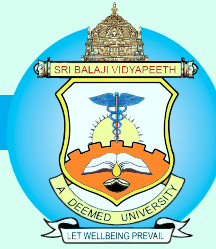


SRI BALAJI

ACCREDITED BY NAAC
WITH 'A' GRADE



VIDYAPEETH

DEEMED TO BE UNIVERSITY
DECLARED U/S 3 OF THE UGC ACT, 1956

NIRF - INDIA RANKINGS 2019 : 72 among Universities in India

FELLOWSHIP IN DIABETES EDUCATION

Department of General Medicine

SYLLABUS & REGULATIONS



2019-2020 ONWARDS

(As Approved in the Academic Council at the Meeting held on 22.05.2019)



SRI BALAJI VIDYAPEETH

(Deemed to be University)

U/S 3 of UGC Act 1956

Puducherry-607402

**Mahatma Gandhi Medical College and Research Institute,
Pondicherry**



Department of General Medicine

Course Curriculum for Fellowship in Diabetes Education

2019-2020

Sri Balaji Vidyapeeth (Deemed University)

Fellowship in Diabetes Education

<p>1. Name of the Department, Institute responsible for running the Course Department of General Medicine, Mahatma Gandhi Medical College & Research Institute.</p>	<p>Course Coordinator Name: Dr.Lokesh. S Phone number: 9791360480 e-mail: lokeshs@mgmcri.ac.in</p>
<p>2. Course Title / Nomenclature Fellowship in Diabetes Education</p>	<p>Is it stand alone course: No Department of General Medicine, CYTER, CMTER, Dietetics and Information Technology Course Fee Proposed Rs.* *Will be fixed by University</p>
<p>3. Target participants/students who are likely to join this course</p>	<p>Eligibility Criteria B.Sc Nursing, B.Sc Nutrition, B.Sc Physician Assistant</p>
<p>4. Course Duration 1 year full time course</p>	<p>How many courses do you intend to have in one academic year? 1 course in a year</p>
<p>5.Mention where further details are available about this course Yet to be prepared</p>	

6. Course Need

Towards excellence in training Health care professionals for a prospective career in the field of Diabetes Mellitus and its complications

7. Course Goal(s)

1. To conduct structured training programs aimed at creating health care professionals trained in specific aspects of the care of Diabetes and its complications
2. To incorporate current technological advances in the field of Dietary and lifestyle modifications, implication of Yoga and Music therapy in diabetes management.
3. To raise awareness of technology based patient education and follow-up to improve patient adherence to treatment.
4. To raise the awareness of electronic data base management in current day practice.

8. Explain the scheduling structure: Consider the following three options and give your plan

Full time course for one year which will be split in to 2 semesters (6 months each)

Posting Period:

General Medicine-10 months

Dietitics-1 month

Yoga-15 days

Psychiatry-15 days

9. List the teaching learning activities and methods used for instruction, monitoring and mentoring

- Lectures
- Seminars / symposium
- Group tasks
- Presentations- problem solving exercises

10. Course scheduling and Credits

- Course to begin every year in the month of July 2019
- Credits –Refer page 06

11. Course Evaluation

- Formative (Once in 3 months)
 - End semester Theory test
 - Practical examination in the form of OSCE
- Summative
 - Theory test
 - Practical examination in the form of OSCE

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12. Course Requirements

- The candidate should have completed 21 years at the time of admission to course.
- The candidate shall possess a Bachelor degree in Nursing / Nutrition / Physician Assistant.

13. Infrastructure and Physical Facilities available for the course including online resources

The course material must be made available at SBV website

The course can be conducted at MEU / Lecture hall of College Block based on number of participants registering for the course

14. Faculty and Staff in place for the Course

Faculty of General Medicine from MGMCRI will serve as the internal faculty members.

The IT department will provide support in training on Electronic database management

The faculty of CYTER, CMTER and Department of Nutrition and Dietetics will supplement the training program.

15. Any other information about the unique feature of this course. You may like to highlight the employment potential of the course and tangible benefits

On successful completion of the course the candidates can find job opportunities in Medical Colleges / Corporate hospitals as Diabetes Educator. They can emerge in the field of research in diabetes management and education.

Please use the following checklist to review your course information.

		Item No.
1.	Name of the Department, Institute responsible for running the Course	01
2.	Course coordinator's information Name, email, phone number given	02
3.	Target participants	03
4.	Course duration	04
5.	Eligibility Criteria	03
6	Course Goals & Outcomes	07
7	Structure of scheduling	08
8	Teaching Learning Activities	09
9.	Course Schedule with credits	10
10.	Course Evaluation and weightage	11
11.	Other Course requirements	13
12.	Infrastructure Physical Facilities	13
13.	Faculty and Staff	14

Name and Signature of Course Coordinator

Endorsed by the Head of the Dept/Institute

Course Content for Fellowship in Diabetes Education (FDE)

Faculty Code	Category	Course content	Hours				Credits			
			Theory	Practical	Clinical training	Total hours	Theory	Practical	Clinical training	Total credits
FDE	FDE-1	Introduction to Diabetes and Diabetes Education	64	32			4	1		5
	FDE-2	Overview of Management of Diabetes	80	64			5	2		7
	FDE-3	Roles and Responsibilities of Educator in various clinical settings	64	32			4	1		5
	FDE-4	Skills in Diabetes Education	64	32			4	1		5
		Clinical rotation= 5 hours/day for 6 days a week x 48 weeks			1440				45	45
	Total		272	160	1440	1872	17	5	45	67

FELLOWSHIP IN DIABETES EDUCATION

SCHEME OF UNIVERSITY EXAMINATION

Paper	Subject	Theory		Practical		Grand Total (200)
		UE	IA	UE	IA	
(One theory Paper)						
Section A	Basics of Diabetes Education and Management of Diabetes	40	20			100
Section B	Roles and responsibilities of Diabetes Educator in various clinical settings	40				
	Skills in Diabetes Education			80	20	100

SBV-SYLLABUS FOR FELLOWSHIP IN DIABETES EDUCATION

FDE 1: Introduction to Diabetes and Diabetes Education.

- 1.1.1 Introduction to health care delivery system:** Identify the different types of health care delivery models. Describe the role and function of the hospital in patient care services.
- 1.1.2 Roles and Responsibilities of Diabetes Educator:** Describe the functions, various responsibilities of Diabetes Educator. Define the roles and responsibilities of other health care team members. Ethical behaviour of Diabetes Educator. Development of a positive personal image as a health care member.
- 1.1.3 Structure and Function of Human Body:** Organization of body cells, tissues, systems, membranes and glands. Define musculoskeletal system, Digestive system, Respiratory system, cardiovascular system, excretory system, Nervous system, Endocrine system, sense organs and Reproductive system.
- 1.1.4 Regulation of Blood Glucose in human body:** Mechanism of blood glucose regulation, mechanism of absorption of glucose and storage of glucose in human body.
- 1.1.5 Role of Pancreas in Blood Glucose regulation:** Functions of Pancreas related to regulation of blood glucose and Physiology of pancreas.
- 1.1.6 Introduction to Diabetes Mellitus:** Define Diabetes Mellitus, Epidemiology, risk factors for diabetes, diagnostic criteria, screening for Diabetes Mellitus and Continuum of care (Primary, Secondary and Tertiary prevention)
- 1.1.7 First Aid:** Components of First Aid kit and involvement of Diabetic Educator in Medical Emergencies.
- 1.1.8 Emergency Medical Response:** Cardio Pulmonary Resuscitation and Emergency Drugs used in Resuscitation.
- 1.1.9 Biomedical Waste Management:** Segregation of Biomedical Waste at source. Colour coding and types of containers for disposal of biomedical waste. Labelling and transport of Bio Medical waste containers / bags.

FDE 2: Overview of Management of Diabetes Mellitus.

- 2.1.1 Diabetes overview:** Definition of Type 1 Diabetes, Type 2 Diabetes, Secondary Diabetes and Gestational Diabetes Mellitus.
- 2.1.2 Risk factors for Diabetes:** Identification of risk factors associated with Type 1 Diabetes, Type 2 Diabetes and GDM. Define the role of genetics, Obesity, Sedentary lifestyle and infections in Diabetes.
- 2.1.3 Pathology of Diabetes:** Pathophysiology of Type 1, Type 2, MODY, Secondary Diabetes and GDM.
- 2.1.4 Complications of Diabetes:**
 - 2.1.4.1** Diabetes complications on Cardiovascular system like Coronary Artery Disease, Heart failure, hypertensive heart disease and Dilated cardiomyopathy
 - 2.1.4.2** Diabetes complications on Eyes like Retinopathy, Retinal degeneration, Macular degeneration and retinal detachment
 - 2.1.4.3** Diabetes complications on excretory systems like cystitis, pyelonephritis and lower UTI
 - 2.1.4.4** Diabetes complications on Nervous system like Cerebrovascular disease, peripheral neuropathy, cranial neuropathies and degenerative diseases of brain
 - 2.1.4.5** Diabetes complications on musculoskeletal system like muscle cramps, muscle infarction, Complex Regional Pain Syndrome (CRPS) etc
 - 2.1.4.6** Diabetes complications on GIT, like Gastroparesis and NASH.

- 2.1.4.7 Diabetes complications on Immune system like Immuno deficiency, chronic fungal infections, risk of viral infections and recurrent bacterial infections.
- 2.1.4.8 Diabetes complications on renal system like Micro albuminuria, Nephrotic syndrome, Diabetic Kidney disease, Acute Kidney Injury and Renal Replacement Therapy.
- 2.1.4.9 Diabetes complications on oro-dental system like xerostomia, gingivitis and periodontitis.
- 2.1.5 **Investigations used for Diagnosis of Diabetes:** Blood glucose analysis (RBS, FBS, PPBS, CBG Monitoring), Continuous Blood Glucose Monitoring, HbA1C and Fructosamine. Urine examination for Sugars, Proteinuria, Ketones etc.
- 2.1.6 **Use of Glucometer:** understand the use and importance of Glucometer in Diabetes management. Learn the technique of use of glucometer and analyse the blood glucose levels.
- 2.1.7 **Infection control and prevention:** identification of deviation from normal health, identification of the hospital borne infections, practices to curb infection and explain different types of spillages and their management. Realize the importance of hand sanitization, hand wash, safe handling of trolleys, wheel chairs, PPE, first aid kit, disinfectants etc.
- 2.1.8 **Professional Behaviour:** General and specific etiquettes to be observed on duty. Need for compliance of organizational hierarchy and reporting. Describing the importance of conservation of resources in medical facility. Maintaining confidentiality and privacy of patient information.
- 2.1.9 **Treatment plan for Type 1 Diabetes:** Understanding of basic and advanced diabetes self-management skills for treating T1DM. Importance of Exercise and physical activity in management of T1DM with emphasise on Yoga.
- 2.1.10 **Treatment plan for Type 2 Diabetes:** Basic and advanced diabetes self-management skills for treating T2DM, importance of exercise and physical activity in management of T2DM. To identify the major role of therapeutic lifestyle modification, obesity and insulin resistance in T2DM. Prevalence and importance of Gestational diabetes mellitus.
- 2.1.11 **Medication in Diabetes Management:** Basic understanding on OHA, its potential benefits and drawbacks. Identify OHAs used in clinical practice. Basic understanding of various types of Insulin available, formulations, check the name and dose of insulin recommended by the physician. Learn the mechanism for storage of insulin along with checking expiry date. Method of using Pen devices and drawing correct dose of insulin. Various sites of insulin administration to prevent lipodystrophy.
- 2.1.12 **Hypoglycaemia and its management:** signs and symptoms of hypoglycaemia, hypoglycaemia unawareness, treatment of hypoglycaemia and methods to prevent hypoglycaemia.

FDE 3: Roles and Responsibilities of Educator in various clinical settings

3.1.1 Diabetes Self-Management Education-DSME: Concept of Nutrition, Nutrients and Calories, Balanced diet along with co-ordination of meals with the medications. Describe fruits and vegetables with low Glycaemic index. Highlight the importance of exercise and timely intake of medicines and monitoring the blood glucose levels.

3.1.2 Special Care for Diabetic patients: General health of pre-diabetic and diabetic individuals. Attention towards skin, oral cavity, ocular examination and the examination of feet.

3.1.3 Communication Skills: Art of Communication with patients. Explaining the means of handling stressful situations or risky situations while talking with patient and relatives. Understand the need of skills in reading and writing in at least one local and official language in the local community.

3.1.4 Initial assessment of Diabetic patients: Identification of important data and report of the patient and maintenance of the same. Analyze and interpret the data, perform individualized risk assessment, demonstrate general physical examination of the body and Diabetic specific examination.

3.1.5 Reassessment of Diabetic patients and follow up: Collection of information regarding effect of treatment in a Diabetic patient. Collect information regarding new complaints and to check its relevance with the diabetes.

3.1.6 Consent, Observing, Recording and Documentation: Importance of Observing and reporting the condition of the patient as well as taking consent while assisting the patient. Importance of verbal information to the doctor in charge, explain the importance and guidelines for documentation of different observations and informed consent of the patient. Feedback mechanism from appropriate people like concerned medical team, care givers and relatives. Identify various types of records to be maintained by Diabetic Educator. Description of a follow-up plan.

3.1.7 Soft Skills and Communication: Understanding need for customer service and service excellence in medical service. Work ethics in hospital set up. Objecting handling and communication via telephone or email etiquettes.

FED 4: Skills in Diabetes Education

4.1.1 Education and behavioural interventions: Principles and practice of patient education, Measures and document patient outcomes, problems and psychological evaluation in the diabetic patient, strategies for behavioural changes and management of stress.

4.1.2 Practical training: Anthropometry evaluation, Diet analysis, Diet review, Diet prescription, System entries, Calorific Values and Demonstration of equipment required in Diabetic clinic. Patient education, Education Questionnaire and Recipe demo.

4.1.3 Medical History and Medicine review, Foot examination, oro-dental care, care of acutely ill diabetic patient and care of amputated / infected limb. Care of diabetic patient undergoing Out-patient procedures like blood glucose estimation, Monofilament test, CBGM etc.

4.1.4 Communication skills: Role of communication, Defining communication, Classification of Communication, Purpose of Communication, Major difficulties in communication, Barriers of Communication, Characteristics of successful communication, Communication at work place, Human needs and communication “Mind Mapping”, Information and listening skills.

4.1.5 Organizing a Diabetic clinic: Being part of Multidisciplinary team, documenting and monitoring quality of care, assessing and reporting outcomes.

4.1.6 Research project on Diabetes

Text books

1. Marion. J. Franz, MS RD LD, CDE (2003), Diabetes Education and Programme Management, A Core curriculum for Diabetes Education (Fifth Edition)-American Association of Diabetes Educators, Chicago, Illinois.
2. Marion. J. Franz, MS RD LD, CDE (2003), Diabetes in the Life Cycle & Research, A Core curriculum for Diabetes Education (Fifth Edition)-American Association of Diabetes Educators, Chicago, Illinois.
3. Marion. J. Franz, MS RD LD, CDE (2003), Diabetes and Complications, A Core curriculum for Diabetes Education (Fifth Edition)-American Association of Diabetes Educators, Chicago, Illinois.
4. Marion. J. Franz, MS RD LD, CDE (2003), Diabetes Management Therapies, A Core curriculum for Diabetes Education (Fifth Edition)-American Association of Diabetes Educators, Chicago, Illinois.

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**FELLOWSHIP IN DIABETES EDUCATION
SBV UNIVERSITY
MODEL QUESTION PAPER FOR THEORY EXAMINATION**

Duration: 3 hours

Max Marks: 40

SECTION A

A. Long Assay Question (1x10=10 marks)

1. Describe the roles and responsibilities of Diabetes Educator in Diabetes management. Explain the methods of maintaining confidentiality of a Diabetic patient

B. Short Assay Question (4x5=20)

1. Describe the role of pancreas in Diabetes
2. Describe the changing trends in Diabetes Mellitus in India
3. Management of Biomedical waste
4. Discuss the care of Acutely ill T1DM patient

C. Very Short Assay Question (5x2=10)

1. Give the normal Fasting and Post prandial blood glucose levels
2. Mention the components of first aid kit
3. Mention the Cardiovascular complications of diabetes
4. Mention different types of health care delivery systems.
5. Define Gestational Diabetes Mellitus

**FELLOWSHIP IN DIABETES EDUCATION
SBV UNIVERSITY
MODEL QUESTION PAPER FOR THEORY EXAMINATION**

Duration: 3 hours

Max Marks: 40

SECTION B

A. Long Assay Question (1x10=10 marks)

1. Discuss the mechanism of functioning of Glucometer, importance of its use and precautions while estimating capillary blood glucose levels

B. Short Assay Question (4x5=20)

1. Prevention of Hospital borne infections
2. Role of telephone or email in patient adherence to diabetic management
3. Types and Mechanism of action of Insulin
4. Prescribe a diet for Lean Type 2 DM

C. Very Short Assay Questions (5x2=10)

1. Types of communication
2. Importance of yoga in Diabetes
3. Importance of record keeping in diabetic clinic
4. Various anthropometric measures
5. Vaccination in health care provider