDUCATION**

PSO (1) - To gain knowledge about the contribution, attributes role and responsibilities of a Diabetes Educator

PSO (2) - Organize all relevant information in standardized formats related to patient's profile as per standard procedure for various purposes

PSO (3) - Carry out detailed paperwork for documenting clinical and Diabetes Self Management Education (DSME) related records as per norms and legislation

PSO (4) - Use Hospital Information System (HIS) to maintain longevity of the records

PSO (5) - To maintain and update follow-up register as per organizational policies

PSO (6) - Schedule the next follow up appointment in consultation with physician and individual

PSO (7) – Organize the previous records of the patient from database before scheduled appointment.

## **COURSE OUTCOMES:**

**Upon completion of this course students will be able:**

- CO (1)** Organizational policy regarding information and record management
- CO (2)** Organizational practices regarding storage of information
- CO(3)** Organizational policies and protocols applicable to own field of work
- CO(4)** Safety requirements set by accreditation agencies or statutory bodies
- CO(4)** Relevant stakeholders/ physicians who need to be aligned for patient education and treatment
- CO(5)** Basic structure and function of the healthcare system in the country
- CO(6)** Basic structure and function of healthcare facilities available at various levels, hospice care, clinics
- CO(7)** Type I, type II and gestational diabetes
- CO(8)** Significance of patients right for information and the process involved

**Certificate Course**

**Diabetes Education**

**Session: 2023-2024**

**COURSE CODE: CDEM-1281**

**Time :3 Hours**

**Max. Marks:100**

**Theory:80**

**Practical:20**

**Instructions for the Paper Setter Diabetes Education**

Theory: An objective type question paper will be set for assessment of the candidate with equal weightage from all the units of the syllabus.

Practical: The will be set on spot by the examiner.

**Unit -I**

**Structure and function of human Body.**

- The Digestive system:
- Structure and function of the salivary glands, the stomach, the pancreas, the liver, the small intestine and large intestine. Mechanism of digestion and absorption of carbohydrates, proteins and fats.
- Introduction to Diabetes: Types of Diabetes: Type I, Type II ,Pre-diabetes and gestational diabetes , Impaired Glucose Tolerance (IGT)
- Regulation of blood glucose in human body
- Role of pancreas towards blood glucose levels

**Unit -II**

- Roles and responsibilities of diabetic educator
- Professional behavior of diabetes educator, patient dealing, effective communication
- Patient Record and follow up activities.
- Healthcare System
- Medical Terminologies
- First aid, emergency medical responses,
- Maintain a safe, healthy and secure environment.
- Bio Medical Waste Management & treatment Categories of biomedical waste:-  
Bio-medical waste-color coding, types of waste etc. Standards for bio-medical waste disposal  
Means of bio-medical waste treatment.
- Infection Control Policies and Procedures including bio-medical waste management disposal. Patient's rights and Responsibilities

**Unit -III**

- Risk factors for diabetes: Primary and Secondary factors

- Pathology of diabetes: Causes and Symptoms of Diabetes Complication of Diabetes: Nephropathy, Neuropathy, Retinopathy, Diabetic Coma, Insulin Shock Hypertension, Coronary Artery Disease etc.
- Glucometer: History, Equipment attachments, Calibration, Invasive and non-invasive Technique, Characteristics, Method of Usage, Safety measures while using glucometer. CGMS –Continuous Glucose monitor and Insulin Pump.
- Infection control and prevention at the insulin injection site, Diabetic Foot Care,
- Investigation used for diagnosis of diabetes:
- GTT, FBG, PPBG, RBG, HbA1c, Urine Micral, Ketones test, Lipid Profile,
- Insulin and its types, syringe and pen injection types/ parts, usage techniques and safety measures while using insulin injections.
- Glycemic Index & Glycemic Load.
- Hypoglycemia: Definition, complications, treatment and its management
- Special care for diabetic patients: Hand care, Foot care

#### **Unit -IV**

- Initial assessment of diabetic patients: Biochemical and Anthropometric assessment, Disease history and current status evaluation
- Eyes care and Weight management
- Treatment plan for type 1 diabetes
- Treatment plan for type 2 diabetes, gestational diabetes.
- Recent Advancement /Scope in Diabetes Management
- Diabetes awareness campaigning: weight management, diet management, regular Checkups, life style modification
- Reassessment of diabetic patients and follow ups: Diet counselling, Diet and Drug Insulin management

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**Practical**

- 1) Diet Plan for Diabetic Type 1, Type 2 and Gestational Diabetes with Calorie calculation and exchange list.
- 2) Prepare 5 Recipes for each with their calorie count
  - Breakfast
  - Lunch & Dinner
  - Dessert
  - Snacks
- 3) Calorie Calculation according to Insulin Dosage.
- 4) Diet Counseling, Anthropometric assessment, Disease history and diet management.
- 5) Glucometer Calibration and usage and safety measures.