

**THE TAMIL NADU Dr. M.G.R. MEDICAL
UNIVERSITY, CHENNAI -600 032**

REGULATION FOR THE POST GRADUATE DIPLOMA IN DIABETES EDUCATION

(Under Allied Health Science)

In exercise of the powers conferred by Section 44 of the Tamil Nadu Dr.M.G.R.Medical University, Chennai Act 1987 (Tamil Nadu Act 37 of 1987) the Standing Academic Board of the Tamil Nadu Dr.M.G.R.Medical University, Chennai hereby makes the following regulations:-

1. SHORT TITLE AND COMMENCEMENT:-

These regulations shall be called “**THE REGULATION FOR POST GRADUATE DIPLOMA IN DIABETES EDUCATION**” of the Tamil Nadu Dr. MGR Medical University, Chennai.

They shall come into force from the academic year 2011-2012

The regulations framed are subject to modification from time to time by the Standing Academic Board.

2. OBJECTIVES:-

1. To provide the participant with the knowledge and skills of the education process to enable them to be effective diabetic educators.
2. To train and shape the candidate with variety of teaching modules.
3. To inculcate sense of compassion and listening to patient needs.
4. To develop excellent communication skills.

3. ELIGIBILITY FOR ADMISSION:-

A candidate shall pass in

1. B.Sc., - Nutrition, Food Service Management and Dietetics/Clinical Nutrition &Dietetics/Food & Nutrition/Nutrition, Dietetics & Food Service Management/Food Science and Nutrition (OR)
2. Nursing – B.Sc.,(Nursing)/Diploma in Nursing (OR)
3. B.Sc., Microbiology/Bio-Chemistry/Biology/Botany/Zoology.

A pass in English with minimum of 40% is mandatory.

For the SC/ST candidates minimum of 35% for joining the course.

A candidate should have completed the age of 21 years at the time of admission.

4. ELIGIBILITY CERTIFICATE:-

The candidate who has passed any qualifying examination as stated in Regulation No.3 above other than the Tamil Nadu Dr. MGR Medical University shall obtain an "Eligibility Certificate" from this University, by remitting the prescribed fee along with the application form and required documents before seeking admission to anyone of the affiliated medical institutions. The application form is available in the University website (www.tnmgrmu.ac.in).

5. REGISTRATION:-

A Candidate admitted to the course shall register his / her name with this University by submitting the prescribed application form for registration duly filled, along with the prescribed fee and a declaration in the format to the Controller of Examination of this University through the affiliated institution within 30 days from the cut-off date prescribed for the course for admission. The applications should have date of admission of the course.

6. DURATION OF THE COURSE:-

The duration of the course is one year full time course. The candidate should complete this course in 2 years (double the duration) from the date of joining the course.

7. COMMENCEMENT OF THE COURSE:-

The course shall commence from 1st September of the academic year.
(Resolved in 48th SAB)

8. MEDIUM OF INSTRUCTION:-

English shall be the medium of instruction for all the subjects of study and for examinations of the Post Graduate Diploma in Diabetes Education course under Allied Health Sciences.

9. CURRICULUM:-

The Curriculum and the syllabus for the course shall be as prescribed in these regulations and are subject to modifications by the Standing Academic Board from time to time.

10. SELECTION PROCESS:

- As stipulated by the University –
- An expert committee constituted by the institution will assess the aptitude and knowledge of the candidates. Committee's decision will be based on the performance of the candidates in the entrance examination and personal interview along with other credentials.
 - The committee's decision on selection of candidates will be final. No canvassing in this regard will be entertained.
 - Selected candidates will be individually notified. Candidate who fails to appear on the prescribed date for examination and interview will not be considered for selection.

11. WORKING DAYS IN THE ACADEMIC YEAR:-

Each academic year shall consist of not less than 270 working days

| | | |
|--------------------------------|---|----------|
| Total No. of days in a year | - | 365 |
| a) No. of weekly off (Sundays) | - | 52 |
| b) No. of Government Holidays | - | 22 |
| c) No. of Holidays | - | 21 |
| | | 95 |
| Total No. of Working days | | |
| Including examination period | | 270 days |

12. CUT-OFF DATES FOR ADMISSION TO EXAMINATIONS:

- 30th September of the academic year concerned
- The candidates admitted 30th September of the academic year shall be registered to take up the 1st year examination during October of the next year.
- All kinds of admission shall be completed on or before 30th September of the academic year. There shall not be any admission after 30th September even if seats are vacant..

(Resolved in 48th SAB)

13. COMMENCEMENT OF THE EXAMINATION:-

- April 15th / October 15th
- If the date of commencement of examination falls on Saturdays / Sundays or declared Public Holidays, the examination shall begin on the next working day.

(Resolved in 43rd SAB held on 19.12.2011)

14. ATTENDANCE REQUIRED FOR ADMISSION TO EXAMINATION:-

- No candidate shall be permitted to appear in any one of the examinations unless he/she has attended the course in the subject for the prescribed period in an affiliated institution recognized by this University and produce the necessary certificate of study, attendance and satisfactory conduct from the Head of the institution.
- A candidate is required to put in a minimum of 90% of attendance in both theory and practical separately in each subject before admission to the examinations.

15. INTERNAL ASSESSMENT MARKS:-

The internal Assessment should consist of the following points for evaluation:-

1. Theory – 20 Marks
2. Practical/Clinical – 20 Marks
3. Record - 10 Marks

(a) A minimum of two written examinations shall be conducted in each subject during a year and the average marks of these shall be taken into consideration for the award of Internal Assessment marks.

(b) A minimum of one practical examination shall be conducted in each subject (wherever practical has been included in the curriculum) and the grades of ongoing clinical evaluation to be considered for the award of Internal Assessment Marks.

16. CLASSIFICATION OF A SUCCESSFUL CANDIDATE:-

Qualifying marks for pass shall be 50% in theory/practical and internals.

- A candidates getting more than 75% in first attempt will be given 'distinction' in the subject.
- Candidates getting 60% aggregate marks in first appearance will be awarded 'first' class
- Candidates getting below 60% will be declared passed in the "second" class.
- If the candidates takes more than one attempt to clear all papers. He/she shall be awarded 'pass' class.
- Revaluation of answer paper is not permitted. Only re-totaling of theory answer paper is allowed, in the failed subjects.

SUBJECTS

Paper I: Pathophysiology & Long term complications

Paper II: Management of Diabetes and Diabetes Education.

17. SCHEME OF EXAMINATION:POST GRADUATE DIPLOMA IN DIABETES

EDUCATION

| S.No. | Subjects | Internal Assessment (IA) | | Theory | | Practical | | Viva Voice | |
|-------|---|--------------------------|-----|--------|-----|-----------|-----|------------|-----|
| | | Max | Min | Max | Min | Max | Min | Max | Min |
| 1. | Pathophysiology & Long term complications | 50 | 25 | 100 | 50 | - | - | - | - |
| 2. | Management of Diabetes and Diabetes Education | 50 | 25 | 100 | 50 | 50 | 25 | - | - |

PRACTICAL SCHEDULE

1. Diet Analysis - 10 marks
2. Diet Counselling - 20 marks
3. Demonstration of glucometers and insulin pens – 10 marks
4. Identifying the calorific value of foods – 10 marks

QUESTION PAPER PATTERN:

Essay 2x20 = 40 marks
Short Notes 10x6 = 60 marks
Total 100 marks

SYLLABUS FOR PG DIPLOMA IN DIABETES EDUCATION

| No. | Title of the Subject | No.of Hours |
|-----|---|-------------|
| 1 | <p>Introduction:</p> <p>Epidemiology: Definition, scope and uses of epidemiology, measuring disease frequency (prevalence, incidence rate),Epidemiology and prevention of chronic diseases, different levels of prevention (primordial, primary, secondary and tertiary) Types of studies and study design (qualitative and quantitative designs), Biostatistics – basic concepts (Mean, Median and Mode, Normal distribution)</p> <p>Public Health Problems: Identifying individuals at high risk for type 2 Diabetes, Evidence for type 2 Diabetes prevention. The Community and health care facility.</p> <p>Quality of care: Health outcome include treatment of glycemic control, lipid levels, blood pressure, frequency of self-monitoring of blood glucose. Patients centered outcomes includes patient satisfaction, well being and quality of life.</p> <p>Role of educator: Multidisciplinary team approach to Diabetes Education describing the diabetes disease process and treatment option. Incorporating appropriate nutrition management. Goal setting to promote health, problem solving and daily living.</p> | 5 |
| | <p>Pathophysiology of Diabetes: Types and causes, Disease process, Diagnostic criteria, Screening for Diabetes – why, when and how? (Urine sugar and blood sugar), Continuum of care (primary, secondary, tertiary, prevention)</p> | 5 |
| | <p>Long term complications:</p> <p>Macro vascular complication: It includes coronary artery disease, cerebral vascular and peripheral vascular disease – type, risk factors and intervention strategies.</p> <p>Micro vascular complication: Diabetes Eye disease, Neuropathy, Nephropathy – Disease stage, diagnosis and treatment.</p> <p>Other complications (foot, skin, gastrointestinal disorders, endocrine disease, psychological factors, etc.)</p> | 80 |

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| | Management of Diabetes – overview: Aims of treatment, the importance of overall metabolic control, internationally recognized standards of care. The evidence for good control, physical assessment and laboratory assessment | 150 |
| | Practical management of Diabetes: Dietary management, insulin and oral therapy, Avoiding and managing hypo and hyperglycemia, Self _ management strategies during special situations (sick days, travel, hypoglycemic events, etc), Self monitoring (glycemic control & complications related to diabetes), Lifestyle issues, Newer trends in management. | 200 |
| | Special considerations: Diabetes in children and adolescents, Diabetes in pregnancy, Diabetes in the elderly, Diabetes & infection, Diabetes in people living in poverty, surgical considerations in Diabetes. | 150 |
| | Educational and behavioral interventions: Principles and practice of patient education, Measure and document patient outcomes, Problems and psychological evaluation in the diabetic patient, Strategies for behavioral changes, Managing stress. | 500 |
| | Educational approaches for special situations: Low literacy, Low income. Mentally or physically challenged individuals, Amputation. | 50 |
| | Diabetes Foot Care & Education Edema, Ulceration, Gangerne, Identifying foot at risk. | 140 |
| | Diabetes & Dental Care: Definition, preventive measures for dental problems, important aspects of oral hygiene, nutritional modification and appropriate instruction for treating periodontal disease. | 10 |
| | Hypoglycaemia & Hyperglycaemia: Causes, Symptoms, Prevention & Treatment. | 100 |
| | Developing an Individualized meal plan: Diet order, Menu setting, Supervising the diets. | 100 |
| | Standardization of recipe: To plan, calculate, calculate the nutritive value and demonstrate. | 50 |

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| | | |
| | <p>Managing a diabetes service: The multidisciplinary team, Organizing the Diabetes clinic, Documenting and monitoring the quality of care, Assessing and reporting outcomes. Research Projects on Diabetes.</p> | 200 |
| | <p>Practical training: Anthropometry evaluation, Diet Analysis, Diet Review, Diet prescription, System entries, Calorific values, Demonstration of equipment, Medical history and Medicine review, Patient education, Education questionnaire, Recipe demo.</p> | 400 |
| | <p>Communication skills: Role of communication, Defining communication, Classification of communication, Purpose of communication, Major difficulties in communication, Barriers to communication, Characteristics of successful communication-The seven Cs, Communication at the work place, Human needs and communication “mind mapping”, information and listening skills</p> | 10 |

SYLLABUS FOR PG DIPLOMA IN DIABETES EDUCATION

PAPER I: PATHOPHYSIOLOGY & LONG TERM COMPLICATIONS

Introduction:

Epidemiology: Definition, scope and uses of epidemiology, measuring disease frequency (prevalence, incidence rate), Epidemiology and prevention of chronic diseases, different levels of prevention (primordial, primary, secondary and tertiary) Types of studies and study design (qualitative and quantitative designs), Biostatistics – basic concepts (Mean, Median and Mode, Normal distribution)

Public Health Problems: Identifying individuals at high risk for type 2 Diabetes, Evidence for type 2 Diabetes prevention. The Community and health care facility.

Quality of care: Health outcome include treatment of glycemic control, lipid levels, blood pressure, frequency of self-monitoring of blood glucose. Patients centered outcomes includes patient satisfaction, well being and quality of life.

Role of educator: Multidisciplinary team approach to Diabetes Education describing the diabetes disease process and treatment option. Incorporating appropriate nutrition management. Goal setting to promote health, problem solving and daily living.

Pathophysiology of Diabetes: Types and causes, Disease process, Diagnostic criteria, Screening for Diabetes – why, when and how? (Urine sugar and blood sugar), Continuum of care (primary, secondary, tertiary, prevention)

Long term complications:

Macro vascular complication: It includes coronary artery disease, cerebral vascular and peripheral vascular disease – type, risk factors and intervention strategies.

Micro vascular complication: Diabetes Eye disease, Neuropathy, Nephropathy – Disease stage, diagnosis and treatment.

Other complications (foot, skin, gastrointestinal disorders, endocrine disease, psychological factors, etc.)

PAPER II: MANAGEMENT OF DIABETES AND DIABETES EDUCATION.

Management of Diabetes – overview: Aims of treatment, the importance of overall metabolic control, internationally recognized standards of care. The evidence for good control, physical assessment and laboratory assessment.

Practical management of Diabetes: Dietary management, insulin and oral therapy, Avoiding and managing hypo and hyperglycemia, Self _ management strategies during special situations (sick days, travel, hypoglycemic events, etc), Self monitoring (glycemic control & complications related to diabetes), Lifestyle issues, Newer trends in management.

Special considerations: Diabetes in children and adolescents, Diabetes in pregnancy, Diabetes in the elderly, Diabetes & infection, Diabetes in people living in poverty, surgical considerations in Diabetes.

Educational and behavioral interventions: Principles and practice of patient education, Measure and document patient outcomes, Problems and psychological evaluation in the diabetic patient, Strategies for behavioral changes, Managing stress.

Educational approaches for special situations:

Low literacy, Low income. Mentally or physically challenged individuals, Amputation.

Diabetes Foot Care & Education

Edema, Ulceration, Gangrene, Identifying foot at risk.

Diabetes & Dental Care:

Definition, preventive measures for dental problems, important aspects of oral hygiene, nutritional modification and appropriate instruction for treating periodontal disease.

Hypoglycaemia & Hyperglycaemia:

Causes, Symptoms, Prevention & Treatment.

Developing an Individualized meal plan:

Diet order, Menu setting, Supervising the diets.

Standardization of recipe:

To plan, calculate, calculate the nutritive value and demonstrate.

Managing a diabetes service:

The multidisciplinary team, Organizing the Diabetes clinic, Documenting and monitoring the quality of care, Assessing and reporting outcomes. Research Projects on Diabetes.

Practical training:

Anthropometry evaluation, Diet Analysis, Diet Review, Diet prescription, System entries, Calorific values, Demonstration of equipment, Medical history and Medicine review, Patient education, Education questionnaire, Recipe demo.

Communication skills:

Role of communication, Defining communication, Classification of communication, Purpose of communication, Major difficulties in communication, Barriers to communication, Characteristics of successful communication-The seven Cs, Communication at the work place, Human needs and communication “mind mapping”, information and listening skills.

RECOMMENDED LIST OF TEXT & REFERENCE BOOKS FOR DIABETIC EDUCATORS COURSE

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.

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.

Marion. J. Franz, MS RD LD, CDE,(2003), **Diabetes & Complications**, A core curriculum for Diabetes Education (Fifth Edition) – American Association of Diabetes Educators, Chicago, Illinois.

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.

RESOURCE MATERIAL/ METHODOLOGY FOR TEACHING:

Lectures, Slides using Over Head Projector (OHP) & LCD, Posters, Visual Aids, Pamphlets, Board, Models, Workshops, Seminars, Group activities, Counselling, Documentation, Questionnaires as Tools, Demonstration of Equipments