

KANNUR UNIVERSITY

(Abstract)

Certificate Course in Swimming Training under the School of Physical Education and Sports Sciences, Mangattuparamba Campus - Regulation, Scheme, Syllabus and model question papers - with effect from 2018 admission - Implemented - orders issued.

ACADEMIC 'C' SECTION

U.O. No. Acad/C4/12070/2018

Civil Station (P.O), dated 11 /07/2018

- Read: 1. Minutes of the meeting of the Syndicate vide item No 2017.143 Dated 14/03/2017.
2. Minutes of the meeting of the BOS in Physical Education(Cd) Dated 14/09/2017
3. U.O.No.Acad.A1/14212/2017. Dated 11/06/2018.
4. Letter No. Nil Dated.26/06/2018 from Dr.P.T.Joseph, the former Chairman, Board of Studies in Physical Education(Cd).

ORDER

1. As per the paper read (1) above, the Syndicate of the University considered the proposal for starting a Certificate Course in Swimming Training under the School of Physical Education & Sports Sciences, Mangattuparamba campus and resolved to grant permission for the same.

2. The meeting of the Board of Studies in Physical Education (Cd) held on 14/09/2017, prepared the draft scheme and syllabus for the Certificate Course in Swimming Training vide paper read (2) above. The board further authorized the Chairman, Board of Studies in Physical Education(Cd) to submit the Regulation, Scheme and Syllabus of the course to the university, for approval.

3. Vide paper read (3) above, sanction was accorded to start Certificate Course in Swimming Training with three months duration with an intake of 20 students under the School of Physical Education & Sports Sciences, Mangattuparamba Campus from the academic year 2018-2019.

4. Dr. P. T. Joseph, former Chairman, BOS in Physical Education (Cd) submitted the Regulation, Scheme, Syllabus and Model Question Papers of the Certificate Course in Swimming Training vide the paper read (4) above, for implementing the same with effect from 2018 admission.

5. The Vice-Chancellor, after considering the matter in detail and in exercise of the powers of the Academic Council, conferred under Section 11(1) of Kannur University Act, 1996 and all other enabling provisions read together with, the following orders are issued.

6. Sanction is accorded to implement the Scheme, Syllabus and model question papers for Certificate Course in Swimming Training under the School of Physical Education & Sports Sciences, Mangattuparamba Campus of the University with effect from 2018 admission, subject to reporting before the Academic Council.

P.T.O

7. The Regulation, Scheme, Syllabus and model question papers for the Certificate Course in Swimming Training implemented with effect from 2018 admission are uploaded in the University Website as Appendix to this order .

Orders are therefore issued accordingly.

Sd/-

**JOINT REGISTRAR (ACADEMIC)
For REGISTRAR**

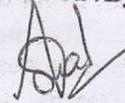
To:

The Head, School of Physical Education & Sports Sciences,
Mangattuparamba Campus

Copy to:

1. The Examination Branch ,3 copies(through PA to CE)
2. PS to VC/PA to PVC/PA to Registrar/PA to CE.
3. JR/AR-I/A,D Sections(Academic).
4. Computer Programmer(for uploading in the Website)
5. SF/DF/FC

Forwarded /By Order



SECTION OFFICER





KANNUR UNIVERSITY

**SCHOOL OF PHYSICAL EDUCATION AND
SPORTS SCIENCES**

REGULATION, SCHEME AND SYLLABUS

FOR

CERTIFICATE COURSE IN SWIMMING TRAINING

Appendix to U.O.No.Acad/C4/12070/2018 Dated 11/07/2018


KANNUR UNIVERSITY
SCHOOL OF PHYSICAL EDUCATION AND SPORTS SCIENCES
Regulation, Scheme of Examination and Syllabus for
Certificate Course in Swimming Training

1. **NAME OF THE COURSE:** Certificate Course in Swimming Training
2. **AIMS AND OBJECTIVES OF THE COURSE**
 - a) To teach the students the basic skills for becoming a good swimmer.
 - b) To study the principles of training related to swimming
 - c) To understand the basic structure and function of human body.
 - d) To study the kinesiology aspects of Exercise.
 - e) To use swimming for health and fitness.
3. **NATURE OF THE COURSE:** The course shall be full time regular and co-educational.
4. **DURATION OF THE COURSE:** The duration of the course shall be three months with 60 working days.
5. **ELIGIBILITY FOR ADMISSION**
 - (i) Candidates for admission to the Certificate Course in Swimming Training shall have passed HSC/+2/VHSC/10+3 Diploma or any other higher examinations recognized by the Kannur University.
 - (ii) Should be below 40 years as on the date of notification of the course. Age relaxation as per University Rules in the case of deserving candidates be given for maximum 5 years.
 - (iii) Should know swimming and should pass general swimming fitness test.
 - (iv) Should be physically and mentally fit to undergo swimming training
6. **RESERVATION OF SEATS**
Reservation of seats shall be as per rules framed by the Government/University from time to time.
7. **SELECTION CRITERIA**
The course shall have 20 (Twenty) seats in a batch. The selection of candidates for admission to the course shall be based on the merit determined by the following criteria:

i)	Entrance examination *	- 50 marks
ii)	Physical Fitness test swimming test norms	- 25 marks
iii)	Marks of the qualifying examination	- 25 marks
	Total	-100 marks

* Entrance examination shall be multiple choice questions based on the knowledge of Structure and functions of the body, Health, Objective English of HSC/+2 syllabus, General Knowledge and Current affairs. Candidates should score atleast 40% marks in the selection tests to place in the ranklist.

8. MEDIUM OF INSTRUCTION AND EXAMINATION

The medium of Instruction and Examination of the course shall be English.

9. COURSE CONTENT AND SCHEME OF EXAMINATION

Course Code	Course Content	Marks			Total Teaching hours
		Internal	External	Total	
CCST01	Principles and Methods of Swimming Training	40	60	100	60
CCST02	Human Anatomy Physiology and Kinesiology	40	60	100	60
CCST03	Swimming Practical	40	60	100	180
	Total	120	180	300	300

10. ATTENDANCE

The minimum attendance for both theory and practical required for each paper shall be 85% of the total number of classes conducted for the course. Those who secure the minimum attendance alone will be allowed to register for the University examination.

Attendance (For Internal Valuation)

Above 95 % - 5 marks

90 to 94 % - 4 marks

85 to 89 % - 3 marks

Below 85 % - 0 marks.

Condonation of shortage of attendance, to a maximum of 5 days of the working days during the whole period of the course may be granted as per the existing university rules. A student who is not eligible for such condonation shall repeat the Course along with the subsequent batch.

11. SCHEME OF EVALUATION

The evaluation of a course consists of two parts: Internal Evaluation (IE) and External Examination (EE). The total marks allotted for the theory papers and Practical shall be 100, with 40 % marks for Internal Evaluation and 60% marks for the External Examination (EE).

12. INTERNAL EVALUATION

Internal Evaluation for theory and practical shall be on the basis of the internal examinations, assignments, seminars and attendance. The valuation shall be conducted by the concerned teacher. The students shall also maintain a record book which should be submitted at the time of the University examinations.

Internal Evaluation of Theory Papers

Details of Internal Assessment	Marks
Test Papers	15
Assignment	10
Seminar Presentation	10
Attendance	5
Total	40

Internal Evaluation of Practical Examination

Details of Swimming Training practical	Marks
Demonstration	20
Instructions, Skills, Communications, Time management etc.	10
Viva Voce	10
Total	40

13. EXTERNAL EXAMINATION

The External Examinations in theory and practical shall be conducted by the University after the completion of the required theory and practical classes of the course. The duration of University Examination for each theory paper shall be for 3 hours. The Head of the Department of the Course shall submit the attendance certificate, marks of internal assessments of eligible candidates for attending the University examination.

External Examination of Practicals shall be conducted by the university with two examiners-one internal and one external. There shall be no provision for revaluation. There shall be no supplementary examinations. For reapparence / improvement, the students can appear along with the next batch. There shall be no improvement chance for internal evaluation.

External Examination of Theory Papers: Question Paper Pattern

Type of questions	Number of Questions	Questions to be answered	Marks	Total Marks
Section A- Essay Questions	4	2	15	30
Section B -Short Essay Questions	4	2	10	20
Section C -Short Answer Questions	8	5	2	10
Total Marks	16	9		60

Practical Examination (External Valuation)

Details of Swimming Training Practical	Marks
Demonstration	20
Instructions, Skills, Communications, etc.	15
Viva Voce	10
Record	15
Total	60

14. **PROMOTION AND PASS**

Students who secure not less than 50% marks in aggregate and separately in internal and external examinations in each of the theory papers and in practical shall be declared to have passed the certificate course in Swimming Training Examination. There will not be ranking and classification of marks/ results.

15. **GRIEVANCE REDRESSAL MECHANISIM**

As per the Regulations framed by the University

16. **FACULTY** : This Course is under the Faculty of Sports Science & Physical Education.

SYLLABUS**CCST01- PRINCIPLES AND METHODS OF SWIMMING TRAINING****UNIT-1 INTRODUCTION**

- 1.1 Swimming-Meaning and definition
- 1.2 Basic swimming skills –submerging, jumping, floating, locomotion & breathing -
- 1.3 Swimming pool rules and regulations
- 1.4 Safety and Sanitation of swimming pools
- 1.5 Chemicals required for maintenance
- 1.6 Pool water tests
- 1.7 Maintenance of Pool equipments.

UNIT-II -ORGANISATION

- 2.1 Swimming class management
- 2.2 Swimming competitions

UNIT-III - TECHNIQUES AND TEACHING OF DIFFERENT STROKES

- 3.1 Body position, arm action, leg action, breathing and coordination of Free Style
- 3.2 Body position, arm action, leg action, breathing and coordination of Back Stroke
- 3.3 Body position, arm action, leg action, breathing and coordination of Butterfly
- 3.4 Body position, arm action, leg action, breathing and coordination of breast Stroke
- 3.5 Grab Start- Track Start- Back Stroke Start
- 3.6 Free Turns - Open Turns

UNIT-IV SURVIVAL AND LIFE SAVING TECHNIQUE OF SWIMMING

- 4.1 Meaning and definition of First Aid
- 4.2 The PRICE principles of first aid -
- 4.3 The ABC and steps involved in Cardiopulmonary Resuscitation (CPR)
- 4.4 Life Saving - Indirect method- By reaching pole, By life saving rings, By rope, By life jacket - Direct method - Jumps, Approach, Hold, Artificial Resuscitation
- 4.5 Treatment for drowning ,fracture ,sprain and strain at swimming pool.

UNIT V- DIET , NUTRITION AND RECREATION

- 5.1 Basics of Nutrition :□Macro Nutrient, Micro Nutrient
- 5.2 Sources and functions of Nutrients
- 5.3 Balance diet- Calories & diet
- 5.4 Exercise & diet
- 5.5 Relationship between diet and swimming performance.
- 5.6 Active recreation in swimming Pools.

References

1. Swimming. Human Kinetics Publishers, Inc Box5076, Champaign, IL 61820.
2. Maglisco, E.W.(1999): Swimming Fastest Mansfield Publishing Company, Polo Alto, California
3. Counsilman J.E.(1977): The Complete book of Swimming. M.C.Cleff and Stewart Ltd.
4. Counsilman, J.E.(1978): Competitive Swimming Manual for Coaches and Swimmers. Pelham Books Ltd., 27 Wrights Lane, London W-8-572.
5. Counsilman, J.E. and Counsilman, J.E.(1994): the new Science of Swimming Practice Hall, Englewood Cliffs, N.S. 07632.
6. Colwin C.H.(1992): Swimming into 21st Century. Leisure Press, Champaign, Illinois. 91825.,
7. Gallagher, H.(1970): Harry Gallagher on Swimming. Pelham Book Ltd. 52 Bedford Square London, W.C.I.
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9. Hogg, J.(1977). Success in Swimming. John Murray Publishers, 50Athemonde Street, London W1 4BD.
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12. McElroy G.K.(1985): Swimming and Life Saving. The Royal Life Saving Society Australia, 1982 (Reprint).
13. Practical guide to First Aid Dr. Pippa Keech MBchB MRCGP ,published by Lorens Books, 2003
14. 'First Aid the Vital Link' The Canadian Red Cross Society , Mosby Lifeline 1994
15. Clark N (1997) Nancy Clark's Sports Nutrition Guidebook. Second Edition. Human Kinetics, Champaign Illinois.
16. Sharad Chand Mishra. Dr. (2005) Concepts & issues in sports Nutrition

CCST02 - HUMAN ANATOMY PHYSIOLOGY AND KINESIOLOGY

UNIT– I

Meaning of Anatomy and Physiology -**Cell**: Structure & Functions - The Cell theory - Types, shapes and size of cells -Organelles and their functions - Process of Active and Passive Transport in cells, DNA, Genes and Chromosomes- **Tissues**- Types of Tissues - Structure and functions of tissues :Epithelial tissue-Connective tissue -Muscular tissue - Nervous tissue

UNIT-II : SKELETAL SYSTEM

Axial and Appendicular skeleton - Classification of bones - Skeletal development from embryo to maturity - Classification of joints- Spinal Column & its Common Structural Deformities - Effect of Exercise on Skeletal System.

UNIT III: CARDIO RESPIRATORY SYSTEM

Structure and functions of the Heart- The organization of systematic and pulmonary circulation, Heart rate measurement , cardiac cycle, Cardiac output - Blood pressure (systolic/ Diastolic) - Calculation of Target Heart Rate zone -Respiration mechanism- Respiratory rate- $VO_{2\text{Max}}$ - Minute Ventilation- - Effect of Exercise on Cardio Respiratory System.

UNIT IV: NERVOUS SYSTEM, ENDOCRINE SYSTEM AND DIGESTIVE SYSTEM

Nervous System Structure and functions of Neuron - Central nervous system (Brain and spinal cord) - Peripheral nervous system- Autonomic nervous System (Sympathetic and Para sympathetic nervous systems) -Effect of Exercise on nervous system. **-Endocrine System-** Location, structure and function of endocrine glands - Effect of exercise on Endocrine system. **-Digestive System-** Structure of digestive system - Mechanism of ingestion, digestion, absorption, assimilation & excretion - Effect of Exercise on Digestive system.

UNIT V: KINESIOLOGY

Kinesiology, Meaning and definition– Importance of Kinesiology – Fundamental concepts : Anatomical position, Body Cavities-, Axis, Planes and Directional terms – Fundamental movements- Major muscles of the upper body and lower body and their functions - Muscle Movement Classification –Agonist, Antagonist, Target , Synergist , Stabilizer, Connective tissues of muscular system - Tendons, Ligaments, Cartilage, Fascia Bursa -Muscle Attachments : Origin , Insertion - Types of muscle contraction – Isotonic contraction- Concentric and Eccentric, Isometric (Static)- Posture and Movement analysis.Effect of Exercise on Muscular System.

References

1. Saladin – Anatomy & Physiology : The Unit Form and Function, Published by
2. McGraw –Hill New York, 3 Ed, 2004
3. Gerard J. Tortora “Principles of Anatomy & physiology, Published by John Wiley & Sons, Inc, New York, 9th Ed, 2000
4. William Peter. L. Gray's Anatomy. Edinburgh; Churchill living stone, 1980.
5. Pearce Ecelyn C. Anatomy and Physiology for Nurses, Oxford University press, Kolkatta, 1978.
6. Thimpson, Elern. W. and R.T. Floyd; Manual of structural Kinesiology, St, Louis Morby 1994.
7. Hamilton, Nancy, Kinesiology, Boston , McGraw Hill, 2002
8. Crouch James E. – Essential Human Anatomy A Text – Lea & Febriger , Philladelphia, 1980.
9. Hay, James G & Reid J.G. – Anatomical and Mechanical Basis of Human Motion, Prentice hall, New Jersey, 1985.

10. Jenson C.R. & Schultzer G.W. – Applied Kinesiology and Biomechanics, McGraw Hill Book Co. New York, 1984,
11. Lockhart and others – Anatomy of the human body, Feber & Feber Oxford University, 1975
12. Pearce Evelyn – Anatomy and Physiology for Nurses, Oxford University, 1975.
13. Rasch & Bruke – Kinesiology and applied Anatomy, Lea Febrieger, Philadelphia, 1978.
14. Rasch, Philip J. – Kinesiology and Applied Anatomy, Lea Febrieger, Philadelphia, 1989.

CCST03 -SWIMMING PRACTICAL

UNIT I - General exercises for swimming

- 1.1 General and specific warm up on land and in water
- 1.2 Limbering down

UNIT II - Development of General conditioning abilities.

- 2.1 Freehand/calisthenics exercises.
- 2.2 Development of basic endurance in swimming.
- 2.3 Development of basic strength, speed, flexibility and coordinative abilities required in swimming.

UNIT III - personal performance and demonstration ability in swimming strokes

- 3.1 Free style
- 3.2 Back stroke
- 3.3 Breast stroke
- 3.4 Butterfly
- 3.5 All starts and Turns

UNIT IV -Practice on Life Saving. Teaching Practice:

- 4.1 Indirect Method- Pole, rings, rope, life jacket
- 4.2 Direct Method- Jumps, Approach, Hold, Artificial Resuscitation
- 4.3 Steps in Cardio Pulmonary Resuscitation (CPR)

UNIT V- Test and Measurement

- 5.1 Swimming performance ability test- Speed test and Endurance test.
- 5.2 Cardio respiratory fitness - 12 Min. Run or Walk Test/ Harvard Step Test
- 5.3 Flexibility- Sit and reach test
- 5.4 Body composition - BMI/ Skin Fold Calliper

References

1. Maglischo, E.W.(1999): Swimming Fastest Mansfield Publishing Company, Polo Alto, California.
2. McElroy G.K.(1985): Swimming and Life Saving. The Royal Life Saving Society Australia, 1982
3. Sweetenham B. and Atkinon J.(2003): Championship Swim Training. Human Kinetics P.O.Box 5076, Champaign IL 618250-5076,800-746-4457.
4. Hogg, J.(1977). Success in Swimming. John Murray Publishers, 50Athemonde Street, London W1 4BD.
5. Lewin, G.(1979): Swimming Sport Verlag, Berlin.

CERTIFICATE COURSE IN SWIMMING TRAINING

Model Question Paper

Name.....

Question Code.....

Reg.No.....

CCST01 - PRINCIPLES AND METHODS OF SWIMMING TRAINING

Time : Three hours

Maximum marks : 60

Section A

Answer any *two* of the following. Each question carries *15* marks

1. What are the important rules and regulations in swimming pool?
2. Discuss the various types of Swimming competitions.
3. What are the important steps involved in Butterfly stroke?
4. Discuss the Indirect methods of Life Saving in swimming pool

Section B

Answer any *two* of the following. Each question carries *10* marks

5. Discuss the basic swimming skills
6. what are the factors involved in managing Swimming class ?
7. Discuss the important steps involved Free Style stroke
8. Discuss the steps involved in steps involved in Cardiopulmonary Resuscitation (CPR)

Section C

Answer any *five* of the following. Each question carries *2* marks

9. Sanitation of swimming pools
10. Free turns
11. PRICE principles of first aid
12. Direct methods of Life saving
13. Micronutrients
14. Active recreation in swimming pools
15. Back Stroke Start
16. Diet in swimming training.

CERTIFICATE COURSE IN SWIMMING TRAINING**Model Question Paper**

Name.....

Question Code.....

Reg.No.....

CCST02 - HUMAN ANATOMY PHYSIOLOGY AND KINESIOLOGY**Time : Three hours****Maximum marks : 60****Section A**Answer any *two* of the following. Each question carries *15*marks

1. Cell is the structural and functional unit of an organism. Explain with diagram.
2. Discuss different types of bones and synovial joints giving example for each.
3. Explain the process of Digestion and absorption of the products of digestion
4. What is Anatomical position? Explain Body Cavities, Axis, Planes, Directional terms Fundamental movements with diagrams.

Section BAnswer any *two* of the following. Each question carries *10*marks

5. Why Pituitary is called the master gland of endocrine system.? Discuss
6. Discuss the important muscles in the upper body and their functions
7. Briefly discuss the function of the heart
8. Draw a neat diagram of neuron and discuss its functions.

Section CAnswer any *five* of the following. Each question carries *2* marks

9. Muscle Movement Classification
10. Lungs volume
11. Inter vertebral disc
12. Types of muscle contraction
13. Types of tissues
14. Thyroid
15. Autonomic nervous System
16. Mechanics of respiration