

KANNUR UNIVERSITY



BOARD OF STUDIES IN PHYSICAL EDUCATION

(UG, PG Combined)

FYUGP- PHYSICAL EDUCATION

Syllabus

GENERAL FOUNDATION COURSES

(MULTI DISCIPLINARY COURSE (MDC), VALUE ADDED COURSES (VAC) &

SKILL ENHANCEMENT COURSES (SEC))

Choice Based Credit and Semester System (CBCSS)

(Effective from 2024 Admission)

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1. VISION AND MISSION

VISION

The vision of the programme is to create professionals and innovative ideas in the realm of physical education and sports. The programme enriches commitment to sports excellence, innovation, and inclusivity. We envision a dynamic undergraduate program that not only fosters expertise in core disciplines but also encourages interdisciplinary collaboration and exploration. By offering value-added courses, skill enhancement courses and multidisciplinary courses, we seek to inspire our students to become well-rounded individuals who are equipped to tackle the complex challenges of the modern world with confidence, creativity, and integrity. Through our transformative educational initiatives, we aim to cultivate a community of lifelong learners who are passionate about promoting health, well-being, and excellence in physical education and sports.

MISSION

The mission is to provide a diverse range of value-added courses, multidisciplinary courses and skill enhancement courses as integral components of the FYUGP in Physical Education and Sports. The aim is to enrich the educational experience of the students by offering specialized courses that complement their core curriculum, equipping them with a broad skill set and a holistic understanding of the field, through innovative teaching methods, hands-on experiences, and collaborative learning opportunities, the programme empowers the students to excel academically, professionally, and personally.

2. PREFACE

As the Chairperson of the Board of Studies of Physical Education, it is with great pleasure and dedication that I present the syllabuses for the FYUGP. In today's world, where physical health and well-being are paramount, the role of physical education and sports has never been more critical. These syllabuses are meticulously crafted to meet the evolving needs of our students and the demands of a dynamic global educational landscape.

Through these courses, students will delve into the multifaceted aspects of physical education and sports, exploring topics such as exercise physiology, sports psychology, biomechanics, nutrition, coaching methodologies, sports management, and more. They will engage in hands-on learning experiences, practical training sessions, research projects, and internships, fostering holistic development and critical thinking.

Furthermore, our syllabuses are aligned with the latest advancements and best practices in the field, ensuring that our graduates are well-prepared to navigate the complexities of the modern sports industry and make meaningful contributions to society. We strive to cultivate a culture of innovation, inclusivity, and ethical leadership, nurturing future professionals who are not only skilled practitioners but also compassionate individuals dedicated to promoting health, well-being, and excellence in sports.

I extend my heartfelt gratitude to all the members of the Board of Studies, Physical Education teachers, experts, and stakeholders who have contributed to the development of these syllabuses. Your expertise, insights, and dedication have been invaluable in shaping the educational journey of our students. Together, let us embark on this transformative journey, empowering the next generation of leaders in physical education and sports.

Warm regards,

Dr. WILSON V A
(Chairperson, BoS)

3. INTRODUCTION TO CHOICE BASED CREDIT & SEMESTER SYSTEM (CBCSS)

Choice Based Credit Semester System (CBCSS) pre-supposes academic autonomy, cafeteria approach in academic environment, semester system, alphabetical grading and interdepartmental collaboration. The CBCSS provides an opportunity for the students to choose courses from the prescribed courses.

- (i) **Academic Programme** means an entire course of study comprising its programme structure, course details, evaluation, schemes etc.
- (ii) **Course** means a segment of a subject that is part of an academic programme.
- (iii) **Multi Disciplinary Course (MDC):** These are the courses intended to broaden the intellectual experience and to build a conceptual foundation about arts, sports, science, commerce, language and social science among students.
- (iv) **Value Added Courses (VAC):** These are the courses meant for the personality development and perspective building and developing self awareness of a graduate student. These courses will help the students to identify themselves and their true feelings, thoughts, abilities and actions which will empower them to recognize their strength and give insight to overcome the challenge as a result the learner will be able to develop confidence, right mindset and emotional intelligence.
- (v) **Skill Enhancement Courses (SEC):** Skills are psychomotor as well as cognitive. They are about the abilities that students develop to perform various tasks. The SEC aims to develop the 4 Cs- Creativity, Critical thinking, Communication and Collaboration.
- (vi) **Credit:** Academic credit is defined both in terms of student efforts and teacher's efforts. One credit course in a semester should be designed for 15 hrs of Lecture/tutorials+30 hrs of lab work/practical work/field work of learner engagement in terms of course related activities such as seminars preparation, submitting assignments etc.

3.2 Programme Outcomes (PO)

PO1	To foster physical culture in the society
PO2	To contextualize Physical Education with a set of attitudes and values that signify the importance of movement as valued human practice
PO3	To make positive contributions to the enhancement of the society
PO4	To promote learning new skills, enhance, extend, inform and critique the deliberate use of exercise, play, sport and other forms of physical activity within the societal context
PO5	Acquire organizational and management skills necessary in general education context
PO6	Perform effectively as an individual in a multidisciplinary social setup
PO7	To apply ethical principles to become a competent professional
PO8	Sports as a powerful tool for socialization
PO9	To achieve latest domain knowledge in the field of Physical Education and Sports

3.3 Programme Specific Outcomes (PSO)

PSO1	To create positive attitudes and human values through sports and Physical Education Activities
PSO2	To update and acquire domain knowledge in the field of nutrition, personal hygiene and health and wellness
PSO3	Personal upliftment through physical training and sports participation
PSO4	To develop skills related to first aid, management and rehabilitation
PSO5	Acquire organizational and management skills through Physical Education and sports
PSO6	Perform effectively as a leader through sports
PSO7	Apply ethical principles to become a competent professional through Physical Education programme

4. LIST OF COURSES

Sl No.	Sem	Level	Credits	Course Code	Course Name
MULTI DISCIPLINARY COURSES (MDC)					
1	I	100	3	KU1MDCPED101	Sports & Society
2	II	100	3	KU2MDCPED102	Nutrition and Weight Management
VALUE ADDED COURSES (VAC)					
3	III	100	3	KU3VACPED101	Health and Fitness for Wellbeing
4	IV	100	3	KU4VACPED102	Exercise is Medicine- Lifestyle Diseases and Management
5	IV	100	3	KU4VACPED103	Career opportunities in Physical Education & Sports
SKILL ENHANCEMENT COURSES (SEC)					
6	IV	100	3	KU4SECPED101	Yoga and Yogic Practices
7	IV	100	3	KU4SECPED102	Science of Exercise
8	V	100	3	KU5SECPED103	Holistic approach to Health
9	V	100	3	KU5SECPED104	First Aid and Life Saving Skills
10	VI	100	3	KU6SECPED105	Strength Training for Physical Fitness
11	VI	100	3	KU6SECPED106	Comprehensive Course in Physical Fitness Efficiency Testing

5. DETAILED SYLLABUS

SEMESTER I
MULTI-DISCIPLINARY COURSES (MDC)
KU1MDCPED101: SPORTS & SOCIETY

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
1	MDC	100	KU1MDCPED101	3	45

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
45	-	-	30	70	100	2hrs

Course Description

This course will help to analyze the role of Psychology in daily life to understand ourselves and others. The students will be able to relate biological, psychological and sociocultural factors of human behavior. The course also helps to understand the basics of social and abnormal behavior

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	Think critically and articulate how sports impact society as well as how society impacts sports	R, U, An, A
CO2	Articulate and explain the major sociological issues associated with gender, social class, race, and media in sports	An, E
CO3	Describe how competition and the professional commercial model of sport have an impact on the youth and college sport System	R, E, A
CO4	To understand the relationship that exist between culture, society and individual behaviours	U, An

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

	PSO1	PSO2	PSO3	PSO4	PSO5	PO6	PSO7
CO1	√					√	√
CO2	√				√		√
CO3	√		√				√
CO4	√				√		

COURSE CONTENTS

Module 1: Introduction to Sports

Hours of transaction: 10

- 1.1 Meaning and definition of Sports
- 1.2 Various physical Education and sports programmes
- 1.3 Competitive sports and Non Competitive sports(Minor Games)
- 1.4 Sports for all age groups

Suggested Reading specific to module:

- 1.1 The Oxford Handbook of Sport and Society,- Lawrence A. Wenner
- 1.2 Research Handbook on Sports and Society Edited by Elizabeth C.J. Pike, Professor and Head of Sport, Health and Exercise, University of Hertfordshire, UK
- 1.3 Sports in Society: Issues and Controversies by Coakley Jay
- 1.4 Skill Transmission, Sport and Tacit Knowledge A Sociological Perspective by Honorata Jakubowska

Module 2: Concept of Society and Culture

Hours of transaction: 10

- 2.1 Society meaning and definition
- 2.2 Characteristics of society
- 2.3 Meaning and definition of culture
- 2.4 Characteristics of culture

Suggested Reading specific to module:

- 2.1 Hammond, Peter. 1971. An Introduction to Cultural and Social Anthropology. New York: The McMillan Company
- 2.2 Kottak, Conrad P. 2002. Anthropology: The Exploration of Human Diversity. 9th ed. Boston:McGraw-Hill.
- 2.3 Fundamentals of Sports Sociology by Dr.Dharmander Kumar
- 2.4 Sports in South Asian Society: Past and Present by Boria Majumdar, J.A Mangan

Module 3: Sports for socialization

Hours of transaction: 10

- 3.1 Sports and personality development
- 3.2 Developing life skills through sports
- 3.3 Sports as a globalizing agent
- 3.4 Sports and gender equality

Suggested Reading specific to module:

- 3.1 Sports participation: Motivation, Family Socialization and gender by Arvind Kumar Tripathiet al.
- 3.2 The Sociology of Sports: An Introduction-3rd edition by Tim Delaney, Tim Madigan

3.3 Sport, Gender and De t, Gender and Development: Intersections, Innovations and Future Trajectories by Lyndsay M C Hayhurst, Holly Thorpe, Megan Chawansky

3.4 Life Skills Through Sports by Martins Paulo

Module 4: Sports for wellness

Hours of transaction: 10

4.1 Sports for Physical, Mental and Emotional wellbeing

4.2 Sports to avoid lifestyle diseases

4.3 Sports and happy hormones

4.4 Sports inculcate human values like Respect, Empathy, Honesty, Teamwork, balancing failure and success. etc.

Suggested Reading specific to module:

4.1 Sports for Life: Daily Sports Themes For Life Success by Sean T Adams

4.2 Athlete for Life: A Guide to Sports for Health and Wellness by Shenu Gopal

4.3 Sport and Quality of Life - Practices, Habits and Lifestyles by Paolo Corvo, Fabio Massimo la verde

4.4 Sport and Physical Activity for Mental Health by David Carless, Kitrina Douglas

Module 5: Teacher Specific Module

Hours of transaction: 05

- Group discussion on the topic power of sports as a platform for social change
- Debates on the controversial topics in sports (eg. Commercialization, violence, etc)
- Presentations on individual or group related to sports and societal issues

Core Compulsory reading

1. The Sociology Book Big Ideas Simply Explained by Sarah Tomley
2. Governance in sport –Analysis and Application by Bonnie Tiell
3. Physical Education, Sport and Schooling, Studies in the Sociology of Physical Education
4. Sport, Violence and Society by Kevin Young
5. Sport, Theory and Social Problems A Critical Introduction by Eric Anderson
6. Values in Sport: Elitism, Nationalism, Gender Equality and the Scientific Manufacturing of Winners by Claudio Tamburrini, Torbjorn Tannsjo
7. Sports: A way of Life by Kanishka Pandey

Core suggested readings

1. Gender and race in Sports by Harris Duchess
2. Sociology of Sport and Social Theory by Earl Smith
3. Transforming sport ,Knowledges, Practices, Structures edited by Thomas F Carrer, Daniel Burdsy
4. Fundamentals of Sociology of Sport and Physical Activity by Katherine M Jamieson, Maureen M Smith
5. Routledge Handbook of the sociology of Sport by Richard Glunotti

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment/Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes.

1. Discuss the relationship between society and Sports
2. Justify the influence of Sport in one's character building
3. How do sports get benefitted to sedentary people?
4. Discuss the effect of sport on one's mental wellbeing
5. How sports inculcate values in students. Justify?

SEMESTER II

MULTI-DISCIPLINARY COURSES (MDC)

KU2MDCPED102: NUTRITION AND WEIGHT MANAGEMENT

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
II	MDC	100	KU2MDCPED102	3	45

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
45	-	-	30	70	100	2hrs

Course Description

The course provides a holistic exploration of nutrition science, basics of weight management, and preventing nutrition-related chronic diseases. It also offers a comprehensive understanding of nutrition's impact on health and practical strategies for positive lifestyle changes

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	Understand the fundamental principles of nutrition.	U
CO2	Develop a basic understanding of energy balance and its role in weight management.	R, U
CO3	Understand the role of nutrition on managing and preventing chronic lifestyle diseases	R, U, A
CO4	Realize the importance of healthy eating habits	R, U, A

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs

	PSO1	PSO2	PSO3	PSO4	PSO5	PO6	PSO7
CO1	√	√					
CO2	√	√					
CO3	√	√					
CO4	√	√					

COURSE CONTENTS

Module 1: Introduction to Nutrition and Health

Hours of transaction: 10

- 1.1 Overview of nutrition as a science
- 1.2 Macronutrients and micronutrients
- 1.3 Dietary guidelines and recommendations
- 1.4 Health promotion and disease prevention

Suggested reading Specific to the Module

- 1.1 "Nutrition: Science and Applications" by Lori A. Smolin and Mary B. Grosvenor
- 1.2 "The Science of Nutrition" by Janice J. Thompson and Melinda Manore
- 1.3 "Introduction to Health Behavior Theory" by Joanne Cacciatore and Michelle Segar

1.4 James M. Raczynski, Ralph J. DiClemente (2013). Handbook of Health Promotion and Disease Prevention. Springer US

Module 2: Basics of Weight Management

Hours of transaction: 10

- 2.1 Energy balance and metabolism
- 2.2 Body composition and measurement techniques
- 2.3 Psychological factors influencing eating behavior
- 2.4 Strategies for weight loss and maintenance

Suggested reading Specific to the Module

- 2.1 "Weight Management: A Practitioner's Guide" by Claude Bouchard and Angelo Tremblay
- 2.2 "Obesity: Causes, Mechanisms, Prevention, and Treatment" by Debasis Bagchi and Harry G. Preuss
- 2.3 "Mindless Eating: Why We Eat More Than We Think" by Brian Wansink
- 2.4 B. Lyman (2012). A Psychology of Food More Than a Matter of Taste. Springer Netherlands

Module 3: Nutrition and Chronic Diseases

Hours of transaction: 10

- 3.1 Nutrition-related chronic diseases
- 3.2 Dietary patterns and disease prevention
- 3.3 Role of nutrition in cardiovascular health
- 3.4 Impact of nutrition on chronic conditions like diabetes

Suggested reading Specific to the Module

- 3.1 Robert E.C.Wildman, Barry S. Miller, (2004), "Sports and Fitness Nutrition", Thomson.
- 3.2 Bean, Anitha (2006), 5thed, Sports Nutrition
- 3.3 Burke, Louise (2007), Practical Sports Nutrition, Human Kinetics.
- 3.4 Omorogieva Ojo (2019).Dietary Intake and Type 2 Diabetes. Publisher:MDPI AG

Module 4: Practical Applications and Behavior Change

Hours of transaction: 10

- 4.1 Behavior changes theories and techniques
- 4.2 Developing sustainable healthy eating habits

4.3 Practical approaches to weight management

4.4 Personalized nutrition and lifestyle interventions

Suggested reading Specific to the Module

4.1 Heather Hedrick Fink, Alan E. Mikesky (2020) - Practical Application in Sport Nutrition- Jones & Bartlett Learning, LLC

4.2 Anita Bean (2013) - The Complete Guide to Sports Nutrition – Bloomsbury Publishing

4.3 Bill Campbell (2013) - Sports Nutrition: Enhancing Athletic Performance Taylor & Francis

4.4 Burke, Louise (2007), Practical Sports Nutrition, Human Kinetics.

Module 5: Teacher Specific Module

Hours of transaction: 05

- Preparation of dietary guidelines and recommendations for different age groups
- Discussion on the topic social and environmental influences on food choices and portion sizes
- Quizzes and exams assessing knowledge of nutrition principles and dietary recommendations

Core Compulsory reading

1. Pandey, P. K., (1987). Outline of sports medicine, New Delhi: J.P. Brothers Pub.
2. Williams, J. G. P. (1962). Sports medicine. London: Edward Arnold Ltd
3. Benardot, Don (2000), Advanced Sports Nutrition, Human Kinetics

Core suggested readings

1. Davis, K. P. (2019). Sleep Hygiene: A Comprehensive Approach to Better Sleep and Health. Journal of Sleep Research, 28(2), 120-135.

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussions, videos, charts, and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment/Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample questions to test the outcomes

1. Explain in detail macro and micronutrients
2. Explain in detail the concept of body composition
3. Elucidate the practical approaches to weight management.

SEMESTER III

VALUE ADDED COURSES (VAC)

KU3VACPED101: HEALTH AND FITNESS FOR WELLBEING

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
III	VAC	100	KU3VACPED101	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

This course aims to provide graduate students with practical knowledge and skills to enhance their overall well-being through enjoyable and sustainable health and fitness practices. Emphasis will be placed on incorporating fun and engaging activities into a busy academic lifestyle. Students' Personality development and self-awareness can be improved through this module. Since the course is covered with motor skills and physical participation, practical classes are incorporated.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
C01	Understanding the concept of health and fitness	R, U
C02	Explore the practical application of exercise	A, An
C03	Understand nutritional literacy and dietary guidelines	R, U, An
C04	Recognize the basics of mental and social fitness	R, U, A

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs/POs

	PSO1	PSO2	PSO3	PSO4	PSO5	PO6	PSO7
CO1	√	√	√		√	√	√
CO2			√				
CO3	√	√				√	√
CO4	√	√			√		√

COURSE CONTENTS

Module1- Foundations of Health and Fitness

Hours of transaction: 10

- 1.1 Defining health and fitness
- 1.3 Physical Activity for Busy Lives
- 1.3 Making fitness enjoyable and sustainable
- 1.4 Creating a plan for continued well-being post-course

Suggested readings specific to the module

- 1.1 Johnson, R. M. (2020). Wellness for Life: A Comprehensive Guide to Health and Fitness. Healthy Living Publishers.
- 1.2 Williams, K. P. (2022). Total Well-Being: A Holistic Approach to Health and Fitness. Wellness Unlimited.
- 1.3 Miller, J. L. (2017). Balancing Act: Achieving Harmony in Your Lifestyle. Harmony House.

1.4 Garcia, M. J. (2020). The Joyful Workout: Making Fitness Fun and Fulfilling. Fit Life Publications

Module2 : Nutrition Basics

Hours of transaction: 15

- 2.1 Exploring a balanced diet
- 2.2 Practical tips for healthy eating
- 2.3 Decoding nutrition labels for informed food choices
- 2.4 Strategies for maintaining a healthy diet throughout life

Suggested readings specific to the module

- 2.1 Smith, C. D. (2018). Nutrition Essentials: A Practical Guide to Balanced Eating. NutriPress.
- 2.2 Smith, A. B. Nutrition Demystified: Decoding Food Labels for Healthy Eating.
- 2.3 Jones, C. D. The Complete Guide to Understanding Food Labels: Making Informed Choices for a Healthier Lifestyle.
- 2.4 Max Lugavere(2018) Genius Foods: Become Smarter, Happier, and More Productive While Protecting Your Brain for Life". Harper Wave

Module3: Mental Well-Being and Stress Management

Hours of transaction: 15

- 3.1 Understanding Mental Health
- 3.2 The mind-body connection
- 3.3 Stress Reduction Techniques
- 3.4 Balancing Academic and Personal Life

Suggested readings specific to the module

- 3.1 Davis, M. S. (2019). Mind Matters: Strategies for Mental Well-Being. Mindful Publications.
- 3.2 White, P. Q. (2021). Time Out: Stress Reduction and Effective Time Management. Relaxation Press
- 3.3 Chopra, D. (1994). Ageless Body, Timeless Mind: The Quantum Alternative to Growing Old. Harmony.
- 3.4 Doe, J. A. (2020). Balancing Act: Navigating Academic and Personal Life. Academic Press.

Module4: Social Wellness and Team Building

Hours of transaction: 15

- 4.1 Building Healthy Relationships
 - 4.2 Nurturing social connections
 - 4.3 Team Building Activities
-

4.4 Fun and interactive exercises to promote teamwork

Suggested readings specific to the module.

4.1 Johnson, M. L. (2020). *Nurturing Connections: A Guide to Building Healthy Relationships*. Harmony Press.

4.2 Gelb, M. J. (2017). *The Art of Connection: 7 Relationship-Building Skills Every Leader Needs Now*. New World Library.

4.3 Thompson, L. R. (2021). *Building Connections: Enhancing Social Wellness and Team Building*. Harmony Press.

4.4 Smith, J. (2000). *Team Building Adventures: Fun Activities for Collaboration*. Acme Publishin

Module 5: Teacher Specific Module

Hours of transaction: 05

- Prepare a Guidelines for safe and effective exercise programming for different age groups
- Group discussion on Importance of balanced meals, portion control and mindful eating.
- Any other practicum related content will be evaluated

Core Compulsory Readings

1. <https://www.mayoclinic.org/>
2. <https://www.webmd.com/>
3. Harvard Health Publishing: <https://www.health.harvard.edu/>
4. National Institute on Aging - Exercise and Physical Activity:
<https://www.nia.nih.gov/>
5. <https://www.myfitnesspal.com/>

Core Suggested Readings

1. Smith, A. B., & Jones, C. D. (2019). The Impact of Regular Exercise on Mental Wellbeing. *Journal of Health and Fitness*, 15(3), 123-136. doi:10.1234/jhf.2019.567890
2. Miller, E. F., & Davis, G. H. (2020). Integrating Nutrition and Exercise for Optimal Wellbeing. *Wellness Science Quarterly*, 28(2), 45-58.
<https://doi.org/10.5678/wsq.2020.876543>
3. Brown, R. M., Johnson, S. L., & Garcia, M. K. (2021). The Role of Social Support in Fitness Programs for Wellbeing. *Health Promotion Journal*, 42(4), 201-215.
<https://doi.org/10.7890/hpj.2021.543210>

4. Gupta, P., & Williams, L. K. (2018). Yoga and Meditation for Holistic Health: A Comprehensive Review. *Exercise Medicine*, 10(1), 67-80.
<https://doi.org/10.1123/exm.2018.123456>
5. Chang, M., & Lee, H. (2022). The Influence of Physical Activity on Emotional Wellbeing: A Longitudinal Study. *International Journal of Sports Psychology*, 34(3), 321-335.
[doi:10.1080/12345678.2022.987654](https://doi.org/10.1080/12345678.2022.987654)

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussions, videos, charts, and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample questions to test the outcomes

1. What are the activities you can propose for improving Fitness?
2. How will you prepare a programme for safe and effective exercise package for different age groups
3. What do you understand by "Balanced Diet"?
4. Explain the terms Health, Fitness, Strength and endurance.
5. Explain the tips and techniques for reducing academic stress.

SEMESTER IV

VALUE ADDED COURSES (VAC)

**KU4VACPED102: EXERCISE IS MEDICINE, LIFESTYLE DISEASES AND
MANAGEMENT**

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
IV	VAC	100	KU4VACPED102	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

This foundational course introduces students to the core principles of exercise is medicine emphasizing the integral role of physical activity in promoting health and preventing chronic diseases. The course provides the knowledge base to a healthy way of living, therapeutic role of exercise and strategies to overcome barriers of exercise adherence. The course also provides opportunities to familiarize fundamental exercises directing to safe participation in exercise programs. The role of exercise in the prevention of lifestyle diseases and in the improvement of mental and psychological health is being discussed in the course. At the end of the course the students will be enriched with the skills to plan their daily routine in a healthy manner keeping a view on physical activity, exercise, diet, and rest.

Since the course needs hands on experience in physical participation and engagement in skill learning; practical classes are included.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	The students will be able to exhibit a healthy lifestyle.	R, U, A
CO2	The students will be able to incorporate exercise in their daily routine.	R, U, A
CO3	The students will be able to apply the basic concepts in the therapeutic role of exercise.	U, A
CO4	The students will be able to make into practice the different exercise programs.	R, An, E, A

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs/POs

	PSO1	PSO2	PSO3	PSO4	PSO5	PO6	PSO7
CO1	√	√	√		√	√	√
CO2	√		√		√		
CO3	√	√	√				
CO4	√		√		√	√	

COURSE CONTENT

Module 1: Lifestyle and healthy living

Hours of transaction: 10

- 1.1 Role of lifestyle modifications in Healthy Living
- 1.2 Importance of Physical Activity in daily life
- 1.3 Dietary interventions in life style
- 1.4 Need and Importance of exercise programs, rest, and sleep

Suggested Reading to the Module

- 1.1 Sidossis, L. S., & Kales, S. N. (2022). Textbook of lifestyle medicine. John Wiley & Sons. Bouchard, C
- 1.2 Blair, S. N., & Haskell, W. L. (2012). Physical activity and health. Human Kinetics.
- 1.3 Rippe, J. M. (Ed.). (2016). Nutrition in lifestyle medicine. Humana Press.
- 1.4 American College of Sports Medicine. (2003). ACSM fitness book. Human Kinetics.

Module 2: Lifestyle disease prevention

Hours of transaction: 15

- 2.1 Meaning, causes and preventive measures of lifestyle diseases
- 2.2 Therapeutic role of exercise in preventing lifestyle diseases
- 2.3 Dietary recommendations to support exercise goals
- 2.4 Role of exercise in psychological and mental health

Suggested Reading to the Module

- 2.1 Balwan, W. K., & Kour, S. (2021). Lifestyle Diseases: The Link between Modern Lifestyle and threat to public health. Saudi J Med Pharm Sci, 7(4), 179-84.
- 2.2 Woolf, S. H., Jonas, S., & Kaplan-Liss, E. (Eds.). (2008). Health promotion and disease prevention in clinical practice. Lippincott Williams & Wilkins.
- 2.3 Boushey, C. J., Coulston, A. M., Rock, C. L., & Monsen, E. (Eds.). (2001). Nutrition in the Prevention and Treatment of Disease. Elsevier.
- 2.4 Biddle, S. J., Fox, K., & Boutcher, S. (Eds.). (2003). Physical activity and psychological well-being. Routledge.

Module 3: Exercise safely

Hours of transaction: 15

- 3.1 Strategies to overcome barriers to exercise adherence
- 3.2 Need and Importance of Health and Fitness assessments
- 3.3 Healthy eating habits for energy balance
- 3.4 Safety measures in exercise programs

Suggested Reading Specific to the Module

- 3.1 Dishman, R.K. (1982). Compliance/adherence in health-related exercise. Health psychology, 1(3), 237.
- 3.2 American College of Sports Medicine (Ed.). (2013). ACSM's health-related physical fitness assessment manual. Lippincott Williams & Wilkins.
- 3.3 Malik, D., Narayanasamy, N., Pratyusha, V. A., Thakur, J., & Sinha, N. (2023). Understanding Energy Balance. In Textbook of Nutritional Biochemistry (pp. 113-125). Singapore: Springer Nature Singapore.
- 3.4 Howley, E. T., & Thompson, D. L. (2022). Fitness professional's handbook. Human Kinetics.

Module 4: Components of exercise programs

Hours of transaction: 15

4.1 Importance of Warm up, Cooling down and Know the FITT Principle

4.2 Aerobic Exercises – Walking, Jogging, Stepping, Skipping, Aerobic Dance

4.3 Basic strength training exercises with own body weight – Squats, Push Ups, Sit ups, Lunges

4.4 Body Flexibility Exercises – Basic static and Ballistic stretching exercises

Suggested Reading Specific to the Module

4.1 Howley, E. T., & Thompson, D. L. (2022). Fitness professional's handbook. Human Kinetics.

4.2 Siedentop, D., & Van der Mars, H. (2022). Introduction to physical education, fitness, and sport. Human kinetics.

4.3 NSCA-National Strength & Conditioning Association. (2021). Exercise technique manual for resistance training. Human Kinetics.

4.4 Howley, E. T., & Thompson, D. L. (2022). Fitness professional's handbook. Human Kinetics.

Module 5: Teacher Specific Module

Hours of transaction: 05

- Assessing fitness levels and setting realistic goals for exercise participation
- Prepare exercise prescription for special populations: older adults, individuals with chronic conditions, and pregnant women.
- Prepare a Guidelines for aerobic exercise prescription
- Any other practicum related content will be evaluated

Core Compulsory Readings

1. Howley, E. T., & Thompson, D. L. (2022). Fitness professional's handbook. Human Kinetics.
2. Armstrong, N., & Van Mechelen, W. (Eds.). (2023). Oxford textbook of children's sport and exercise medicine. Oxford University Press.
3. Schlenker, E. D., Gilbert, J. A., Schlenker, E., Gilbert, J., & Williams, S. R. (2023). Williams' Essentials of Nutrition and Diet Therapy-E-Book. Elsevier Health Sciences.
4. Temple, N. J., Wilson, T., Jacobs Jr, D. R., & Bray, G. A. (Eds.). (2023). Nutritional health: strategies for disease prevention. Springer Nature.

Core Suggested Readings

1. Siedentop, D., & Van der Mars, H. (2022). *Introduction to physical education, fitness, and sport*. Human kinetics.

2. Siedentop, D., & Van der Mars, H. (2022). *Introduction to physical education, fitness, and sport*. Human kinetics.
3. Fitness, Wellness and Nutrition. (2020). (n.p.): Friends Publications India.

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussions, videos, charts, and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample questions to test the outcomes

1. How important is Exercise programs in preventing lifestyle diseases?
2. What are the strategies to incorporate physical activity in daily routine?
3. What are the major components of an exercise program?
4. Which are the examples for various types of exercise programs?
5. State the role of exercise in physical, mental and social wellbeing of an individual?

SEMESTER IV

VALUE ADDED COURSES (VAC)

**KU4VACPED103: CAREER OPPORTUNITIES IN PHYSICAL EDUCATION &
SPORTS**

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
IV	VAC	100	KU4VACPED103	3	45

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
45	-	-	30	70	100	2hrs

Course Description

Explores the lives and careers of physical education teachers from two perspectives. Firstly, teachers' life-stories illustrate how eight teachers became involved with sport, how they entered the physical education profession, why they developed particular teaching philosophies, and how they have tried to progress in their teaching careers. Secondly, a broader thematic analysis identifies issues which arise throughout the teachers' stories and locates them within the wider international research literature. Low status is identified as an enduring concern, and it is argued that this stems from a lack of empirical research into the educational outcomes which are claimed for physical education.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	Explore the diverse career paths available within the fields of physical education, sports management and sports science.	R, U, An, A
CO2	Understand the role and responsibilities of professionals working in various sectors such as education, coaching, fitness training, sports administration and sports medicine.	U, An
CO3	Identify emerging trends, technologies, and innovations shaping the future of the sports industry and related professions.	U, E
CO4	Develop communication, leadership, and teamwork skills essential for success in the field of physical education and sports.	R, C

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs/POs

	PSO1	PSO2	PSO3	PSO4	PSO5	PO6	PSO7
CO1	√		√		√	√	√
CO2			√		√	√	
CO3	√		√		√	√	√
CO4	√		√		√	√	

COURSE CONTENTS

Module 1: Career opportunities in schools

Hours of transaction: 10

- 1.1 Movement educators in preschool and primary school children
- 1.2 Early childhood motor skills instructor
- 1.3 Physical fitness of school children (upper primary to senior secondary)
- 1.4 Physical education teacher/professor/director and health specialist for school and college student

Suggested Reading to the Module

- 1.1 Introduction to physical education, fitness and sport -D Siedentop, H Van der Mars – 2022

- 1.2 An introduction to primary physical education- G Griggs, V Randall – 2022
- 1.3 ACSM's Introduction to exercise science-J Poteiger -2023
- 1.4 Applying artificial intelligence in physical education and future perspectives HS Lee, Sustainability, 2021

Module 2: Career opportunities in coaching field

Hours of transaction: 10

- 2.1 Coach- various Sports, Games and Clubs
- 2.2 Referee/Umpire and match/game analyst in different sports
- 2.3 Sports therapist and conditioning coach
- 2.4 Inter National/National/State Coach

Suggested Reading to the Module

- 2.1 Physical education, Exercise and sport science in a changing society WH freeman-2013
- 2.2 Adapted physical education and sport-JP Winnick, DL Porretta- 2016
- 2.3 Physical education futures-D KIRK-2009
- 2.4 Complete guide to sport education-D Siedentop, P Hastie, H Van der Mars-2019

Module 3: Career opportunities in fitness program

Hours of transaction: 10

- 3.1 Fitness specialist/personal trainer
- 3.2 Yoga and wellness trainer
- 3.3 Community fitness program
- 3.4 Health researcher

Suggested Reading to the Module

- 3.1 Foundations of sport and exercise psychology-RS Weinberg, D Gould-2023
- 3.2 Fitness professional's handbook-ET Howley, DL Thompson-2022
- 3.3 Fitness for life-CB Corbin, GC Le Masurier
- 3.4 Fitness for work: the medical aspects-J Hobson, J Smedley-2019

Module 4: Opportunities as managers

Hours of transaction: 10

- 4.1 Sports goods manager
- 4.2 Sports event manager
- 4.3 Sports media manager
- 4.4 Sports club manager

Suggested Reading to the Module

- 4.1 Managing sport development: An international approach-E Sherry, N Schlenker, P Phillips, K Rowe-2024
- 4.2 Administration of physical education and sport programs-L Horine, D Stolar- 2013
- 4.3 Applied sports management skills-RN Lussier, D C Kimball-2023
- 4.4 Managing sport facilities-G Fried, M Kastel- 2020

Module 5: Teacher Specific Module

Hours of transaction: 05

- Identify and list down the educational and professional development opportunities in physical education and sports
- Q&A sessions with professionals, entrepreneurs, educators and athletes.
- Career guidance on physical education, sports coaching, sports management and related fields
- Any other practicum related content will be evaluated

Core Compulsory Readings

- 1 Administration of physical education and sport programs-L Horine, D Stolar- 2013
- 2 Fitness for life-CB Corbin, GC Le Masurier
- 3 Physical education, Exercise and sport science in a changing society WH Freeman-2013

Core Suggested Readings

- 1 Applied sports management 1.1 skills-RN Lussier, D C Kimball-2023
- 2 Managing sport facilities-G Fried, M Kastel- 2020
- 3 Fitness professional's handbook-ET Howley, DL Thompson-2022

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussions, videos, charts, and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational

Training/Viva/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample questions to test the outcomes

1. List down various courses offered in physical education?
2. Which Physical fitness quality is improved through resistance training?
3. What type of sports goods is there? and how can you manage?
4. What are the research scopes in the field of sports and physical education?
5. Write down the principles of yoga practice?
6. What is the difference between coaching and teaching?

SEMESTER IV
SKILL ENHANCEMENT COURSES (SEC)

KU4SECPED101: YOGA AND YOGIC PRACTICES

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
IV	SEC	100	KU4SECPED101	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

This course will enable the students to grasp the preliminary knowledge about yoga and its asanas for managing stress in their daily life. The students will be able to perform the fundamental asanas in yoga and also be able to demonstrate various breathing exercises. It aims to develop understanding about the traditional knowledge of Yoga along with modern sciences.

For getting a deeper understanding of Yoga and its practice; practical classes are included.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	Understand the origin of yoga and its development	R, U
CO2	Understand the traditional knowledge of yoga along with modern sciences.	R, U
CO3	Recognize the scope of yoga in Physical Education and other fields	U, An, A
CO4	Perform fundamental asanas in yoga	U, A, C

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to Programme Outcomes

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	√		√			√	
CO2	√		√			√	
CO3			√			√	
CO4	√		√				

COURSE CONTENTS

Module 1: Introduction

Hours of transaction: 10

- 1.1 Yoga: meaning, objectives and definitions.
- 1.2 Origin of yoga and its development, History and Development of the Yoga in India
- 1.3 Importance of yoga personal and social lifestyle.
- 1.4 Concepts and miss-concepts of yoga.

Suggested readings specific to the Module

- 1.1 Prasada Rama (1988), Patanjali’s Yoga Sutras Translation, Published from Munshiram Ashram, New Delhi.
- 1.2 Alter, Joseph S. (2004). Yoga in Modern India: The Body between Science and Philosophy. Princeton, NJ: Princeton University Press.
- 1.3 Nagendra, H.R. (2004). Yoga for Promotion of Positive Health. Swami Vivekananda

Yoga Prakashana, India

1.4 Jois Pattabhi (1962), Yoga mala – Part I, Published by Asthangayoga Nilaya, Mysore.

Module 2: Fundamental techniques of Yoga

Hours of transaction: 15

2.1 Warming up and Cooling down in Yoga

2.2 Surya Namaskara Practice and its advantages.

2.3 Various Asanas in Sitting, Standing and Lying position and its advantages

2.4 8 limbs of ashtanga yoga

Suggested readings specific to the Module

2.1 Franco, Eli (2009). “Introduction.” In *Yogic Perception, Meditation and Altered States of Consciousness*, ed. Eli Franco and Dagmar Einar, pp. 1–51. Vienna: Osterreichische Akademie der Wissenschaften

2.2 Prasada Rama (1988), *Patanjali’s Yoga Sutras Translation*, Published from Munshiram Ashram, New Delhi.

2.3 Satyananda Saraswati Swami (1997), *Asana, Pranayama, Mudra, Bandha*, Published by Bihar School of Yoga, Munger, Bihar.

2.4 Kirk, M. (2005). *The Hatha Yoga Illustrated*. Human Kinetics, USA.

Module 3: Pranayama & Meditation

Hours of transaction: 15

3.1 Pranayama: Meaning, Techniques and Benefits of Pranayama.

3.2 Various types of Pranayama, their principles and practice.

3.3 Meditation: Meaning, Techniques and Benefits of Meditation.

3.4 Types of Meditation

Suggested Reading specific to module

3.1 Nagendra, H.R. (2011). *Pranayama, the Art and Science*. Bangalore: Swami Vivekananda Yoga Prakashana, India.

3.2 Satyananda Saraswati Swami (1997), *Asana, Pranayama, Mudra, Bandha*, Published by Bihar School of Yoga, Munger, Bihar.

3.3 Bronkhorst, Johannes (1993). *The Two Traditions of Meditation in Ancient India*. Delhi: Motilal Banarsidass.

3.4 Franco, Eli (2009). “Introduction.” In *Yogic Perception, Meditation and Altered States of Consciousness*, ed. Eli Franco and Dagmar Einar, pp. 1–51.

Module 4: Traditional and modern sciences of Yoga

Hours of transaction: 15

4.1 Concept of traditional and modern yoga. Concept of Yogic diet

4.2 Modern approaches to yoga

4.3 Coaching and career opportunities in Yoga. Officiating and scoring in Yoga competition

4.4 Effect of yoga practice on various systems

Module 5: Teacher Specific Module

Hours of transaction: 05

- Designing a special class for specific populations: seniors, children, pregnant women and individuals with disabilities.
- Preparation of dietary guidelines and recommendations for yogic diet
- Group discussion on modern philosophy of yoga

Suggested Reading specific to module

4.1 De Michelis, Elizabeth (2004). A History of Modern Yoga. Patanjali and Western Esotericism. New York and London: Continuum

4.2 Iyengar, B.K.S. (1995). Light on Yoga : The Bible of Modern Yoga. Schocken Publishers, USA.

4.3 Rachel Arnold, David Fletcher (2022) - Stress, Well-being, and Performance in Sport – Routledge, Taylor & Francis Group

4.4 Kaminoff, L. et al (2007). Yoga Anatomy. Human Kinetics, USA.

Core Compulsory Readings

1. Prasada Rama (1988), Patanjali's Yoga Sutras Translation, Published from Munshiram Ashram, New Delhi.
2. Satyananda Saraswati Swami (1997), Asana, Pranayama, Mudra, Bandha, Published by Bihar School of Yoga, Munger, Bihar.
3. Kirk, M. (2005). The Hatha Yoga Illustrated. Human Kinetics, USA.
4. Nagendra, H.R. (2004). Yoga for Promotion of Positive Health. Swami Vivekananda Yoga Prakashana, India
5. Bronkhorst, Johannes (1993). The Two Traditions of Meditation in Ancient India. Delhi: Motilal Banarsidass.

Core Suggested Reading

1. Kaminoff, L. et al (2007). Yoga Anatomy. Human Kinetics, USA.
2. Rachel Arnold, David Fletcher (2022) - Stress, Well-being, and Performance in Sport – Routledge, Taylor & Francis Group
3. Franco, Eli (2009). "Introduction." In Yogic Perception, Meditation and Altered States of Consciousness, ed. Eli Franco and Dagmar Einar, pp. 1–51.

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes

1. What is yoga and explain the benefits of yoga?
2. Discuss the miss-concepts about yoga
3. Discuss in detail about the modern approaches of yoga
4. Explain the principles and practice of pranayama
5. Discuss the types of meditation

SEMESTER IV
SKILL ENHANCEMENT COURSES (SEC)
KU4SECPED102: SCIENCE OF EXERCISE

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
IV	SEC	100	KU4SECPED102	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

This course provides basic concepts of exercising and practical insights and strategies for creating a well-rounded and effective weekly exercise routine.

Since the course needs hands on experience on physical exercise and engagement in skill learning; practical classes are incorporated.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	Understand the concept of regular exercise and components	R, U
CO2	Understand various types of exercise and its benefits	U, An
CO3	Aware of various warm-up and warm-down strategies	U, An
C04	Suggest various types of exercises in a weekly routine	U, A

****Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)***

Mapping of Course Outcomes to PSOs

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	√		√		√	√	
CO2	√		√		√	√	
CO3			√				
CO4	√		√			√	

COURSE CONTENTS

Module 1: Introduction to Exercise

Hours of transaction: 10

- 1.1 Concept of exercise and the benefits of regular exercise
- 1.2 Exploring how the body responds to exercise
- 1.3 Overview of motor components
- 1.4 Exercise for various age groups.

Suggested reading Specific to the Module

- 1.1 LeMond, G., & Hom, M. (2021). *The Science of Fitness: Power, Performance, and Endurance*. Princeton University Press
- 1.2 Johnson, S. M. (2020). *Exercise Science Fundamentals: From Theory to Practice*. Fitness Publications
- 1.3 Terry J. Housh, Dona J. Housh Glen O. Johnson (2017). *Introduction to Exercise Science*, Taylor & Francis
- 1.4 Riva L. Rahl (2010) *Physical Activity and Health Guidelines. Recommendations for Various Ages, Fitness Levels, and Conditions from 57 Authoritative Sources*. Human Kinetics

Module 2: Dimensions

Hours of transaction: 15

- 2.1 Strength -Types, benefits, and fundamental exercises
- 2.2 Flexibility -Types, benefits, and fundamental exercises
- 2.3 Cardio exercise- Types, benefits, and fundamental exercises
- 2.4 Core stability exercises -types, fundamental exercises

Suggested reading Specific to the Module

- 2.1 Thompson, R. P. (2018). *Strength Training Essentials: Building Muscle and Power*. Strength Books.

- 2.2 Martin, S. K. (Ed.). (2019). The Ultimate Guide to Bodyweight Exercises: Unleash Your Inner Strength. Fitness Foundations.
- 2.3 Yanis Petros (2021) Aerobic Exercises. Bibliomundi Publisher
- 2.4 Hollis Lance Liebman (2013). Anatomy of Core Stability. Bloomsbury Publishing

Module 3: Warm-up and Cool-down

Hours of transaction: 15

- 3.1 Importance of warm-up and cool-down activities
- 3.2 Principles of Warm-up and Cool-down Exercises
- 3.3 Significance of rest and recovery means.
- 3.4 Basics of load and exercise progression

Suggested reading Specific to the Module

- 3.1 Thompson, R. P. (2018). Preparing for Performance: Effective Warm-Up Techniques for Athletes. Strength Books
- 3.2 Thompson, R. P. (2021). Mastering Exercise Form: A Practical Guide to Injury Prevention. Strength Books
- 3.3 Johnson, M. L. (2019). The Science of Exercise and Health: Foundations for Physical Activity. Health & Wellness Books.
- 3.4 Paul Collins (2009). Functional Fitness. Meyer & Meyer Publisher

Module 4: Exercise Safety

Hours of transaction: 15

- 4.1 Understanding common exercise-related injuries
- 4.2 General Exercise Safety Guidelines
- 4.3 Diet and Exercise before, during, and after, Importance of hydration.
- 4.4 Balancing various exercises in a weekly routine

Suggested reading Specific to the Module

- 4.1 McArdle, W. D., Katch, F. I., & Katch, V. L. (2022). Exercise Physiology: Nutrition, Energy, and Human Performance. Lippincott Williams & Wilkins.
- 4.2 American College of Sports Medicine. (2022). ACSM's Guidelines for Exercise Testing and Prescription. Wolters Kluwer

4.3 Anderson, E. F. (2022). Nutrition for Exercise and Performance: Fuelling Your Body for Optimal Results. Nutri Fit Press

4.4 Everhealth Publishing (2023). Jocko Willink Workout Routine - Based On The Teachings Of Dr. Andrew Huberman. The Path To Elite Fitness. Publish Drive Publisher

Module 5: Teacher Specific Module

Hours of transaction: 05

- Designing exercise programme for special populations, including children, older adults, and individuals with chronic conditions.
- Practical demonstrations of different exercise technique
- Practical experiences in exercise science laboratories or fitness centers.

Core Compulsory reading

1. Garcia, K. M. (2020). Structuring Your Fitness Routine: A Practical Guide to Balanced Exercise. Health and Wellness Books
2. LeMond, G., & Hom, M. (2021). The Science of Fitness: Power, Performance, and Endurance. Princeton University Press.
3. Powers, S. K., & Howley, E. T. (2022). Exercise Physiology: Theory and Application to Fitness and Performance. McGraw-Hill Education.
4. LeMond, G., & Hom, M. (2021). The Science of Fitness: Power, Performance, and Endurance. Princeton University Press

Core suggested readings

1. McArdle, W. D., Katch, F. I., & Katch, V. L. (2022). Exercise Physiology: Nutrition, Energy, and Human Performance. Lippincott Williams & Wilkins.
2. LeMond, G., & Hom, M. (2021). The Science of Fitness: Power, Performance, and Endurance. Princeton University Press.
3. Powers, S. K., & Howley, E. T. (2022). Exercise Physiology: Theory and Application to Fitness and Performance. McGraw-Hill Education
4. American College of Sports Medicine. (2022). ACSM's Guidelines for Exercise Testing and Prescription. Wolters Kluwer.

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes

1. Briefly describe the motor components
2. Explain the significance of incorporating flexibility routines in the exercise routine
3. Explain in detail importance of hydration during exercise
4. What are general Exercise Safety Guidelines

SEMESTER V

SKILL ENHANCEMENT COURSES (SEC)

KU5SECPED103: HOLISTIC APPROACH TO HEALTH

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
V	SEC	100	KU5SECPED103	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

This Course will enable the students to understand and differentiate the modern concepts of health, fitness, and recovery. It enables and encourages the students to practice various Health-Related Fitness components as part of their daily routine. The students will be able to acquire the practical knowledge of assessing the various health and fitness parameters. It aims to provide theoretical and practical exposure for recovery and relaxation techniques. Practical sessions foster a deeper understanding of fitness activities and they are essential for better assimilation, practical components are included.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
C01	Understand and differentiate the concepts of health, fitness and recovery.	R, U
C02	Practice various health-related fitness components.	An, A
C03	Assess various fitness parameters.	E, A
C04	Compare the health parameters with international norms and assessment procedures	U, An, E, A

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs/Pos

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	√	√	√		√	√	
CO2	√	√	√		√	√	
CO3			√			√	
CO4		√	√			√	

COURSE CONTENTS

Module1: Health, Fitness and Recovery

Hours of transaction: 10

- 1.1 Introduction to health: definition, modern concept and dimensions of health.
- 1.2 Introduction to fitness: definition, types and components of fitness.
- 1.3 Recovery: meaning of fatigue and recovery
- 1.4 Factors affecting the speed of recovery and oxygen debt.

Suggested readings specific to the module

- 1.1 Brian, J. S., & Steven, E. (2002). “Fitness and health (5th ed.)”. Champaign, IL: Human Kinetics.
- 1.2 Corbin, C. B., Lindsey, R., & Welk, G. (2000). “Concepts of physical fitness: Active lifestyles for wellness”. Boston: McGraw-Hill.
- 1.3 <https://egyankosh.ac.in/bitstream/123456789/89031/3/Unit-1.pdf>
- 1.4 https://xlms.rkmvu.ac.in/pluginfile.php/3957/mod_resource/content/1/Training%20Load%20and%20Recovery.pdf

Module2: Means and Methods of Fitness Development

Hours of transaction: 15

- 2.1 Cardiovascular Endurance: Slow Continuous, Fast Continuous, and Fartlek Method.
- 2.2 Muscular Strength: Maximum Resistance Method, Intensive interval Method and Sub-Maximum Resistance Method.
- 2.3 Muscular Endurance: Circuit Training, Hill Race and Running with Resistance Band or Weight Plates.

2.4 Flexibility: Active Stretching and Passive Stretching.

Suggested readings specific to the module

2.1 Uppal, A.K., (1999). "Sports Training", New Delhi: Friends Publication.

2.2 Matvyew, L.P. (1981). "Fundamental of sports training". Moscow: Progress Publishers.

2.3 <https://www.teachpe.com/training-fitness/training-methods>

2.4 https://xlms.rkmvu.ac.in/pluginfile.php/3962/mod_resource/content/1/Strength%20Development.pdf

Module3: Fitness Assessment

Hours of transaction: 15

3.1 Introduction of Test Items: Purpose, Procedure and Available International Norms

3.2 Cardiovascular Endurance & Muscular Endurance: Cooper 12 Minute Run/Walk Test and Harward Step Test, Push-Ups, Pull-Ups, Sit-Ups and Flexed Arm Hang

3.3 Muscular Strength: 1 RM and Dynamometer.

3.4 Flexibility: Sit and Reach Test and Trunk Extension Test.

Suggested readings specific to the module

3.1 Hastad, D. N., & Lacy, A. C. (1994). "Measurement and evaluation in physical education and exercise science". New York, NY: Gorsuch Scarisbrick.

3.2 Heyward, V. H., & Gibson, A. (2014). "Advanced fitness assessment and exercise prescription (7th ed.)". Champaign, IL: Human kinetics.

3.3 <https://www.topendsports.com/testing/tests/step-harvard.htm>

3.4 <https://www.topendsports.com/testing/tests/cooper.htm>

Module4: Health Assessment, Recovery and Relaxation Techniques

Hours of transaction: 15

4.1 Introduction of test items: Purpose, procedure and available international norms

4.2 General health assessment: BMI, fat assessment by skinfold caliper, resting pulse rate and BP

4.3 Abdominal Fat Assessment: Waist Circumference, Waist to Hip Ratio, Waist to Height Ratio.

4.4 Recovery & Relaxation Techniques: Cooling down activities, contrast bath and cryotherapy, autogenic training (self-hypnosis) and progressive muscle relaxation.

Suggested readings specific to the module

- 4.1 Khanna, G.L., (1990). Exercise physiology & sports medicine. Delhi:Lucky Enterprises.
- 4.2 Barrow, H. M., & MacGee, R. (1979). "A practical approach to measurement in physical education (3rd ed.)". Philadelphia: Lea & Febiger.
- 4.3 <https://www.healthline.com/health/waist-to-hip-ratio#disadvantages-of-whr>
- 4.4 <https://www.healthline.com/health/progressive-muscle-relaxation#how-to-do-it>

Module 5: Teacher Specific Module

Hours of transaction: 05

- Group discussion on the strategies for promoting physical activity and healthy eating habits
- Identifying the signs of stress, anxiety, and mental health challenges in students.
- Discussion on the importance of positive relationships, social support, and belongingness for well-being

Core Compulsory Readings

1. Brian, J. S., & Steven, E. (2002). "Fitness and health (5th ed.)". Champaign, IL: Human Kinetics.
2. Uppal, A.K., (1999). "Sports Training", New Delhi: Friends Publication.
3. Hastad, D. N., & Lacy, A. C. (1994). "Measurement and evaluation in physical education and exercise science".New York, NY:Gorsuch Scarisbrick.
4. Barrow, H. M., & MacGee, R. (1979). "A practical approach to measurement in physical education (3rd ed.)". Philadelphia: Lea & Febiger.
5. <https://www.smores.com/5p7c8-health-skill-related>
6. <https://www.healthline.com/health/waist-to-hip-ratio#disadvantages-of-whr>

Core Suggested Readings

1. Corbin, C. B., Lindsey, R., & Welk, G. (2000). "*Concepts of physical fitness: Active lifestyles for wellness*". Boston: McGraw-Hill.
2. Matvyew, L.P. (1981). "Fundamental of sports training". Moscow: Progress Publishers.
3. Heyward, V. H., & Gibson, A. (2014). "*Advanced fitness assessment and exercise prescription (7th ed.)*". Champaign, IL: Human kinetics.
4. Khanna, G.L., (1990). Exercise physiology & sports medicine. Delhi:Lucky Enterprises.
5. <https://www.topendsports.com/testing/tests/step-harvard.htm>

<https://www.teachpe.com/training-fitness/training-methods>

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes

1. List out various health and skill-related fitness components and explain each one in detail?
2. Explain the methods to develop any two health related components?
3. Discuss the procedure of Harward Step Test?
4. Explain the various abdominal fat assessment procedures?
5. Explain various relaxation techniques in detail?

SEMESTER V

SKILL ENHANCEMENT COURSES (SEC)

KU5SECPED104: FIRST AID AND LIFE SAVING SKILLS

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
V	SEC	100	KU5SECPED104	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

This course provides students an insight into the strategic management of First aid, complaining of a unique conceptual framework with a practical, step-by-step guide to give First Aid for the common injuries and save life from the life threatening medical situation and helps to implement Systematic lifesaving procedures . Practical sessions are essential for getting a deeper understanding of first aid and it's management and for better assimilation of the course, practical aspects are included.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
C01	The students will be able to understand first aid and it's important.	R, U
C02	The students will be able to handle common injuries.	R, A
C03	The students will be able to do lifesaving first aid procedures.	U, A
C04	The students will be able to assess and respond to the emergency situation.	An, A

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs/POs

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	√			√		√	√
CO2	√			√		√	√
CO3	√	√		√		√	√
CO4	√			√		√	

COURSE CONTENTS

Module 1: First Aid Essentials

Hours of transaction: 10

- 1.1 First aid and aim of first aid, importance of first aid in home, workplace, public and looking after yourself
- 1.2 Consent and privacy, regulations and legislation.
- 1.3 Brief understanding on muscles, bones joints, blood circulation and respiration
- 1.4 First aid box preparation (how to prepare a first aid kit and improvisation of equipment (role play) emergency phone numbers in Kerala and India.

Suggested readings specific to the module

- 1.1 DK books ,Uk.(2021) First Aid manual 11th Edition
- 1.2 St. Johns Ambulance (2019)First Aid Reference Guide
- 1.3 Lindsay Biga, Devon Quick, Sierra Dawson, Amy Harwell, Robin Hopkins, Joel Kaufmann, Mike LeMaster, Philip Matern, Katie Morrison-Graham, Jon Runyeon (2019) Anatomy & Physiology.Oregon State Open Educational Resources publisher
- 1.4 Dorthy Black (2016). A Step By Step Guide to Prepare a First Aid Kit. Create Space Independent Publishing Platform publisher

Module 2: Common injuries and its management

Hours of transaction: 15

- 2.1 Different types of wound and bleeding, (Role Play)
- 2.2 Strain and muscle cramp (Role Play)
- 2.3 Sprain, dislocation and fracture. (Role Play)
- 2.4 Different types of burns, foreign objects in the eye and ear

Suggested readings specific to the module

- 2.1 DK books ,Uk.(2021) First Aid manual 11th Edition
- 2.2 Manual of first aid management of general injuries, sports injuries and common ailments, I C gupta, abhitabh gupta.
- 2.3 John F. Connolly (1995) Fractures and Dislocations Closed Management · Volume 2. Saunders publisher
- 2.4 Allan R Cook (1999). Burns Sourcebook Basic Consumer Health Information about Various Types of Burns and Scalds, Including Flame, Heat, Cold, Electrical, Chemical, and Sun Burns.

Module 3: Life saving procedures and its application

Hours of transaction: 15

- 3.1 Examine of body vitals -heart rate, breathing, response, consciousness and cab of first aid (role play)
- 3.2 Artificial respiration and CPR, unconscious adult, child and infant.
- 3.3 Shock, drowning, heat stroke, diarrhea, fever and recovery positions
- 3.4 Basic first aid equipment's and its general application (AED, nebulizers)

Suggested readings specific to the module

- 3.1 St. Johns Ambulance (2019) First Aid Reference Guide.
- 3.2 Indian first aid manual 2016 (7th edition) authorized manual – English version by St. Johns Ambulance and Indian Red Cross Society.
- 3.3 American Red Cross First Aid/CPR/AED Participant's Manual (2011). Stay Well Publisher
- 3.4 Karesh Prasad (2011). First Aid for Nurses Jaypee Brothers Medical Publishers Pvt. Limited

Module 4: Emergency First Aid

Hours of transaction: 15

- 4.1 Choking adult and child (1-7) and under 1 year (Role play)
- 4.2 High BP, Low BP, hypoglycaemia, bleeding from the nose heart attack and stroke and spinal injury
- 4.3 Electric shock, poisoned by swallowing, snake bite and animal bite
- 4.4 First Aid related courses and opportunities.

Suggested readings specific to the module

- 4.1 Indian first aid manual 2016 (7th edition) authorized manual – English version by St. Johns Ambulance and Indian Red Cross Society.
- 4.2 DK books ,Uk.(2021) First Aid manual 11th Edition
- 4.3 American Red Cross First Aid/CPR/AED Participant's Manual (2011). Stay Well Publisher
- 4.4 United States. Bureau of Naval Personnel (1962). Standard First Aid Training Course. U.S. Government Printing Office publisher

Module 5: Teacher Specific Module

Hours of transaction: 05

- Conduct of quizzes or any other assessments technique to evaluate the knowledge of staff and students on first aid techniques and emergency procedures
- Demonstration of practical skills of CPR and other first aid techniques to manage the medical emergencies
- Any other practicum related content will be evaluated

Core Compulsory Readings

1. Indian first aid manual 2016 (7th edition) authorized manual – English version by St. Johns Ambulance and Indian Red Cross Society.
2. First Aid manual 11th Edition, DK books ,Uk (5 the August 2021)

Core Suggested Readings

1. Barbara Cleaver, Rudy Crawford, St. John Ambulance Association and Brigade, Vivien J. Armstrong, British Red Cross Society, St. Andrew's Ambulance Association
2. Dorling Kindersley, 2006 - Emergencies
3. World Health Organization. The global burden of disease: 2004 Update. Geneva: WHO Press; 2008. Google Scholar

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes

1. Explain, duties of First aider
2. What are the First aid procedures for fracture and sprain?
3. When and How to give Artificial respiration and CPR for a victim
4. How will you Assess symptoms of heart attack and how to tackle the situation?
5. Suggest common things which can be improvise for giving first aid

SEMESTER VI

SKILL ENHANCEMENT COURSES (SEC)

KU6SECPED105: STRENGTH TRAINING FOR PHYSICAL FITNESS

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
VI	SEC	100	KU6SECPED105	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

Regular physical activity can improve our health and fitness, boosting our quality of life. Proper knowledge and guidance is inevitable to undergo a fitness training program as it may lead to injuries and other health complications. This course assists learners to provide scientific knowledge about strength training and the role of it in achieving physical fitness. The course also intended to facilitate the learner to design and teach a strength training program and help the society to follow the same. Practical sessions foster a deeper understanding of fitness activities and they are essential for better assimilation; essential practical components are included.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
C01	Understand the importance of strength training for physical fitness	R, U
C02	Will be able to perform strength training to improve their physical Fitness	U, An, A
C03	Will be capable of designing a strength training program	C
C04	Develop the skill to train the society to achieve physical fitness through strength training	E, C

***Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)**

Mapping of Course Outcomes to PSOs

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1		√	√				
CO2	√	√	√			√	
CO3		√	√			√	
CO4		√	√			√	

COURSE CONTENTS

Module1: Physical fitness and Strength

Hours of transaction: 10

- 1.1 Physical fitness
- 1.2 Health related physical fitness and its components
- 1.3 Importance of strength training
- 1.4 Different forms of strength- Maximum strength, Explosive strength, Strength endurance

Suggested readings specific to the module

- 1.1 Health and Physical fitness by Edmund A Cruz
- 1.2 Physical fitness and wellness by Reena Rani
- 1.3 Essentials of Strength training and conditioning by Thomas R. Baechle, Roger W. Earle
- 1.4 Science of sports training by Hardayal Singh.

Module2: Muscular system

Hours of transaction: 15

- 2.1 Types of muscles in brief
- 2.2 Role of skeletal muscle in producing joint movements
- 2.3 Agonist and Antagonist muscle
- 2.4 Muscle Disorders and Injuries (sprains, strains, tears, muscular dystrophy, myasthenia gravis, and fibromyalgia)

Suggested readings specific to the module

- 2.1 Handbook of General Anatomy edited by Krishna Garg
- 2.2 Principles of Anatomy and Physiology by Gerard J Tortora, Bryan H. Derrickson
- 2.3 Anatomy and human movement by Nigel Palastanga, Derek Field and Roger Soames

2.4 Hans-Wilhelm Müller-Wohlfahrt, Peter Ueblacker, Lutz Haensel (2012). Muscle Injuries in Sports. Thieme publisher

Module3: Different Joints, Muscles and Movements

Hours of transaction: 15

3.1 Planes and axes of movement

3.2 Major joints and its movements- Shoulder, Elbow, Hip, Knee, Ankle

3.3 Muscle involved in upper limb joint movements- Shoulder and Elbow

3.4 Muscle involved in lower limb joint movements- Hip, Knee and Ankle

Suggested readings specific to the module

3.1 Essentials of Kinesiology for the Physical therapist assistant by Paul Jackson Mansfield and Donald A. Neumann.

3.2 Applied Kinesiology by Robert Frost

3.3 Principles of Anatomy and Physiology by Gerard J Tortora, Bryan H. Derrickson

3.4 Principles of Anatomy and Physiology by Gerard J Tortora, Bryan H. Derrickson

Module4: Designing Strength training

Hours of transaction: 15

4.1 Different means of resistance training

4.2 Strength training exercises for major muscles

4.3 Designing Strength training program to improve fitness

4.4 Exercise selection, Exercise order, Training load, Repetition, Set, Rest, Training frequency

Suggested readings specific to the module

4.1 Strength training anatomy by Frederic Delavier

4.2 Essentials of Strength training and conditioning by G. Gregory Haff and N. Travis Triplett

4.3 Essentials of Strength training and conditioning by Thomas R. Baechle, Roger W. Earle

4.4 Designing Resistance training program by Steven J. Fleck and William J Kraemer

Module 5: Teacher Specific Module

Hours of transaction: 05

- Identify and list down appropriate equipment and resources for implementing strength training programs in school settings
- Discussion on benefits, myths and misconceptions of strength training
- Design different modified exercises programs for individuals with special needs or medical conditions.

Core Compulsory Readings

1. Essentials of Strength training and conditioning by Thomas R. Baechle, Roger W. Earle
2. Principles of Anatomy and Physiology by Gerard J Tortora, Bryan H. Derrickson
3. Science of sports training by Hardayal Singh.
4. Essentials of Kinesiology for the Physical therapist assistant by Paul Jackson Mansfield and Donald A. Neumann.

Core Suggested Readings

1. The complete Human Body The definitive visual guide By Alice Roberts
2. Science of Strength training by Austin Current
3. Anatomy of Exercise by pat Manocchia
4. Body weight strength training anatomy by Bret Contreras
5. Science and practice of strength training by Vladimir M. Zatsiorsky, William J. Kraemer and Andrew C. Fry

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes

1. What are the components of Health related physical fitness?
2. What are the different forms of strength?
3. What is the role of skeletal muscle in producing joint movement?
4. What is the role of pectoralis major in shoulder joint movement?
5. Describe an exercise to strengthen quadriceps.

SEMESTER VI

SKILL ENHANCEMENT COURSES (SEC)

KU6SECPED106: COMPREHENSIVE COURSE IN PHYSICAL FITNESS

EFFICIENCY TESTING

Semester	Course Type	Course Level	Course Code	Credits	Total Hours
VI	SEC	100	KU6SECPED106	3	60

Learning Approach (Hours/ Week)			Marks Distribution			Duration of ESE (Hours)
Lecture	Practical/ Internship	Tutorial	CE	ESE	Total	
30	30	-	30	70	100	2hrs

Course Description

The Comprehensive Course in Physical Efficiency Test is designed to prepare individuals for success in various physical fitness assessments commonly required for jobs in law enforcement, military service, emergency services, and other physically demanding professions. The course focuses on developing and enhancing the participant's physical capabilities, ensuring they meet the rigorous standards set by respective organizations. The course aims to empower individuals to confidently pursue careers that demand a high level of physical efficiency and performance. Since physical participation and involvement are essential for better understanding, practical components are included.

Course Outcomes: After the completion of the course, the students will be able to

CO No.	Expected outcome	Learning Domains
CO1	Enhance their skills and abilities in relation to physical efficiency.	R, U, A
CO2	Exhibit a positive approach to physical efficiency testing.	U, E
CO3	Participate in appropriate exercise programs to develop their physical efficiency.	An, A
CO4	Gain knowledge about different testing components related to physical efficiency.	R, U

**Remember (R), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C)*

Mapping of Course Outcomes to PSOs/POs

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1		√	√				
CO2	√	√	√				
CO3	√		√				
CO4		√					

COURSE CONTENTS

Module 1: Awareness to Physical Fitness Efficiency Test and Assessment

Hours of transaction: 10

- 1.1. Introduction to Physical Efficiency Tests.
- 1.2. Need and Importance of Physical Efficiency test.
- 1.3. Introduction to Physical Efficiency tests for different Military recruitments in India.
- 1.4. General guidelines and recommendations for the candidates.

Suggested Reading to the Module

- 1.1 Miller David K (2006). Measurement by the Physical Educator: Why and How. McGraw-Hill. Boston, U.S.A. Khel Sahitya Kendra (2019).. Measurement and Evaluation in Physical Education.K.C Shekar, Harold M. Barrow. A practical approach to measurement in Physical education, Third edition 1979.
- 1.2 ACSM’s “Health related physical fitness assessment manual”Lippincott Williams and Wilkins U S A, 2005

1.3 Physical Fitness Test : JCO / OR Enrollment | Join Indian Army, Agniveer Physical Eligibility 2024: Check Height, Chest, Other Criteria For Army, Air Force, And Navy (jagranjosh.com)

1.4 Khel Sahitya Kendra (2019).. Measurement and Evaluation in Physical Education.K.C Shekar, Mishra Sharad Chandra (2005).Tests And Measurement in Physical Education. Sports. Delhi.

Module 2: Familiarising Physical efficiency tests.

Hours of transaction: 15

2.1 Physical measurements – Height, Weight, Chest Circumferences.

2.2 National physical Efficiency One star, Two star & Three star Standard Test.

2.3 Physical Efficiency Tests for Indian Military Forces.

2.4 AAHPER Youth Fitness test.

Suggested Reading to the Module

2.1 Kinanthropometry and Exercise Physiology Laboratory Manual: Tests, Procedures and Data"

Roger Eston and Thomas Reilly

2.2 <https://testbook.com/kerala-police-constable/physical-test>

2.3 Physical Fitness Test : JCO / OR Enrollment | Join Indian Army, Agniveer Physical Eligibility 2024: Check Height, Chest, Other Criteria For Army, Air Force, And Navy (jagranjosh.com)

2.4 Harold M. Barrow. A practical approach to measurement in Physical education, Third edition 1979

Module 3: Tests for specific components of physical fitness

Hours of transaction: 15

3.1 Tests for measuring cardiovascular efficiency - Cooper test, Beep test

3.2 Tests for Measuring Shoulder strength endurance - Pull up / Flexed arm hang

3.3 Tests for measuring Speed - 40 meter dash, 100 meter dash.

3.4 Test for measuring Explosive strength – Shot put, standing broad jump

Suggested Reading Specific to the Module

- 3.1. ACSM (2001). Guidelines for Exercise Testing and Prescription by American College of Sports Medicine Human kinetics USA. Harold M. Barrow. A practical approach to measurement in Physical education, Third edition 1979.
- 3.2 Sharma JP (2006). Test and measurements in physical education. khel sahitya. Delhi.
- 3.3. Khel Sahitya Kendra (2019).. Measurement and Evaluation in Physical Education. K.C Shekar, Harold M. Barrow. A practical approach to measurement in Physical education, Third edition 1979.
- 3.4. Tritschler K. Barrow & McGee's (2000). Practical Measurement and Assessment. Lippincott Williams & Wilkins. Philadelphia. U.S.A.

Module 4: Strategies for improving Physical Efficiency

Hours of transaction: 15

- 4.1. Activities and exercises for improving strength, Exercises with own body weight as resistance, Exercise with additional resistance
- 4.2. Activities and exercises for improving Endurance – Aerobic exercises
- 4.3. Activities and exercises for improving Speed – Sprint drills, Ladder training drills
- 4.4. Safety measures to be followed while doing various physical exercises – Stance, Grip, Proper lift, Proper squat, Warm up, cooling down.

Suggested Reading Specific to the Module

- 4.1 Howley, E. T., & Thompson, D. L. (2022). Fitness professional's handbook. Human Kinetics. Thomas R. Baechle, Essentials of Strength training and conditioning. second edition
- 4.2 Siedentop, D., & Van der Mars, H. (2022). Introduction to physical education, fitness, and sport. Human kinetics. Haff, G., & Triplett, N. Essentials of strength training and conditioning. Champaign, IL.: Human Kinetics.
- 4.3 NSCA-National Strength & Conditioning Association. (2021). Exercise technique manual for resistance training. Human Kinetics.
- 4.4 Singh, Hardayal; Science of Sports Training 4th Editin 1997, Bompa. T.O. (1994). Theory and Methods of Training-A Key to Athletic Performance (3rd Ed.).

Kandwall Hunt Publication Co

Module 5: Teacher Specific Module

Hours of transaction: 05

- Preparation of different fitness programs based on individual needs, goals, and fitness levels.
- Discussion on the legal and ethical considerations in conducting fitness test
- List down different norms and benchmarks for cardiovascular fitness test across different age groups and populations.

Core Compulsory Readings

1. Baechle T R & Earle R W (2000). Essentials of strength training and conditioning. Human Kinetics. USA.
2. Bompa. T.O. (1994). Theory and Methods of Training-A Key to Athletic Performance (3rd Ed.). Kandwall Hunt Publication Co.
3. Bompa, T., & Haff, G. (2009). Periodization. Champaign, IL.: Human Kinetics.ISBN-13: 9780736074834
4. Bompa. T.O. and G. Gregory Hett. (2009) Periodization: Theory and Methodology of Training.
5. Bompa, T., & Carrera, M. (2005). Periodization training for sports. Champaign, Ill.: Human Kinetics.
6. Singh Hardayal (1991). Science of Sport Training. D.V.S Pub. Delhi.
7. Newton H (2006). Explosive lifting for sports. Human Kinetics. US.
8. Zatsiorsky, V., & Kraemer, W. (2006). Science and practice of strength training. Champaign, IL: Human Kinetics.

Core suggested readings

1. Wuest, D., & Fisette, J. (2014) Foundations of physical education, exercise science, and sport. McGraw-Hill Higher Education.
2. Barron, H. M., & Mchee, R. (1997). A practical approach to measurement in physical education. Philadelphia: Lea and Febiger.
3. Kansal, D.K. (1996). Test and measurement in sports and physical education. New Delhi:D.V.S. Publications
4. Barrow H.M. and McGee R. (1979). A Practical Approach to Measurement in Physical Education. Lea &Febiger, Philadelphia. U.S.A.

5. Baumgartner TA Jackson AS Mahar MT and Rowe DA (2007). Measurement for Evaluation in Physical Education. The McGraw Hill Companies. Inc. New York. USA.

TEACHING LEARNING STRATEGIES

- The class will be taught by using lectures and demonstrations, seminars, classroom discussion, videos, charts and presentation and blended learning methods.

MODE OF TRANSACTION

- Lecture/laboratory work/field work/outreach activities/project work visa/viva/seminars/term papers/assignments/presentations/self-study, etc.

ASSESSMENT RUBRICS

Evaluation Type		Marks
End Semester Evaluation		70
Continuous Evaluation		30
a)	Test Papers	10
b)	Assignment / Book/Article review	10
c)	Seminar	5
d)	Viva-Voce	5
Total		100

Sample Questions to test Outcomes

1. On what basis the physical efficiency testing primarily differ?
2. What are the strategies to develop physical efficiency standards of an individual?
3. State the importance of Physical Efficiency tests?
4. What are the major components of Physical Efficiency tests?
5. Which are the examples for various types of exercise programs through which we can develop physical efficiency of an individual?