



University of Kerala

Four Year Under Graduate Programme (UoK FYUGP)

Syllabus

Discipline :
Physical Education and Sports Sciences

May 2024

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Preface

The Government of Kerala has embarked on higher education sector reforms with the introduction of Four-Year Under Graduate Programme (FYUGP) in the state. The University of Kerala has developed a curriculum framework and regulations for FYUGP and the Board of Studies in Physical Education designed syllabi on Value Addition Courses [VAC] and Skill Enhancing Courses [SEC] for the implementation of the proposed FYUG Programmes across the affiliated colleges under the University of Kerala.

In the contemporary landscape of education, the discourse on holistic development and skill enhancement has gained substantial momentum. The introduction of the New Education Policy (NEP) has sparked significant discussions and actions aimed at revitalizing and redefining the educational framework. One of the pivotal aspects of this policy is the emphasis on integrating diverse disciplines and experiential learning opportunities into the academic fabric.

This preface explores into the dynamic realm of Physical Education courses within the framework of the NEP. Traditionally perceived as a supplement to academics, Physical Education is now being reimagined and repositioned as a valuable component of holistic education. The NEP's vision encompasses the inclusion of few courses in Physical Education not merely as optional add-ons but as integral elements that contribute to students' overall growth and development. A comprehensive education system acknowledges the interconnectedness of physical, mental, and emotional aspects of learning. By incorporating Physical Education as a Value Addition Course, the NEP strengthens the educational framework and addresses the multidimensional needs of students.

The essence of PE courses as value-addition and skill-enhancing emerges from their potential to foster physical fitness, mental well-being, teamwork, leadership skills, and a sense of discipline among learners. By incorporating the courses in Physical Education into the academic curriculum, educational institutions

can create a conducive environment for nurturing well-rounded individuals equipped with both cognitive and physical prowess. Educating students about the importance of physical activity and healthy living equips them with knowledge and skills that contribute to lifelong well-being. This preventive approach to health can reduce the burden of lifestyle-related diseases and promote a healthier society.

There are many profound personalities whose relentless support and signature made this syllabus a success. I take this opportunity to express my sincere appreciation to all those who were a part of endeavor for this syllabus of FYUGP in Physical Education under Kerala University. I express my profound gratitude to all Resources Persons for their sincere and selfless corporation and guidance for the completion of the work. I place on record, my wholehearted gratitude to the members of Board of Studies members of faculty and for their untiring efforts. I am also grateful to all teachers who participated in the workshops organized by the University for this Syllabus.

Thiruvananthapuram

20.04.2024

Prof. Dr BIJUKUMAR K

Chairman, P.G. BoS

Physical Education

Curricular Structure of the UOK-FYUGP (Honours)

3 Year UG Degree-6 Semesters

No	Course Type	No. of Courses	Total Credits
1	Foundation : Ability Enhancement courses(AEC)	4	12
2	Foundation : Multi- disciplinary Courses (MDC)	3	9
3	Foundation : Skill Enhancement Courses (SEC)	3	9
4	Foundation : Value Addition Courses (VAC)	3	9
5	Discipline Specific Courses : Major (DSC A)	11	44
6	Discipline Specific Elective Courses (DSE)	6	24
7	Discipline Specific Courses : Minor (DSC B & C)	6	24
8	Internship		2
	Total	36	133

4 Year UG Degree (Honours) - 8 Semesters

4 Year UG Degree (Honours with Research) -8 Semesters

No	Course Type	No.of Courses	Total Credits
1	Foundation : Ability Enhancement courses(AEC)	4	12
2	Foundation : Multi- disciplinary Courses (MDC)	3	9
3	Foundation : Skill Enhancement Courses (SEC)	3	9
4	Foundation : Value Addition Courses (VAC)	3	9
5	Discipline Specific Courses : Major (DSC A)	11	44
6	Discipline Specific Elective Courses (DSE)	6	24
7	Discipline Specific Courses : Minor (DSC B & C)	6	24
8	Discipline Capstone Courses: Major with DSE	8	32
9	Internship		2
10	Research Project		12
	Total	44	177



Graduate Attributes

Graduate attributes bridge the gap between academia and the real world, fostering lifelong learning and meaningful contributions. They denote the skills, competencies and high-level qualities that a student should acquire during their university education. Apart from gathering content knowledge, these attributes go beyond the assimilation of information to its application in various contexts throughout a graduate's life. It aims in inculcating the art of critical thinking, problem solving, professionalism, leadership readiness, teamwork, communication skills and intellectual breadth of knowledge. The University of Kerala envisages to pave the path in guiding the student's journey to shape these attributes uniquely, making them integral to personal growth and success in various spheres of life. The University strives to ensure that these graduate attributes are not just check boxes, but they play a pivotal role in shaping the students into capable, compassionate and responsible individuals with a high degree of social responsibility.

Programme Outcomes (POs)

PO1	Critical thinking
PO2	Complex problem-solving
PO3	Creativity
PO4	Communication skills
PO5	Leadership qualities
PO6	Learning ' how to learn ' skills
PO7	Digital and technological skills
PO8	Value inculcation

Programme Specific Outcomes

Since the Department of Physical Education of affiliated colleges of University of Kerala are not offering any major, Minor or MDC courses, Programme Specific Outcome are not applicable .

Syllabus Index

Name of the Subject: Physical Education

Semester 3

Course code	Title of Course	Type of Course	Credit	Total Hours	Hour Distribution	
					L	P
UK3VACPES200	FUNDAMENTALS OF HEALTH AND FITNESS	VAC	3	45	45	
UK3VACPES201	FOUNDATION FOR HEALTHY LIVING	VAC	3	45	45	
UK3VACPES203	EXERCISE AND DIET IN WEIGHT MANAGEMENT	VAC	3	45	45	

Semester 4

Course code	Title of Course	Type of Course	Credit	Total Hours	Hour Distribution	
					L	P
UK4VACPES200	LIFESTLYE MANAGEMENT AND HEALTHY AGING	VAC	3	45	45	
UK4VACPES201	COMMUNITY SPORTS AND WELLNESS	VAC	3	45	45	
UK4SECPES200	SPORTS TOURISM AND ADVENTURE SPORTS MANAGEMENT	SEC	3	45	45	
UK4SECPES201	SPOPRTS INFRA STRUCTURE AND EVENT MANAGEMENT	SEC	3	45	45	

Semester 5

Course code	Title of Course	Type of Course	Credit	Total Hours	Hour Distribution	
					L	P
UK5SECPES300	FIRST AID AND BASIC LIFE SUPPORT	SEC	3	45	45	
UK5SECPES301	YOGA AND HEALTHY LIVING	SEC	3	45	45	

Semester 6

Course code	Title of Course	Type of Course	Credit	Total Hours	Hour Distribution	
					L	P
UK6SECPES300	ESSENTIALS OF EXERCISE AND STRENGTH TRAINING	SEC	3	45	45	
UK6SECPES301	CAREER OPPURTUNITIES IN SPORTS	SEC	3	45	45	

SEMESTER III

Discipline	PHYSICAL EDUCATION				
Course Code	UK3VACPES200				
Course Title	FUNDAMENTALS OF HEALTH AND FITNESS				
Type of Course	VALUE ADDITION COURSE (VAC)				
Semester	III Semester				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	This course provides a comprehensive overview of health and fitness. The impact of lifestyle choices on all aspects of personal health are discussed including physical, mental, emotional, social, and environmental. The course will explore topics related to nutrition, physical fitness, stress management, disease prevention, and healthy relationships. The information and skills necessary for making informed and healthful decisions to promote basic health and fitness will be discussed with an emphasis on self-responsibility.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Introduction to Health		09
	1	Definition of Health and Importance of Health Quality of Life – Productivity and Performance -Reduced Health care cost- Longevity of life	2
	2	Concepts of Health- Bio medical Concept-Ecological Concept- Psychological Concept-Holistic Concept	2
	3	Dimensions of Health – Physical, Mental, Social, and Emotional	3
	4	Factors Affecting Health – Biological, Personal, Environmental and Sociological	2
II	Introduction to Physical Fitness		09
	5	Definition and meaning of Fitness	2
	6	Physical Fitness- Health Related Physical Fitness and Performance Related Physical Fitness	4
	7	Importance of Physical Fitness- Strengthens Body-Improve Cardiovascular Health-Weight Management -Enhance Mental Health- Reduce Chronic diseases- Increase quality of Life	1
	8	Types of Exercises - Aerobic Exercise and Anaerobic Exercise	2
III	General Means and Methods to Develop Health and Fitness.		09
	9	Regular Exercise - Warm Up and Cool Down , Strength Training , Cardiovascular Exercise, Mobility and Flexibility Training	4
	10	Diet - Balanced Diet and Hydration	2
	11	Rest, Sleep and Recovery	2
	12	Lifestyle modifications – Regular Exercise- Healthy Eating Habits- Stress Management-Adequate Sleep- Maintain Hydration- Regular Health Check Ups	1

IV	Implementation of Health and Fitness Practices		9
	13	Prepare Short Term and Long Term Goals	2
	14	Prepare a training a schedule	3
	15	Incorporate physical activity in daily routine	2
	16	Participation in recreational activities involving physical activity	2
V	Assessment of Health and Fitness		9
	17	Assessment of Physical Attributes - BMI, Waist Hip Ratio	2
	18	Monitoring of physiological variables - Resting Heart Rate, Measuring Blood Pressure	3
	19	Assessment of Health-Related Physical Fitness – AAPHERD Test.	3
	20	Track the progress of Health and Fitness	1

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Describe the basic concepts and factors associated with health of an individual.	U	
CO-2	Explain the basic concepts and factors associated with physical fitness of an individual.	U	
CO-3	Analyse the factors associated with the health and fitness programs	An	
CO-4	Formulate and apply personalised fitness goals	C	
CO-5	Evaluate the status of basic health and fitness of an individual	E	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: **FUNDAMENTALS OF HEALTH AND FITNESS**

Credits: 3:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture(L)/ Tutorial (T)	Practical (P)
CO-1		PO1	U	F	L	
CO-2		PO1	U	F	L	
CO-3		PO6	An	C	L	
CO-4		PO3	C	M	L	
CO-5		PO8	E	P	L	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1							3							
CO 2							3							
CO 3												2		
CO 4									2					
CO 5														2

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				
CO 4				
CO 5				

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- Howley, E. T., & Thompson, D. L. (2022). *Fitness professional's handbook*. Human Kinetics.
- Corbin, C. B., & Lindsey, R. (1997). Concepts of physical fitness.
- Corbin, C. B., & Lindsey, R. (2006). *Fitness for Life Updated*. Human Kinetics.
- Maffetone, P. (2012). *The Big Book of Health and Fitness: A Practical Guide to Diet, Exercise, Healthy Aging, Illness Prevention, and Sexual Well-Being*. Skyhorse Publishing Inc..
- Coombes, J. S., & Skinner, T. (2020). *ESSA's student manual for health, exercise and sport assessment*. Elsevier Health Sciences.
- Gibson, A. L., Wagner, D. R., & Heyward, V. H. (2024). *Advanced fitness assessment and exercise prescription*. Human kinetics.
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- American College of Sports Medicine. (2012). *ACSM's resource manual for guidelines for exercise testing and prescription*. Lippincott Williams & Wilkins.
- Poteiger, J. (2023). *ACSM's Introduction to exercise science*. Lippincott Williams & Wilkins.
- Marchese, R., Taylor, J., & Fagan, K. (2019). *The Essential Guide to Fitness*. Cengage AU.

Discipline	PHYSICAL EDUCATION				
Course Code	UK3VACPES201				
Course Title	FOUNDATION FOR HEALTHY LIVING				
Type of Course	VALUE ADDITION COURSE (VAC)				
Semester	III Semester				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-		3
Pre-requisites	.				
Course Summary	<p>This course provides a comprehensive overview of dietary guidelines, nutritional fundamentals, functional fitness, stress management and various aspects of women's health. It covers essential topics such as portion control, body composition and weight management, along with practical strategies for incorporating healthy habits into daily life. It addresses specific issues related to physical activity, mental health, addiction, and stress management, offering insights into improving overall well-being and quality of life.</p> <p>Overall, this course provides a holistic approach to fostering a healthy lifestyle, equipping students with the knowledge, skills and strategies necessary to optimize their physical and mental well-being. Through a combination of theoretical understanding and practical application, students will be empowered to cultivate habits conducive to a healthier and happier life</p>				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Dietary Guidelines for Healthy Fuelling		08
	1	Nutritional Fundamentals for sedentary-active people, athletes and elite athletes	3
	2	Portion control and Active living - Mindful eating, Balanced meals, Portion control tools.	3
	3	Body composition, Weight management for healthy lifestyle	2
II	Functional Fitness for Healthy Living		09
	5	Concept of Functional movements & Functional fitness	2
	6	Functional Fitness training Components (Exercise selection, balance & Stability training, Core strength)	4
	7	FITT principles (Load- Specificity, Adaptation & Progression)	2
	8	Latest trends in Functional fitness Training (Cross training- MMA- Tabata- Pilates- Power Yoga etc.)	1
III	Healthy Living and Overcoming Addictions		09
	9	Factors influencing quality of life	1
	10	Foundation for life-long physical activity	2
	11	Role of exercises in management of Hypokinetic diseases.	2

	12	Overcoming types of addictions-(Gambling, Alcoholism, binge eating, processed food, Social media, Workaholism, Sexual addiction)	2
	13	Adaptability and resilience-overcoming addiction to psycho active drugs	2
	Stress and Day-today Life		09
IV	14	Stressors (Eustress & Distress)	2
	15	Stress response (Common Stressors)	2
	16	Management of stress (Different techniques and modalities, regular physical activities, Yoga)	3
	17	Recovery and regeneration (Sleep, hygiene, importance of rest and recovery)	2
	Common Health Issues and Management		10
V	18	Women and health-Female Athlete (eating disorder, menstrual dysfunction & Osteoporosis)	3
	19	Mood swings and Exercises	2
	20	Sexual Health (STIs, Sexual Orientation, Sexual violence and abuse, Cultural and social factors)	3
	21	Reducing risk for cancer (Nature of Cancer and its detection)	2

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Differentiate nutritional needs for sedentary individuals, active people, athletes, and elite athletes. Analyze dietary requirements based on activity levels and performance goals. How to apply principles of balanced nutrition to support overall health and optimize performance.	R, U, Ap	
CO-2	Explain the Implementation of portion control strategies and mindful eating practices. Design balanced meals that incorporate a variety of nutrients. Critically explain the portion control tools to manage food intake effectively.	R, U, Ap	
CO-3	Explain the concept of body composition and its significance for health. Develop strategies for weight management within the context of a healthy lifestyle. What are the tools and methods for assessing and monitoring body composition changes.	R, U, Ap	
CO-4	Define functional movements and functional fitness. Identify the components of functional fitness training, including exercise selection, balance, stability training, and core strength exercises. Apply the FITT principles (Frequency, Intensity, Time, Type) to design effective functional fitness programs.	U, Ap, E	

CO-5	Evaluate the latest trends in functional fitness training, such as cross-training, MMA (Mixed Martial Arts), Tabata, Pilates, and Power Yoga. Assess the applicability and effectiveness of these trends in promoting overall health and fitness.	U, Ap, An, C	
CO-6	Explain factors influencing quality of life and well-being. Elaborate the role of exercise in managing hypokinetic diseases and overcoming various types of addictions, including gambling, alcoholism, binge eating, processed food addiction, social media addiction, workaholism, and sexual addiction.	U Ap, An, E	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: FOUNDATION FOR HEALTHY LIVING

Credits: 3:0:0 (Lecture:Tutorial:Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PSO1	PSO2	PSO3	PSO4	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1	-	-	-	-	2	3	2	3	3	2	3	2
CO 2	-	-	-	-	2	3	3	2	3	3	3	2
CO 3	-	-	-	-	3	2	3	2	3	2	3	3
CO 4	-	-	-	-	3	2	3	2	3	2	3	3
CO 5	-	-	-	-	3	2	3	2	3	3	3	3
CO 6	-	-	-	-	2	3	3	2	3	3	2	2

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low

2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics :

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				
CO 4				
CO 5				
CO 6				

References

- "Sports Nutrition: A Handbook for Professionals" by Christine Rosenbloom and Christine Karpinski
- "Nancy Clark's Sports Nutrition Guidebook" by Nancy Clark
- "Mindless Eating: Why We Eat More Than We Think" by Brian Wansink
- "The Portion Teller Plan" by Lisa R. Young
- "Weight Management in Athletes and Active Individuals: A Brief Review of the Evidence" by Angela D. Liese et al. (Journal of Sports Science & Medicine)
- "Dietary Strategies for Weight Management in the Athlete" by Kimberly Stein et al. (Current Sports Medicine Reports)
- Centers for Disease Control and Prevention (CDC): "Healthy Weight - it's not a diet, it's a lifestyle!"

- "Understanding the Modified Harris-Benedict Equation: Its Strengths and Pitfalls" by J.J. Cunningham and K.M. Fridén (Strength and Conditioning Journal)
- "The Functional Training Bible" by Guido Bruscia and Paolo Mazzarello
- "Functional Training" by Michael Boyle
- "ACSM's Guidelines for Exercise Testing and Prescription" by American College of Sports Medicine
- "Essentials of Strength Training and Conditioning" by NSCA - National Strength & Conditioning Association
- "High-Intensity Functional Training (HIFT): Definition and Research Implications for Improved Fitness" by Jason M. Cholewa et al. (Journal of Exercise Physiology Online)
- "Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation"
- "The Impact of Health Behaviors on Quality of Life" by Eliza Sutton et al. (Journal of Pain and Symptom Management)
- "Physical Activity and Health: A Report of the Surgeon General" by U.S. Department of Health and Human Services
- "Adherence to Exercise Programs: What Are the Barriers and How to Overcome Them?" by D.L. Williams and M.D. Anderson (Physician and Sportsmedicine)
- "Exercise Prescription: A Case Study Approach to the ACSM Guidelines" by David P. Swain et al.
- "Physical Activity and Exercise Recommendations for Stroke Survivors" by Sandra A. Billinger et al. (Stroke)
- "Substance Abuse Treatment and the Stages of Change: Selecting and Planning Interventions" by Gerard J. Connors et al.
- "Addiction Medicine" by John B. Saunders et al.
- "Resilience and Mental Health: Challenges Across the Lifespan" by Steven M. Southwick et al.
- "The Role of Resilience in the Recovery from Trauma and Addiction" by Jeffery H. Samet et al. (Alcoholism Treatment Quarterly)
- "Stress, Health, and Well-Being: Thriving in the 21st Century" by Rick Harrington
- "The Stress Solution: Using Empathy and Cognitive Behavioral Therapy to Reduce Anxiety and Develop Resilience" by Arthur P. Ciaramicoli
- "Physiology and Neurobiology of Stress and Adaptation: Central Role of the Brain" by George Fink
- "Stress, Neuroendocrinology, and Neurobiology of Mood Disorders" by George Fink et al. (Handbook of Neurochemistry and Molecular Neurobiology)

- "Stress Management: A Comprehensive Guide to Wellness" by Edward A. Charlesworth et al.
- "Mindfulness-Based Stress Reduction: A Literature Review and Clinician's Guide" by Linda E. Carlson et al. (Journal of the American Academy of Nurse Practitioners)
- "Sleep Medicine: Essentials and Review" by Teofilo Lee-Chiong

Discipline	PHYSICAL EDUCATION				
Course Code	UK3VACPES202				
Course Title	EXERCISE AND DIET IN WEIGHT MANAGEMENT				
Type of Course	VALUE ADDITION COURSE (VAC)				
Semester	III Semester				
Academic Level	200 – 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	Exercise, diet and weight management are necessary components for quality life. This course opens the vistas for empowering students with the knowledge of exercise and diet in weight management. This achieved skill could help in leading a quality life and tackling discomforts. The physical, mental and social components of health are addressed through a proper weight management regime.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Basics of Food and Nutrients		09
	1	Concept of food and nutrients	1
	2	Classification of nutrients- micro- (Carbo hydrates, Protein and Fat) and macro – (Vitamins and Minerals), its functions, sources Deficiency diseases – (i) Kwashiorkar, (ii) Marasmus (iii) Fatty acid deficiency diseases (dry and scaly skin, impaired immune function). (iv) Rickets, (v) Scurvy (vi) Anemia (vii) Osteo porosis (viii) Goiter (ix) Osteo malacia	3
	3	Proximate principle and balanced diet	2
	4	Dietary guidelines and recommendations for healthy living – (i) Balanced diet (ii) Protein control (iii) Limit added sugars and sodium (iv) Choose healthy fats (v) Stay hydrated (vi) Include fiber rich foods (vii) Be mindful of good choices (viii) Limit processed foods (ix) Seek professional guidance (x) Regular physical activity	3
II	Introduction to Weight Management		09
	5	Meaning of weight management	1
	6	Importance of maintaining a healthy weight. – (i) Reduced risk of chronic diseases, (ii) Improved heart health (iii) Better management of existing health condition (iv) enhanced mobility and joint health (v) Improved energy levels and quality of life (vi) Reduced risk of mental health issues (vii) Longevity	2

	7	Healthy Weight gain and healthy weight loss, and health risks. Health risk of Weight gain – (i) Obesity related diseases (ii) Metabolic syndrome (iii) Joint problems (iv) Sleep apnoea (v) Mental health issues Health risk of rapid/unhealthy weight loss – (i) Nutritional deficiencies (ii) Muscle loss (iii) Electrolyte imbalance (iv) Gall Stones (v) Heart Problems (vi) Mental health concerns	3
	8	Factors influencing body weight – Hereditary, Gender, Age, Physical activity, Eating habits, Work and Family life, Environmental, Psycho-Social, Medications	3
	Weight Tracking and Monitoring measures		09
III	9	Understand the basics of body weight and Body Composition –Ideal Body weight, Components of body composition (lean body mass fat free mass and height weight chart)	3
	10	BMI, Waist - hip ratio, Skinfold Assessment, Bio impedance Analysis, DEXA Scan, Under water weighing	2
	11	Calculation of BMR, RMR, TDEE.	2
	12	Use of electronic gadgets and applications in monitoring caloric expenditure and weight management - Fitness Trackers, Smart Scales, Caloric Tracking Apps, Smartphone Apps with Pedometers, Wireless Body Composition Analyser.	2
	Physical Activity and Exercise for Weight Management		9
IV	13	Role of Exercise in weight management – (i) Caloric expenditure (ii) Increased metabolism (iii) Improved insulin sensitivity (iv) appetite regulation (v) Maintenance of lean body mass (vi) Long term weight maintenance (vii) Overall health benefits.	2
	14	Scientific basis of Aerobic exercises and Strength training in Weight management. (FITT Principle)	2
	15	Types of Aerobic exercises for Weight Management –Cycling, Swimming, Jogging, Running, Aerobics, Zumba (Fat burning zone)	2
	16	Types of Strength training exercises for weight management - Own body weight exercises, weight training, elastic bands, Cross Fit training, Kettle Bell Tabata. (Exercise intensity zone)	3
	Dietary Recommendations for Weight Management		9
V	17	Meal composition – (i) Balanced macro nutrients (ii) Whole foods (iii) Fibre rich foods (iv) Hydration (v) Protein control Meal timing – (i) consistent schedule (ii) Break fast (iii) Post work out nutrition (iv) Evening meals Meal frequency – (i) regular meals (ii) Snacking (iii) Listen to hunger cues (iv) Inter mitten fasting	2
	18	Dietary recommendations for weight gain – (i) Increase caloric intake (ii) Focus on nutrient dense foods (iii) Eat regularly (iv) Choose calorie dense foods (v) Include protein rich foods (vi) Healthy fats (vii) Drink caloric rich beverage (viii) Strength training (ix) Monitor portion sizes (x) Stay hydrated	3

19	Dietary recommendations for weight loss – (i) Caloric deficit (ii) Balanced diet (iii) Protein control (iv) eat mindfully (v) Limit processed foods (vi) Increase fibre intake (vii) Choose lean protein (viii) Limit added sugars and sugary beverages (ix) Stay hydrated (x) Plan and prepare meals (xi) Be physically active	3
20	Energy balance – (i) Positive energy balance (ii) Negative energy balance (iii) Neutral energy balance	1

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Explain the fundamentals of nutrition	U	
CO-2	Describe the factors associated with weight management	U	
CO-3	Apply the key indicators of weight management and monitoring measures	Ap	
CO-4	Analyze the role of exercise in Weight Management	An	
CO-5	Evaluate the role of diet in Weight Management	E	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: EXERCISE AND DIET IN WEIGHT MANAGEMENT

Credits: 3:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture(L)/ Tutorial(T)	Practical (P)

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PSO1	PSO2	PSO3	PSO4	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1					3	3	2	2	2	3	2	3
CO 2					3	2	2	2	2	3	2	3
CO 3					3	3	3	2	3	3	3	3
CO 4					3	3	3	2	2	3	2	3
CO 5					3	3	3	2	2	3	2	3
CO 6												

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment / Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				
CO 4				
CO 5				

REFERENCES:

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SEMESTER IV

Discipline	PHYSICAL EDUCATION				
Course Code	UK4VACPES200				
Course Title	LIFESTYLE MANAGEMENT AND HEALTHY AGEING				
Type of Course	VALUE ADDITION COURSE				
Semester	IV				
Academic Level	200 – 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours /Week
	3	3 hours	-	-	3
Pre-requisites	.				
Course Summary	Lifestyle Management and Healthy Ageing is a comprehensive course designed to explore the principles, strategies, and practices for enhancing quality of life through lifestyle interventions and promoting healthy ageing. This course delves into the physiological, psychological, and social aspects of ageing, and examines evidence-based approaches to lifestyle management for optimal health outcomes in older population. Students acquire knowledge and skills in areas such as nutrition, physical activity, stress management, and social engagement to support healthy ageing across the lifespan.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Introduction to Healthy lifestyle		09
	1	Introduction to Lifestyle, definition and types of life style. (Healthy and Unhealthy)	1
	2	Benefits of Healthy lifestyle (Physical Health, Mental Health, Emotional Well-being, Longevity and Quality of Life, Overall Well-being.	1
	3	Key elements of Healthy lifestyle - Role of exercise, Diet, Rest, Sleep, Stress Management and Supplementation of nutrients. Role of Exercise- Physical Health, Mental Health, Social Health, Emotional Well-being, Quality of Sleep and Longevity. Diet- Nutrients Intake, Energy Balance, Disease Prevention, Gut Health, Mental and Emotional Well-being and Longevity. Rest- Physical Recovery, Immune Function, Stress Reduction, Cognitive Function, Hormonal Balance, Recovery from Illness or Injury. Sleep- Physical Health, Cognitive Function, Mental Health, Energy and Alertness, Appetite Regulation, Immune Function.	4

		Stress Management- Physical Health, Cognitive Function, Mental Health, Quality of Relationship, Sleep Quality, Overall Quality of Life. Supplementation of Nutrients- Filling Nutritional Gaps, Supporting Specific Health Goals, Compensating for Dietary Restrictions, Managing Medical Conditions, Enhancing Overall Well-being.	
	4	Guidelines and Recommendations for healthy living (Exercise, Diet, Rest, Sleep) Exercise-Types of Exercise, frequency and Duration, Intensity Progression, Rest and Recovery, Safety Precaution, Consistency. Diet- Balanced Macro and Micro Nutrients, Portion Control, Whole Foods, Hydration, Healthy Snacking, Moderation and Variety, Mindful Eating. Rest- Quality Sleep, Restful Environment, Stress Reduction, Rest Days, Leisure Time, Work Life Balance, Social Connection, Self-Care. Sleep- Consistent Sleep Schedule, Create a Relaxing Bed Time Routine, Sleep Environment, Limit Stimulants and Electronics Before Bed, Manage Stress and Anxiety, Monitor Sleep Environment, Exercise Regularly, Seek Professional Health If Needed.	3
II	Life Style Disease Management		12
	5	Lifestyle disease – Definition and meaning	1
	6	Major lifestyle diseases- Coronary Heart Diseases, Obesity, Diabetes, Hypertension, Osteoporosis, Psychological Disorders (Depression, Anxiety, Stress)- Characteristics, causes and consequences.	7
	7	Role of exercise and diet on lifestyle diseases	2
	8	Role of rest and sleep on lifestyle diseases	2
III	Functional Movement Choices for healthy life style		09
	9	Understanding physical activity, exercise and sedentarism (IPAQ – International Physical Activity Questionnaire)	1
	10	Physical literacy, Importance of integrating movements into everyday life(Physical Health, Mental Health, Social Health, Energy and Vitality, Weight Management, Joint Health and Mobility, Posture and Alignment, Longevity and Quality of Life). Use Principle, Disuse Principle and Overuse principles.	3
	11	Basic functional exercises- Squat, Pull, Push, Dips, Sit ups, Lounges, Planks, Mobility and Flexibility Exercises.	3
	12	Precautionary measures in exercising- Consult a Healthcare Professional, Warm-up, Stay Hydrated, Use Proper Form, Progress Gradually, Include Variety, Use Appropriate Equipment, Listen To Your Body, Cool Down, Recover Properly.	2
	Recreation and Leisure		6
	13	Introduction to Recreation and Leisure – its nature and scope	1
	14	Role of Recreation and Leisure in Healthy lifestyle(Physical Activity, Stress Reduction, Social Connection, Cognitive Stimulation, Enhanced Quality of life, Improved Mental Health)	1

IV	15	Recreation and Leisure activities for different age groups. Children(Ages 0-12) - Playground Activities, Sports and Games, Creative play, Nature Exploration Teenagers (Ages 13-19) - Sports and Outdoor Activities, Fitness classes or Gym Workouts, Creative Hobbies, Social Activities, Volunteer Work Young Adults (Ages 20-29) - Recreational Sports Leagues, Outdoor Adventures, Fitness Activities, Cultural and artistic Pursuits, Social Gatherings Middle-Aged Adults(Ages 40-65)- Recreational sports and fitness, Outdoor Activities, Cultural and educational Pursuits, Travel and Adventure, Volunteer Work Seniors(Ages 65 +)- Low-impact Fitness Activities, Social Clubs and Groups, Cultural Outings, Volunteer Opportunities, Outdoor Activities	2
	16	Latest trends in recreation and leisure.(Outdoor recreation, Wellness Tourism, Virtual and Augmented Reality experiences, Outdoor Fitness classes, Adventure Travel, Cultural and Culinary Experiences, Mindfulness and Meditation, Sustainable Travel and Ecotourism, Outdoor Dining and Socialising)	2
V	Wellness and Healthy Aging		9
	17	Definition and Concept of Ageing and Healthy Ageing	1
	18	Common health conditions associated with Ageing.(Arthritis, Osteoporosis, Cardiovascular Disease, Type 2 Diabetes, Alzheimer's Disease and other Dementias, Depression and Anxiety, Vision and Hearing loss)	2
	19	Factors affecting Healthy ageing (Physical, Physiological, Sociological and Psychological).	2
	20	Role of Exercise and Nutrition for Healthy Ageing Exercise - Maintains physical function, Improves Cardiovascular health, Promotes Joint Health, Enhance Bone Health, Manages Chronic conditions, Boost Mental Health, Enhance Sleep Nutrition - Provides Essential Nutrients, Supports Muscle Health, Promotes Bone Health, Manages weight, Supports Digestive Health, Reduces Inflammation, Maintains Cognitive Function	3
21	Introduction to Geriatrics	1	

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Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Summarize the importance of Lifestyle Choices	U	
CO-2	Describe interventions in management of lifestyle diseases	U	
CO-3	Illustrate fundamental exercises for functional movements	AP	
CO-4	Distinguish between recreation and leisure programs	U	
CO-5	Estimate the strategies for healthy ageing	E	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: **LIFESTYLE MANAGEMENT AND HEALTHY AGEING**

Credits: 3:0:0 (Lecture:Tutorial:Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture(L)/ Tutorial(T)	Practical (P)

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1							2	2	2	1	2	3	1	3
CO 2							2	2	3	2	3	3	1	3
CO 3							2	3	3	2	3	3	2	3
CO 4							2	2	2	2	3	3	1	3
CO 5							3	2	3	2	3	3	1	3
CO 6														

Correlation Levels:

Level	Correlation
1	
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Quiz/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics :

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				

CO 3				
CO 4				
CO 5				

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Discipline	PHYSICAL EDUCATION				
Course Code	UK4VACPES201				
Course Title	COMMUNITY SPORTS AND WELLNESS				
Type of Course	VAC				
Semester	IV Semester				
Academic Level	200 – 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	3 hours	-	-	3
Pre-requisites					
Course Summary	<p>This course intends to develop a sports culture by bringing the community together through various sports programmes. The course covers a wide range of topics related to sports, fitness, and community well-being. The course offers a variety of fun, exciting fitness and recreation sports that enhance and add quality to life. Focuses on understanding the factors that contribute to community health, strategies for promoting wellness, aspects of managing community sports programmes, facilities, events, including organizational leadership skills and finance.</p>				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Introduction to Community Sports and Wellness		09
	1	Community - Definition and Meaning Sociology of Sport and Physical activity Meaning, Need and Importance of Community Sports Programmes- Physical Health, Social Integration, Youth Development, Crime Prevention, Community Cohesion, Health Equity.	1
	2	Sports Culture & Community Sports - Meaning and Definition Historical perspectives of Community Sports- Medieval Festivals and Tournaments, Industrialisation and Urbanisation, Amateurism and Olympism, Civil Rights and Social Movements, Governmental Supports and Policy, Commercialisation and Globalisation.	2
	3	Role of Community Sports in developing Health Awareness- Promoting Physical Activities, Educating About Healthy Lifestyles, Fostering Positive Role Models, Addressing Health Disparities, Creating Supportive Networks, Empowering Communities.	1
	4	Meaning, Concepts and Dimensions of Wellness	

	5	Role of Indigenous, Traditional and Regional Games for Promoting Wellness- Cultural Preservation, Physical Activity, Community Engagement, Mental Well-being, Environmental Awareness, Intergenerational Learning.	
II	Health and Wellness		09
	6	Meaning and Importance of Health and Wellness- Quality of Life, Disease Prevention, Enhanced Resilience, Longevity, Productivity and Performance, Cost Saving.	1
	7	Dimensions of Health -Physical Health, Mental Health, Social Health, Emotional Health, Spiritual Health, Intellectual Health and Environmental Health.	2
	8	Factors influencing Health and Wellness – [Biological, Personal & Socio-Cultural]	2
	9	Health and Wellness through physical activities - Sports, Games, Yoga, Recreation and Leisure Time Activities	2
	10	Causes of Stress- Work or School Pressure, Financial Concerns, Relationship Issues, Life Transitions, Health Problems, Traumatic Events, Environmental Factors, Social Pressures, Perfectionism, Uncertainty and Lack of Control. Stress Relief through Exercise and Yoga- Physical Activity, Mind-Body Connection, Muscle Relaxation, Stress Reduction Techniques, Improved Sleep, Social Support, Empowerment and Self-Efficacy.	2
III	Community Sports Programme		09
	11	Different types of Community Sports Programmes [Sports Day, Cycle Rally, Walkathon, Run for fun, Health run, Run for Unity and Run for Awareness, etc...]	2
	12	Facilities needed for Community Sports Programmes Checklist to set up Community Sports Programmes [Objectives & Goals, Identifying the Targeted Group/Participants, Assess Resources (Man, Money, Material), Develop Programme Structure, Sponsorship for Promotion, Recruitment of Staff & Volunteers, Safety Measures, etc...]	2
	13	Community Sports Programmes for Women and Children [Health & Fitness/Wellness Awareness Programmes, Self-Defence Programmes, Mother-Daughter Sports Programmes, Dance Classes / Programmes (Zumba /Aerobics, etc...), Sports Clinics & Skill Development Programmes, Fitness Challenge Programmes)	2
	14	Community Sports Programmes for People with Special Needs [Special Olympics, Adaptive Sports Programmes (Wheelchair Race, Basketball / Tennis, Handball, etc...), Inclusive Fitness Programmes, Paralympic Sports, Competitions for Visually / Hearing impaired People, etc...] Community Sports Programmes for Geriatric people	2

	15	Socialisation of Sports & Development of Sports Culture through Community Sports - Building Social Bonds, Promoting Inclusivity and Diversity, Instilling Values and Norms, Encouraging Healthy Life Style, Fostering Community Pride and Identity, Cultural Expression and Celebration, Promoting Volunteerism and Civic Engagement, Enhancing Economic Development.	1
IV	Recreation and Community		9
	16	Meaning of Play, Recreation Sport and Leisure	2
	17	Health benefits of Recreation to individuals and community [Physical, Physiological, Psychological and Social]	2
	18	Modern Trends in Recreation & Leisure Time Sports Activities- Fitness Technology, Outdoor Adventure Sports, Group Fitness Classes, Alternative Sports, Mind-Body Practices, ESports and Gaming, Inclusive and Adaptive Sports, Wellness Retreats and Experiences, Sustainable and Eco-Friendly Practices, Social and Experiential Activities. Difference between Recreation Sport and Competitive Sport	2
	19	Various Recreational Agencies - Local Community, Sport Clubs, Recreation Groups, Schools, Residence Associations, LSGs, Lions Clubs, Rotary Clubs, etc. Social, Economic and Administrative aspects of Recreation and Leisure: -Social Aspects: Community Building, Health and Well-being, Social Inclusion, Cultural Expression, Economic Aspects: Revenue Generation, Employment Opportunities, Infrastructure Investment, Tourism and Economic Development Administrative Aspects: Policy and Planning, Regulation and Compliance, Budgeting and Funding, Marketing and Promotion. Professional Ethics and Issues in Recreation and Leisure administration: Professional Ethics- Integrity and Honesty, Confidentiality, Fairness and Equity, Professional Competence, Conflict Resolution, Financial Integrity, Environmental Stewardship, Professional Relationship, Ethical Leadership, Legal Compliance Issues- Equitable Access, Resource Allocation, Environmental Sustainability, Safety and Risk Management, Programming Diversity and Inclusion, Ethical Leadership, Technology Integration, Community Engagement. Recreation and leisure for a special population.	3
	Organisation and Administration of Community Sports Programmes		9
	20	General guidelines in organising Community Sports Programmes – Various Committees [Publicity, Transport, Reception, Refreshment, etc...] Pre, During & Post Programme duties	3

V	21	Roles and Responsibilities of Administrators, Coaches and Volunteers in Community Sports [Resource Management]:- Administrators- Strategic Planning, Resource Management, Programme Development, Risk Management, Community Engagement, Compliance and Governance Coaches - Player Development, Team Management, Practice Planning, Game Coaching, Player Welfare, Role Modelling. Volunteers- Event Support, Coaching Assistance, Community Outreach, Fundraising and Sponsorship, Administrative Support, Mentoring and Support.	2
	22	Safety measures while organising Community Sports Programmes- Risk Assessment, Participant Screening, Qualified Staff and Volunteers, Emergency Action Plan, Safety Equipment, Venue Safety, Supervision and Monitoring, Hydration and Nutrition, Injury Prevention, Communication and Feedback, Documentation and Reporting,	2
	23	Leadership Skills needed for organising Community Sports- Communication, Team Building, Decision Making, Problem Solving, Organizational Skills, Adaptability, Vision and Strategic Planning, Empathy and Relationship Building, Conflict Resolution, Ethical Leadership.	2
	24	Assignment - Preparation of Project / Programme (Community Sports Programme/s) Proposal	

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Identify the role of community sports in health awareness	U	
CO-2	Describe the factors influencing health and wellness	U	
CO-3	Demonstrate the community sports programmes for healthy living	Ap	
CO-4	Identify ethical principles and issues of recreation and leisure	U	
CO-5	Administer and organise community sports programmes.	Ap	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 3:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture(L)/Tutorial(T)	Practical(P)

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive Mapping of COs with PSOs and POs

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1							2	2	2	2	2	3	1	3
CO2							3	2	2	2	2	3	1	3
CO3							2	3	3	2	3	3	2	3
CO4							2	2	3	2	2	3	2	3
CO5							2	2	3	3	3	3	1	3
CO6														

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment / Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				

CO 4				
CO 5				

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Programme	PHYSICAL EDUCATION				
Course Code	UK4SECPES201				
Course Title	SPORTS TOURISM AND ADVENTURE SPORTS MANAGEMENT				
Type of Course	SKILL ENHANCEMENT COURSE (SEC)				
Semester	IV Semester				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical Hours	Total Hours/W week
	3	2	-	2	4
Pre-requisites					
Course Summary	This will provide vocational knowledge, experience and confidence in the field of sports tourism and adventure sports management to identify its scope leading to entrepreneurship.				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Introduction to sports tourism and adventure sports		5
	1	Understanding sports tourism, Introduction and classification of adventure sports activities.	2
	2	Scope and objectives of adventure sports activities	1
	3	Scope of sports tourism in Kerala based on geographical conditions.	1
	4	Popular adventure sports locations in India	1
II	Land based adventure sports		15
	5	Introduction, Planning, and management of various land based adventure sports, principles, route planning, map reading.	2
	6	Cycling, rock climbing, trekking, mountain biking, jungle safari, mountaineering, camping, snow skiing, zip line etc. (practical on selected activities)	2/4
	7	Various equipment for land based adventure sports. Uses of Knots: Thumb, Reef, Clove Hitch, Fisherman, Simple Bowline, Figure of Eight, Tent preparation. (Recommended to have practical/ hands on training/ field visit on selected activities)	2/4
	8	Risk analysis and safety precautions to be followed during various land-based sports activities.	1
	Water based adventure sports		10
	9	Introduction, Planning, and management of various water sports	1

III	10	Jet skiing, Kayaking, Scuba diving, Knee boarding, River rafting, Banana ride, Yachting, Deep sea diving, sailing etc. (Recommended to have practical/ hands on training/ field visit on selected activities)	2/5
	11	Various equipment for water based adventure sports.	1
	12	Risk analysis and safety precautions to be followed during various water sports activities.	1
IV	Air based adventure sports.		15
	13	Introduction, Planning, and management of various air based sports;	2
	14	Bungee jumping, Sky diving, Paragliding/ Parachuting, powered hang gliding etc. (Recommended to have practical/ hands on training/ field visit on selected activities)	3/7
	15	Various equipment for air based adventure sports.	1
	16	Risk analysis, safety precautions and of various air based sports activities.	2
V	Planning, safety and legal formalities		15
	17	Planning and organisation, Backpacking list, First-Aid of Injuries, Bandaging & Carrying Techniques, Safety Equipment & Clothing	2
	18	Legal formalities to be fulfilled for the conduct of various adventurous activities (govt. of Kerala, govt. of India).	2
	19	Introduction to Rescue Techniques & Stress Calls	1
	20	Business and Leisure, Future of Sports Tourism and Field visit. (P)	10

Course Outcomes (CO):

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO1	Importance and scope of adventurous sports activities relevant to the field of sports tourism.	U	
CO2	Theoretical and practical knowledge regarding various land based adventure sports, equipment used, and safety methods to handle concerned events.	Ap	practical
CO3	Theoretical and practical knowledge regarding various water based adventure sports, equipment used, and safety methods to handle concerned events.	Ap	practical
CO4	Theoretical and practical knowledge regarding various Aero based adventure sports, equipment used, and safety methods to handle concerned events.	Ap	practical

CO5	Rescue techniques and legal formalities for the conduct of various adventurous activities. Internship at recognised centres for training experience.	Ap	practical
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R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Sports Tourism and Adventure Sports Management

Credits: 2:0:1 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1	U		R, U		L,T	
2	AP, C		R, U	AP,AN,C	L,T	P
3	AP, C			AP,AN,C	T	P
4	AP, C			AP,AN,C	T	P
5	C,AP			U, AP,C	L,T	P

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

	PSO1	PSO2	PSO3	PSO4	PSO5
CO 1	3				
CO 2		1		2	
CO 3			1	2	
CO 4			1	2	
CO 5				1	2

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments (20%)
- Final Exam (70%)

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓	✓		✓
CO 3	✓	✓	✓	✓
CO 4		✓	✓	✓
CO 5		✓	✓	✓

Reference:

1. Christopher Nye. (2019). **The UK Adventure Sports Handbook** (1st edition). Survival Books.
2. Johnson, Tim. (2015). *Get Started With Scuba Diving* (Water Sport Series Book 4). Shaharm Publications
3. Beames, Simon. et.al. (2019). *Adventure and Society*. (1st edition). Springer International Publishing.
4. Allison, Pete (2011). *Adventure Education: An Introduction*. (1st edition). Routledge Publications
5. Joy Standevan. (2019). *Sport Tourism*. Human Kinetics Publications.
6. Drew, Emma. (2007) *A Guide to Adventure Sports*, A & C Black Publishers Ltd.
7. Michael De Medeiros. (2007) *Mountain Biking*. Weigl Educational Publishers Ltd.
8. Nealy, William. *Mountain Bike*. (2018). Menasha Ridge Press Inc.
9. Joe Tomlinson. (1996). *Extreme Sports*. Smithmark Pub
10. Fredericksen, Devon. (2019). *How to Camp in the Woods*. Black Dog & Leventhal.
11. Higham, James & Tom. (2018). *Sport Tourism Development: 84 (Aspects of Tourism)* (3rd edition). Channel View Publications.
12. *Dinghy Sailing: The Essential Guide to Equipment & Techniques*, Sarah Ell, New Holland Publishers Ltd
13. Crane, Loveth (2023). *Campers' First Aid Handbook: Essential Skills for Safe Outdoor Adventures*

14. Erin K. Butler. (2011). *Extreme Air Sports*. Capstone Press.
15. Andrew W. Cole. (2020). *Diving made simpler*.
16. Sittser, J. *The Adventure*.
17. Yost-Filgate, Susan (ILT). *The Adventure*.
18. Kalpana Swaminathan. *Adventure*.
19. Romola Butalia. *Rafting: An Introduction*.
20. Kilpatrick, Irene/ Hall, Susan (ILT). *All for Adventure*.
21. Rajiv Butalia. *Scuba Diving: An Introduction*.

Discipline	PHYSICAL EDUCATION				
Course Code	UK4SECPES201				
Course Title	SPORTS INFRASTRUCTURE AND EVENT MANAGEMENT				
Type of Course	SKILL ENHANCEMENT COURSE (SEC)				
Semester	IV Semester				
Academic Level	200 - 299				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	2 hours	0	2 hours	60
Pre-requisites	1. Sports field, Visit of indoor stadiums 2. MOU with sporting organisations				
Course Summary	The course will enable students to gain managerial skills for sports infra development and event management				

Detailed Course Syllabus

Module	Unit	Content	Hrs
I	Introduction to sports infrastructure and event management		5
	1	Sports Management Principles and personal skills (Strategic Planning, Finance management, Marketing and Promotion, infra management, event management, Global Perspective, Marketing and Promotion etc...)	1
	2	Introduction to Financial and Marketing management in sports	2
	3	Introduction to Human resources, public relation and sponsorship in sports in management	1
	4	Introduction to planning sports events and management (Single game and multiple game events)	1
II	Event Management		9
	5	Finance committee, financial goals, Budgeting,	2
	6	Fund allocation to different committees	2
	7	Locating and Mobilising resources, working capital	2
	8	Basic accounts and file management (Keeping Bills and Vouchers Auditing and daily analysis) Logistics and transportation	2
	9	Event planning, security and proceedings.	1
III	Advertising, Public relation and sponsorship in sports		7
	10	Meaning and objectives of sponsorship, Marketing and advertising in sports, Developing sponsorship proposals, Title sponsors and branding, Details of sponsorship agreement	2
	11	Concept, Structure and Function of PR Management	2
	12	Advertising techniques (social media, Visual media, Print Media, Brochures and pamphlets, billboards, banners, Organising promotion events)	2
	13	Sports personalities as Brand endorsers.	1
IV	Infrastructure Development and management		9

	14	Development of sports arena, play fields, Swimming pools, Gymnasium, Fitness centre indoor stadium etc...	4
	15	Planning and management of infrastructure facilities like gallery, provision for drinking water lighting seating arrangements etc	2
	16	First Aid and Safety arrangements	
	17	Finance and Budgeting for Facility management including Human resource	3
V	Practical, Projects, Assignments Seminars		30
	18	projects and assignments- Internship with association, Intercollegiate, School level tournaments, Development Maintenance and organizing of sporting arena Working Plan. Preparing sponsorship proposal. Conducting seminars.	30

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Estimate basic knowledge of Sports infra and event management	U	
CO-2	Estimate Event Management techniques	R, U	
CO-3	Identify Advertising, Public relation and sponsorship in sports methodology	R, U	
CO-4	Interpret Infrastructure Development and management Methodology	R, U	
CO-5	Apply, create evaluate Theories and practical learned for sports infra and event management	AP, E, C	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 2:0:1 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture(L)/ Tutorial (T)	Practical (P)
CO-1						
CO-2						
CO-3						
CO-4						
CO-5						

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

	PSO 1	PSO 2	PSO 3	PSO4	PSO5	PSO 6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1								2				
CO 2								2				
CO 3									2		1	
CO 4								1		2		
CO 5											1	2
CO 6												

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate /Medium
3	Substantial /High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignm ent	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				
CO 4				
CO 5				
CO 6				

Reference:-

- Managing sports facilities fourth edition by, Gill Fried, Mathews Kastel.
- Managing Sport Facilities and Major Events, Second Edition, By Eric C. Schwarz, Hans Wester Beek, Dongfeng Liu, Paul Emery, Paul Turne
- Key Concepts in Sports Event Management Planning, Execution and Success .by Dr. Yatendra kumar Singh (Author).
- Strategic Sports Event Management. 4th Edition, By Guy Masterman.
- Event Management in Sport, Recreation, and Tourism, Theoretical and Practical Dimensions by Cheryl Mallen, Lorne J. Adams.

Discipline	PHYSICAL EDUCATION				
Course Code	UK5SECPES300				
Course Title	FIRST AID AND BASIC LIFE SUPPORT				
Type of Course	SKILL ENHANCEMENT COURSE (SEC)				
Semester	V Semester				
Academic Level	300 – 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	2	0	2	60
Pre-requisites					
Course Summary	This will give an awareness about physical and physiological aspects of human body. It also gives an in-depth knowledge of injuries and its management. Is also gives confidence to the students to handle emergency situation.				

SEMESTER V

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Concept of First aid		7
	1	First Aid - Meaning and Definition	1
	2	Aim and Objectives	2
	3	Principles of First Aid, First Aid Kit, Legal and Ethical considerations in administering first aid. Primary survey: ABC (Airway, Breathing, Circulation)	2
	4	Bones and Joints - Types, Structural and Classifications	2
II	Sports injuries and Management		8
	5	Injuries and Types	1
	6	Skin Injuries and its classifications (Abrasion, Laceration, Blisters, Avulsion, Puncture wound etc.)	2
	7	Soft Tissue Injuries	1
	8	Sprain Types - First Aid and Management	2
	9	Event planning security and proceedings.	2
III	Common First Aid Interventions		8
	10	Nose Bleeding, Shock, Drowning-First Aid and Management	1
	11	Snake Bite, Insects Bite, Animal Bite- First Aid and Management	2
	12	CPR, Usage of Automated external defibrillator	2
	13	Taping for Sprain, Strain and Dislocation, Managing Fracture	2
	14	Transporting Injured Person	1
IV	Injury Rehabilitation		7
	15	Cryotherapy, Contrast bath, Paraffin Wax	2
	16	Infrared, Ultra Sound, TENS	2
	17	Laser Short Wave Diathermy	1
	18	Physical Therapy - (Own body, Medicine balls, With weight, Theraband)	2
V	Practical orientation and training		30
	19	Examination of casualty, CPR Demonstration	10
	20	Demonstrate the techniques to support airway, breathing and circulation	10

20	Assignment & Project	10
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Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	To identify the importance of First Aid	U	
CO-2	To describe the Physical and Physiological functioning of the body	R, U	
CO-3	To interpret knowledge regarding injuries and its Management.	U	
CO-4	To apply the knowledge of administer BLS and injured person	An, C	
CO-5	To Demonstrate methods of transportation of injured person	Ap, C	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 2:0:1 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
					(T)	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs:

	PSO 1	PSO 2	PSO 3	PSO4	PSO5	PSO 6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1							2					
CO 2							1		2			
CO 3								1	2			
CO 4											2	1
CO 5												3
CO 6												

Level	Correlation
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Correlation Levels:

-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				
CO 4				
CO 5				
CO 6				

References:-

- INDIAN FIRST AID MANUAL, 2016 (7th edition), AUTHORIZED MANUAL – ENGLISH VERSION
- First Aid Manual 11th Edition: Written and Authorised by the UK's Leading First Aid Providers Flex bound
- A Complete Guide to Family Safety and First Aid by Dr Ashwani Bhardwaj
- Manual of FIRST AID: Management of General injuries, Sports injuries and Common Ailments Paperback.
- A Hand Book on first aid Practices, by Dr. Mekkanti Manasa Rekha

Discipline	PHYSICAL EDUCATION				
Course Code	UK5SECPES301				
Course Title	YOGA AND HEALTHY LIVING				
Type of Course	SKILL ENHANCEMENT COURSE (SEC)				
Semester	IV				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	2 hours	-	2 hours	4
Pre-requisites					
Course Summary	<p>Yoga is the art and science of living, and is concerned with the evolution of mind and body. Therefore, yoga incorporates a system of disciplines for furthering an integrated development of all aspects of the individual. The emphasis of the course is on positive physical and psychological wellness. The focus is on physical postures or asanas and pranayama or breathing techniques. Through the practice of physical postures or asanas, the spinal column as well as the muscles and joints are maintained in a healthy and supple state. Pranayama is important not only for optimizing breathing potential but also for cultivating emotional stability and freeing mental and creative energies in a constructive way. The practice of Yoga creates a balance in the total personality. This course has been structured as a skills training programme.</p>				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Introduction to common yogic asanas and stretching exercise		7
	1	Meaning Aims and objectives of yoga, Introduction to common yogic asanas (Maily Sitting Standing and lying)	1
	2	Classification and importance of Yogic Asanas (Sitting, Standing,lying)	2
	3	Introduction to Exercise and stretching exercise its aims and objectives.	2
	4	Classification and types of Stretching exercise (Static and Dynamic Stretching -Sitting, Standing, Lying).	2
II	Physical and Physiological benefits of common yogic asanas and Stretching exercise		7
	5	Theoretical framework of selected yogic asanas and similar Stretching exercises. (Practice guidelines of yogic asanas versus stretching Exercises) Students must be able to understand the dissimilarities and similarities of standard operating procedure for yogic asanas and stretching exercises	2
	6	Identifying and understanding major muscle groups involved in asanas and similar stretching exercises Methodology and schedule for Yogic asanas and Stretching exercises (FITT principle)	3
	7	Physical benefits of yogic asanas and stretching exercise (Flexibility, Strength, Posture, Balance)	1
	8	Physiological benefits of Stretching exercises and yogic asanas (Systemic stress - BP, Respiratory rate, Immune system, Digestive function, Muscle tension, Sleep,)	1
III	Practical on yogic asanas and Stretching exercise		30

	9	Stretching exercises for the Neck and Shoulder. (Asanas & Exercises)	5
	10	Stretching exercises for the Upper back and Thorax (Asanas & Exercises)	5
	11	Stretching exercise for the Lower back and abdomen (Asanas & Exercises)	5
	12	Stretching exercises for the Hip and Lower limb (Asanas & Exercises)	5
	13	Relaxation and Breathing Techniques	10
IV	Advanced knowledge of Yogic techniques - (Theory class by experts)		7
	14	Asanas combination Standing (Vrikshasana , Ardha Chakrasana, Trikonasana, Veera Bhadrasana , Pada Hasthasana)	3
	15	Combinations of asana Sitting (Vajrasana, Padmasana Gomukhasana Ardha Matsyendrasana , Paschimothasana)	2
	16	Combination of lying asanas (Salabhasana , Bhujangasana, Uthānāpādaśana Halasana, Dhanurasana)	2
V	Psychological effect of asanas and stretching exercises		5
	16	Benefits related to hormone imbalance, Depression, Anxiety, Stress, Mood swing etc...	2
	17	Transformative effects of asanas practice (Physical, Mental & Spiritual)	1
	18	Instructional and Demonstrational projects Seminars and preparation of records etc.	2

Course Outcomes

CO	CO Statement		Cognitive Level	Knowledge Category
CO1	Identify the fundamentals (Aims and objectives) of common yogic asanas and similar stretching exercises in practice		U	C
CO2	Identify scientific information about Physical and Physiological benefits of practicing yoga poses and stretching exercises, its methodology, physical and physiological benefits, promotion of- flexibility, strength, relaxation, and overall health.		U	C
CO3	Demonstrate the knowledge and skill, define appropriate resource for further learning of Yogic exercises and stretching exercises		Ap	P
CO4	Identify information gathered about yogic exercises and stretching exercises objectively, Draw reasonable conclusions about them.		Ap	C
CO5	Practice the skill acquired about Yogic exercises a stretching exercises for Instructional and demonstrational Purpose		Ap	C

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: YOGA AND HEALTHY LIVING Credits: 2:0:1 (Lecture:

Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1						
2						
3						

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PO1	PO2	PO3	PO4	PO5	PO6
CO 1							2		1			
CO 2							2					
CO 3							1		2			
CO 4							1					2
CO 5									2		1	
CO 6												

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations

CO 1	✓			✓
CO 2	✓			✓
CO 3	✓			✓
CO 4		✓		✓
CO 5		✓		✓
CO 6			✓	

Reference

1. Hatha Yoga Pradipika by Swami Mukthibodhananda, Publishers : Yoga publication trust, Munger, Bihar.
2. Hatha Yoga Pradipika (Malayalam), AbeBooks
3. The grandha samhitha, A treatise of Hatha Yoga by Sris Chandra Vasu
4. Four chapters on freedom, Commentary on the yoga sutras of sage Pathanjali by swami sthyananda saraswathi.
5. Stretching Anatomy Paperback – Illustrated, by Arnold G. Nelson (Author), Jouko Kokkonen (Author)
6. STRETCHING TO STAY YOUNG Paperback – by Jessica Matthews (Author)
7. Stretching for fitness, health and performance, Goodwill Publishing House, Dr Christopher A Oswald & Dr Stanley N Bosco.
8. <https://ncert.nic.in/pdf/publication/otherpublications/tiyhwlp1.pdf>
9. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3193654/>
10. <https://ncert.nic.in/textbook/pdf/jehp108.pdf>
11. https://files.nccih.nih.gov/s3fs-public/Yoga-eBook-2020_06_FINAL_508.pdf
12. <https://www.asterhospitals.in/blogs-events-news/aster-medcity-kochi/best-stretching-exercises-stay-fit-home>
13. <https://www.slideshare.net/ShvetikaKaul/physiology-of-stretching>
14. https://www.researchgate.net/publication/233686755_Stretching_Mechanisms_and_Benefits_for_Sport_Performance_and_Injury_Prevention

SEMESTER VI

Discipline	PHYSICAL EDUCATION				
Course Code	UK6SECPE300				
Course Title	ESSENTIALS OF EXERCISE AND STRENGTH TRAINING				
Type of Course	SKILL ENHANCEMENT COURSE (SEC)				
Semester	VI Semester				
Academic Level	300 – 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	2 hours	-	2 hours	4
Pre-requisites					
Course Summary	<p>“Essentials of Exercise and Strength Training” is a dynamic course designed to equip young students with the fundamental principles and practical skills necessary to excel in the field of strength training and fitness. Through a comprehensive curriculum blending theory and hands- on application, students will delve into the core concepts of strength training, including anatomy, physiology, biomechanics, and exercise programming. They will learn to design personalized training programs tailored to individual needs and goals, while mastering proper exercise techniques and safety protocols. Additionally, students will explore exciting career opportunities in the fitness industry and develop essential networking and job search strategies to kick start their professional journey. This course offers a holistic approach to strength training education, empowering students to embark on a fulfilling career path while fostering lifelong habits of health and wellness.</p>				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Introduction to Strength Training and Exercise science (Theory)		8
	1	Understanding Strength Training 1.Importance and benefits of strength training 2. Overview of key terminology and concepts	1
	2	Learning on the structure, basic functions, importance and impact of exercise on 1. Cardiovascular system, 2. Respiratory system, (external and internal respiration) 3. Musculoskeletal system. (muscle Adaptation- hypertrophy, neuromuscular adaptation, muscle fibre type, metabolic adaptation, role of hormone, strength gain, endurance improvement, and recovery)	3

	3	<p>Nutrition and energy systems in strength training.</p> <ol style="list-style-type: none"> 1. Introduction to Nutrition 2. Digestion and absorption 3. Energy metabolism (ATP-PCr, Anaerobic Glycolytic and Aerobic system) 4. Role of macro nutrients and timings 5. Controlling diet, hydration, supplementation and exercise 	4
II	Exercise Training Methods and Principles (Theory)		13
	1	<p>Principles of Exercise Training</p> <ol style="list-style-type: none"> 1. methods of specificity 2. methods of Progressive overload 3. methods of recovery 4. methods of reversibility 5. methods of balance 	4
	2	<p>Advanced training techniques</p> <ol style="list-style-type: none"> 1. Periodization- Macro, Meso and Micro cycle 2. Advanced overload technique (Different sets, repetition, rest, velocity-based training) 3. Eccentric training (slow eccentric, accentuated eccentric, eccentric overload training) 4. Isometric training (Static hold, maximal effort isometric) 5. Blood flow restriction (BFR) training. 	4
	3	<p>Strength Training Program Design Fundamentals</p> <ol style="list-style-type: none"> 1. Assessment and goal setting 2. Exercise selection and programme customisation 3. Training variables and progressive overload. 4. Periodization and training phases. 5. Recovery and regeneration strategies 6. Monitoring and programme adjustment 7. Safety protocol and injury prevention. 	5
III	Application of Strength Training (Practical)		20
	1	<p>Program Design Principles</p> <ol style="list-style-type: none"> 1. Program Design Principles: 2. Overview of program design principles 3. Hands-on experience importance 4. Key elements of effective program design 	8
	2	<p>Hands-On Program Design Workshop.</p> <ol style="list-style-type: none"> 1. Practical program design activities 2. Group-based strength training program design 3. Incorporating periodization and progression 	6
	3	<p>Practical Delivery of Strength Training Programs:</p> <ol style="list-style-type: none"> 1. Live demonstration sessions 2. Proper exercise techniques and form 3. Hands-on modifications and progressions 4. Troubleshooting common issues 	6
IV	Advanced Strength Training Techniques, Special Populations, and Weight Control (Practical)		10

	1	Practical Application of Advanced Training Methods for Weight Control: 1. Demonstrating advanced techniques 2. High-intensity interval training (HIIT) 3. Emphasizing proper technique and intensity	4
	2	Hands-On Strength Training for Weight Control in Special Populations: 1. Exercises and modifications for special populations 2. Designing tailored strength training sessions 3. Emphasizing safety and individualization	6
	Business and Professional Development (Theory)		9
V	1	Client Retention and Engagement Strategies: 1. Building long-term relationships 2. Creating engaging workouts 3. Managing client expectations	3
	2	Marketing and Branding for Personal Trainers: 1. Developing a personal brand 2. Marketing strategies 3. Utilizing social media for promotion	3
	3	Continuing Education and Career Growth: 1. Staying current with industry trends 2. Pursuing certifications and specializations 3. Networking and professional development opportunities	3

COURSE OUTCOMES

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Students will demonstrate an understanding of the importance and benefits of strength training, including its impact on various physiological systems such as the cardiovascular, respiratory, and musculoskeletal systems.- Students will be able to explain key terminology and concepts related to strength training and exercise science.	U	
CO-2	Mastery of Exercise Training Methods and Principles:- Students will apply principles of exercise training, including specificity, progressive overload, recovery, reversibility, and balance, to design effective strength training programs. -Students will demonstrate knowledge of advanced training techniques such as periodization, different overload methods, eccentric training, isometric training, and blood flow restriction training.	AP, U	

CO-3	<p>Proficiency in Strength Training Program Design:</p> <ul style="list-style-type: none"> - Students will assess individual needs and goals to design personalized strength training programs, including exercise selection, customization, and progression. - Students will understand the importance of periodization, training phases, recovery strategies, and injury prevention in program design. 	AP, E	practical
CO-4	<p>Application of Strength Training Principles in Practice:</p> <ul style="list-style-type: none"> - Students will demonstrate the ability to apply program design principles in practical settings through hands-on workshops and live demonstration sessions. - Students will exhibit proficiency in proper exercise techniques, form, modification, progression, and troubleshooting common issues in strength training programs. 	AP, E	practical
CO-5	<p>Integration of Advanced Techniques and Considerations:</p> <ul style="list-style-type: none"> - Students will integrate advanced training methods for weight control and special populations into strength training programs, including high-intensity interval training (HIIT) and tailored sessions for diverse populations. - Students will prioritize safety, individualization, and proper technique while implementing advanced techniques and modifications. 	C,AP	

R-Remember, U-Understand, Ap-Apply, An-Analyze, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Name of the Course: Credits: 2:0:2 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
1	U		R, U		L,T	
2	AP, U		R, U		L,T	
3	AP, E			AP,AN,C	T	P
4	AP, E			AP, C	T	P
5	C,AP			AN, E	L,T	

F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with and POs :

	PO1	PO2	PO3	PO4	PO5	PO 6	PO 7	PO 8
CO 1	3	3	3	3	2	1	2	2
CO 2	3	3	3	2	2	1	2	2
CO 3	3	3	2	2	2	1	1	1
CO 4	2	3	2	3	3	2	2	2
CO 5	2	2	1	3	3	3	2	2

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment/ Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics :

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1	✓			✓
CO 2	✓			✓
CO 3			✓	✓
CO 4		✓	✓	✓
CO 5	✓	✓		✓

References:

Module-I

1. Essentials of Strength Training: Practical Aspects, A. Singh, Jaypee Brothers Medical Publishers.
2. Understanding Exercise Physiology: An Indian Perspective ,M. Kapoor Wolters Kluwer India Pvt Ltd.
3. Exercise Physiology: An Indian Perspective A. Sharma, P. Gaurav, Peepee Publishers & Distributors Pvt Ltd.
4. Essentials of Strength Training and Conditioning ,T. R. Baechle, R. W. Earle, Human Kinetics (4th ed.)
5. Exercise Physiology: Nutrition, Energy, and Human Performance, W. D. McArdle, F. I. Katch, V. L. Katch ,Lippincott Williams & Wilkins (8th ed.)

Module-II

1. Advanced Concepts of Strength Training, R. Patil, S. Shrikhande, Indian Journals
2. Principles and Practices of Exercise Physiology ,V. Desai ,Jaypee Brothers Medical Publishers
3. Fundamentals of Resistance Training: Indian Context ,K. Ratnaparkhi Sterling Publishers Pvt. Ltd
4. Essentials of Strength Training and Conditioning ,T. R. Baechle, R. W. Earle, Human Kinetics (4th ed.)
5. Periodization: Theory and Methodology of Training ,T. O. Bompa, G. G. Haff, Human Kinetics (5th ed.)

Module-III

1. Practical Strength Training: Indian Approach, S. Kamath Laxmi Publications
2. Strength Training Techniques: Indian Perspective ,V. Mhatre ,Sterling Publishers Pvt. Ltd
3. Applied Strength Training: Indian Scenarios ,J. D'souza ,Jaypee Brothers Medical Publishers
4. Principles and Practice of Resistance Training, M. H. Stone, M. Stone, W. A. Sands, B. Sands, Human Kinetics
5. Bodyweight Strength Training Anatomy ,B. Contreras ,Human Kinetics

Module-IV

1. Advanced Strength Training for Special Populations,S. K. Pandey, Jaypee Brothers Medical Publishers
2. Weight Control and Strength Training: Indian Practices ,A. Kapoor, Wolters Kluwer India Pvt Ltd
3. Advanced Strength Training Techniques: Insights from Indian Coaches, P. Singh ,Peepee Publishers & Distributors Pvt Ltd
4. Stronger, Leaner, Faster: The Scientific Principles of Strength Training, B. J. Schoenfeld, Human Kinetics
5. ACSM's Foundations of Strength Training and Conditioning, N. A. Ratamess ,(Ed.) Wolters Kluwer

Module-V

1. Business Strategies for Fitness Professionals: Indian Edition, S. AgarwalLaxmi Publications
2. Marketing and Branding for Fitness Professionals: Indian Context, R. Kapoor Jaypee Brothers Medical Publishers
3. Professional Development in the Indian Fitness Industry: Strategies for Success, A. Jain Sterling Publishers Pvt. Ltd
4. Mind Over Money: The Psychology of Wealth and How to Profit from It, D. Canole, M. Lawrence, Hay House, Inc.
5. Personal Trainer Pocketbook: A Handy Reference for All Your Daily Questions, J. Goodman, Bloomsbury Publishing.
6. The New Rules of Marketing & PR: How to Use Social Media, Online Video, Mobile Applications, Blogs, News Releases, and Viral Marketing to Reach Buyers Directly: D. M. Scott, Wiley.

Discipline	PHYSICAL EDUCATION				
Course Code	UK6SECPES300				
Course Title	CAREER OPPORTUNITIES IN SPORTS				
Type of Course	SKILL ENHANCEMENT COURSE (SEC)				
Semester	VI Semester				
Academic Level	300 - 399				
Course Details	Credit	Lecture per week	Tutorial per week	Practical per week	Total Hours/Week
	3	2 hours	0	1	3
Pre-requisites	NIL				
Course Summary	<p>This course provides a multidisciplinary examination of the intricate relationship between sports, economy, manufacturing, and technology. Students will delve into the economic principles underpinning the sports industry, analysing revenue streams, sponsorship deals, and the impact of globalization. Manufacturing processes and business strategies within the sports sector will be explored, highlighting innovation and corporate interventions shaping the industry.</p> <p>The curriculum encompasses sports engineering principles, examining how technology enhances performance, safety, and fan experience. Students will explore career pathways in sports journalism, coaching, analysis, and sports organizing, gaining insights into the diverse roles within the field. Additionally, an in-depth study of sports regulations and the integration of AI in sports will be covered, providing a comprehensive understanding of the evolving landscape. Through lectures, case studies, and practical exercises, students will develop critical thinking skills and analytical frameworks essential for success in the dynamic world of sports.</p>				

Detailed Syllabus:

Module	Unit	Content	Hrs
I	Career Opportunities in the Field of Sports		10
	1.	General awareness of Sports and Games	3
	2.	Popular Sports Competitions-District, State, National and International	3
	3.	Career enhancement- Personal Trainer, Gym Trainer, Exercise Prescriptionist.	2
	4.	Sports Organization and Management -Technical Officials, Team Managers, Sport Personal Manager, Sport event management, Sports competition organizer, Sports masseur, Sports Scouting	2
II	Professionalism in Sports Administration and Organization		10
	5.	Basic Principles of Management and Administration	2
	6.	Organization Structure-Meaning, Types and applications	2
	7.	Management of Sports- Goal Setting, Leadership, Decision Making, Group and team formations, Delivery of Services	2
	8.	Sports Management Software-ERP/Event, Facility, Other Related Operations	2
III	Sports Economy		8

	9.	Blue economy for sustainable use of ocean resources for economic growth, ecofriendly marine sports, sailing, Yachting, Surfing, Deep Sea Dive etc.	2
	10.	Manufacturing of Sports Goods	1
	11.	Corporate intervention and economic boom in sports	2
	12.	Adventure Sports- paragliding, mountaineering, Para Sailing etc.	3
IV	Technology and AI in Sports		8
	13.	Performance tracking and Analysis	2
	14.	Equipment innovation	2
	15.	Fan engagement and viewing experience	2
	16.	Use of health apps in mobiles	2
V	Sports Engineering and Innovations		09
	17.	Biomechanical Analysis, Material Science and equipment innovation	2
	18.	Fluid dynamics and aerodynamics	2
	19.	Sports surfaces and facility Design	3
	20.	Wearable technology and Performance monitoring	2

Course Outcomes

No.	Upon completion of the course the graduate will be able to	Cognitive Level	PSO addressed
CO-1	Explain the rules and regulations of major sports and their competitions. Explore indigenous sports of India alongside the history of the Olympics. Investigate diverse career paths in sports, including personal training, sports management, media, rehabilitation, and specialized sports activities.	R, U,	PSO-1,2
CO-2	Examine the economic aspects of sports, including the blue economy and corporate interventions. Analyse career opportunities in sports manufacturing and adventure sports. Explore the role of technology and AI in sports, including performance tracking, equipment innovation, fan engagement, and health apps.	R, U, Ap	
CO-3	Critically explain biomechanical analysis and material science for sports equipment. Explore fluid dynamics and aerodynamics in sports. Design sports surfaces, facilities, and wearable technology for improved performance and safety.	R, U, Ap, An	

R-Remember, U-Understand, Ap-Apply, An-Analyse, E-Evaluate, C-Create

Note: 1 or 2 COs/module

Credits: 3:0:0 (Lecture: Tutorial: Practical)

CO No.	CO	PO/PSO	Cognitive Level	Knowledge Category	Lecture (L)/Tutorial (T)	Practical (P)
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F-Factual, C- Conceptual, P-Procedural, M-Metacognitive

Mapping of COs with PSOs and POs :

	PSO1	PSO2	PSO3	PSO4	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1					3	2	2	3	2	3	3	3
CO 2					2	3	2	3	3	2	3	2
CO 3					2	3	3	2	3	3	2	2

Correlation Levels:

Level	Correlation
-	Nil
1	Slightly / Low
2	Moderate / Medium
3	Substantial / High

Assessment Rubrics:

- Quiz / Assignment / Discussion / Seminar
- Midterm Exam
- Programming Assignments
- Final Exam

Mapping of COs to Assessment Rubrics:

	Internal Exam	Assignment	Project Evaluation	End Semester Examinations
CO 1				
CO 2				
CO 3				
CO 4				

CO 5				
CO 6				

REFERENCES

- "Sports Rules Encyclopedia" by Allan Gottlieb
- "The Ultimate Guide to Sports Marketing" by Stedman Graham and Lisa Delpy Neirotti
- "Indian Sport: Tradition and Contemporary Trends" by Boria Majumdar and J. A. Mangan
- "The Modern Olympics: A Struggle for Revival" by David C. Young
- "Career Opportunities in Sports Management" by Shelly Field
- "Sport Management: Principles and Applications" by Russell Hoye, Aaron C.T. Smith, Matthew Nicholson, and Bob Stewart
- "Sports Journalism: An Introduction to Reporting and Writing" by Kathryn T. Stofer and James R. Schaffer
- "Sports Medicine and Rehabilitation: A Sport-Specific Approach" by Ralph M. Buschbacher and Nathan D. Schilaty
- "The Sports Coaching Process: Principles and Practice" by Jim Denison and Louie J. D'Amico
- "Blue Economy Handbook: From Theory to Practice" by Darian McBain and Annabelle Gundlach
- "Sport Business Management: Decision Making Around the Globe" by Hans Westerbeek, Aaron C.T. Smith, Paul Turner, and Bob Stewart
- "Sports Economics" by Roger D. Blair and Thomas C. Gittings
- "Adventure Tourism: The New Frontier" by Stephen L. J. Smith, Karl R. Stock, and Peter F. Varley
- "Sports Analytics and Data Science: Winning the Game with Methods and Models" by Thomas W. Miller
- "Innovation and Entrepreneurship in the Sport Industry" by R. Brian Crow and John J. White
- "Fan Engagement in Professional Sports: A Social Media Perspective" by Aaron C.T. Smith and Brad Hill
- "Health and Fitness Apps: Providing Healthy Choices and Enhancing Well-Being" by Stephen J. Langford
- "Biomechanics of Sport and Exercise" by Peter M. McGinnis
- "Fluid Dynamics: Theoretical and Computational Approaches" by Clement Kleinstreuer
- "Sports Facility Management: Organizing Events and Mitigating Risks" by Amie Shao and Gil Fried
- "Wearable Technology in Sport: Athlete Performance Analytics and Management" by Peter O'Donoghue and Peter K. W. Lee

Online Courses

Students have options to earn credit by completing quality – assured learning modes- MOOC,online programme offered on the Study Webs of Active Learning for Young Aspiring Minds(Swayam: www.swayam.gov.in) or other online educational platforms approved by the Board of Studies in Hindi from time to time.

Students shall be advised to opt for such online/MOOC courses which will have a comprehensive graded evaluation with proper grades and grade points. The difficulty level of all the for consecutive years is being maintained.