

**THE MAHATMA GANDHI UNIVERSITY
UNDERGRADUATE PROGRAMMES (HONOURS)
SYLLABUS**

MGU-UGP (Honours)

(2024 Admission Onwards)



Faculty: Physical Education and Sports Sciences

Expert Committee: Physical Education

Subject: Fitness Management

**Mahatma Gandhi University
Priyadarshini Hills
Kottayam – 686560, Kerala, India**

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Name of the Minor: **Fitness Management**

Semester 1

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG1DSCFIM100	Health And Fitness Education*	DSC B	4	5	3		2	
MG1DSCFIM101	General Conditioning and Recreation	DSC B	4	5	3		2	5

*For those who are opting Fitness Management as a minor from other programme

Semester: 2

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG2DSCFIM100	Introduction To Fitness Training and Management*	DSC B	4	5	3		2	
MG2DSCFIM101	Fundamentals Of Sports and Games (Kho-Kho, Kabaddi, Weightlifting, Wrestling, Judo)	DSC B	4	5	3		2	5

*For those who are opting Fitness Management as a minor from other programme

Semester: 3

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG3DSCFIM200	Yogic Sciences and Practices*	DSC B	4	5	3		2	5

*For those who are opting Fitness Management as a minor from other programmes

Semester: 4

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG4DSCFIM200	Exercise Program Design*	DSC B/ DSC C	4	5	3		2	

*For those who are opting Fitness Management as a minor from other programmes

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Semester: 5

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG5DSCFIM300	Gym Instructor Essentials	DSC B	4	5	3		2	

Semester: 6

Course Code	Title of the Course	Type of the Course DSC, MDC, SEC etc.	Credit	Hours/ week	Hour Distribution /week			
					L	T	P	O
MG6DSCFIM300	Performance Analysis In Sports And Games	DSC B	4	5	3		2	5

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Programme						
Course Name	Health and Fitness Education					
Type of Course	DSC B					
Course Code	MG1DSCFIM100					
Course Level	100					
Course Summary	Health and fitness education course aims to provide students with a comprehensive understanding of the principles and practices related to maintain a healthy lifestyle, promoting fitness, and preventing health-related issues. Students may also gain practical skills and knowledge that can be applied to develop personal wellness or pursue a career in health and fitness-related fields.					
Semester	1	Credits			4	Total Hours
Course Details	Learning Approach Lecture and practical	Lecture 3	Tutorial	Practical 1	Others	
Pre-requisites, if any						

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Understand the concept of health, fitness, and health education	U	1
2	Understand the prevention and control of communicable and non-communicable diseases	U	6
3	Analyze the health issues	An	6
4	Understand hygiene and health services	U	1
5	Learn to assess health and prepare health records	C	1,2, 5 & 10
6	Evaluate the role of public health agencies and their interventions.	E	1
7	Demonstrate proper exercise techniques and safety considerations	S	5 & 8
8	Help participants recognize the connection between physical activity and mental health, with a goal of reducing stress, anxiety, and promoting overall emotional well-being.	A	1 & 2

***Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)**

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1 Introduction to Health and Fitness	1.1	Definition, concept, dimensions, spectrum of health and factors affecting health. Health education and its significance	4	1
	1.2	Importance of a healthy lifestyle Meaning, definition, importance of fitness in modern era.	3	1
	1.3	Type of physical fitness and components - health, performance related, biological growth factors through fitness.	4	1
2 Health issues	2.1	Communicable and Non-communicable diseases Methods of disease transmission: direct and indirect Prevention and control strategies for diseases	4	2 & 4
	2.2	Immunization and vaccination Programmes: Importance of vaccines in preventing diseases, Types of vaccines, public health strategies for vaccination Programmes	3	2&3
	2.3	Obesity, Malnutrition, Food Adulteration, Explosive population Concept of BMI, calculation and checking Balanced diet, dietary guidelines for healthy eating, Calorie calculation.	4	4, 5
3 Health Services	3.1	Health services and its objectives, School Health Services Role of health education in schools Importance of school health services Medical check-up/examination	4	4, 5 & 6
	3.2	Personal hygiene: Importance, factors, techniques Environment hygiene for schools: Way of maintaining	4	4

		and creating healthy school environment		
	3.3	Nutritional services in India: polices and services Health record: Concept, guidelines, and preparation	3	5 & 6
4 Public Health and Community Health	4.1	Concept of public health Scope and objectives of community health assessment Public health programs by public and private sectors Community health problems and remedial measures	4	3 & 6
	4.2	Physical exercises and health promotion: Types of exercises, safety considerations in exercise programs Recommended guidelines for physical activity- warm up, warm down, sportswear, surface, equipment, environmental condition, duration, diet, rest, and relaxation.	4	1 & 7
	4.3	Practices for healthy habits: Stress management, time management, meditation	4	8
	4.4 Practical	Health screening: procedure and techniques Health assessments Health and fitness screenings Measurement of height & weight, basic Strength, endurance and flexibility, cardio respiratory fitness, Health Related Fitness	30	3,5 & 7
5 Teacher Specific Component				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> ● Lecture (Chalk & Board, Power Point presentation) ● Group discussion. ● Peer teaching ● Demonstration ● Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
	End Semester Examination (ESE) Total Mark-85 ESE Practical -35 marks (Viva, presentation, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay -4x5).

References

- Lorraine Cale, Jo Harris & Ming Hung Chen (2014) Monitoring health, activity and fitness in physical education: its current and future state of health, Sport, Education and Society
- AK, D. U. (1992). Physical fitness: How to Develop.
- Garcia, L. M. (2021). Health Education and Promotion: Strategies for Improving Public Health (3rd ed.). Wiley.

SUGGESTED READINGS

- Hoeger, W., & Hoeger, S. Lifetime physical fitness & wellness. ISBN-13: 978-1285733142. ISBN-10: 1285733142
- Hoeger, W., & Hoeger, S. Fitness & wellness. (2013) Belmont, CA: 10: 1285733150.
- Greenberg, J., Dintiman, G., & Myers Oakes, B. (2004). Physical fitness and wellness.
- Health Behavior and Health Education: Theory, Research, and Practice" by Karen Glanz, Barbara K. Rimer, and K. Viswanath
- Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990



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Programme						
Course Name	General Conditioning and Recreation					
Type of Course	DSC B					
Course Code	MG1DSCFIM101					
Course Level	100					
Course Summary	General conditioning in physical education typically covers various aspects of fitness training, including cardiovascular endurance, muscular strength, flexibility, balance, speed, and coordination. Practical topics often include exercises, drills, and techniques focused on improving these areas, such as running for cardiovascular endurance, weightlifting for strength, stretching for flexibility, and drills for coordination. The course aims to provide a comprehensive understanding of physical fitness and its application to overall health and performance.					
Semester	1	Credits			4	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		3		1	5	150
Pre-requisites, if any	Foundation course Required					

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Improved Fitness Levels Enhancing cardiovascular endurance, muscular strength, flexibility, and body composition through targeted exercises and routines.	K, U	3
2	Understanding Exercise Principles: Grasping fundamental principles of exercise physiology, learning how different exercises impact the body, and understanding the importance of proper form and technique.	U	10
3	Skill Development: Acquiring skills in designing and implementing conditioning programs, utilizing various equipment, and adapting exercises for different fitness levels.	C	3
4	Injury Prevention: Understanding injury prevention techniques, proper warm-up and cool-down protocols, and recognizing the importance of rest and recovery in a conditioning routine.	U, I, E	2

***Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)**

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1 Basics of Conditioning	1.1	Introduction, Definition, and importance of General conditioning in Physical education and sports	3	2
	1.2	Principles of Resistance training - lifting Techniques, FITT Formula, Target, Heart Rate Calculation,	4	2
	1.3	Karvonen Method Formula, Percentage of Maximal Heart Rate,	5	1
	1.4	High Intensity Interval training, Basic Stretching Rules	3	34
2 Endurance Development Training	2.1	Calisthenics, Slow, Medium and Fast continuance Run, long Slow distance Run, Interval Training, Fartlek Training, Circuit Training, Repetitive Training	15	1,2
	2.2	Aerobics, Zumba, Cycling, Swimming, Skipping		1,2
3 Strength and Power (P)	3.1	Exercise for own body weight- Burpee, Mountain climb,	15	1,3
	3.2	Pushups, Pull-ups, Explosive lunges, Super Man, Iron Man, Sit-Ups Jump, Clapp,		3,4
	3.3	Push-Ups, Bird Dogs, Bicycle Crunch, Air Squat, Sit-ups To Push Ups		3,4
4 Flexibility, Balance and Agility Development (P) Coordination and speed development (P)	4.1	Aerobics, Zumba, Cycling, Swimming, Skipping	10	2,3
	4.2	Power and Explosive exercise - Power Snatch, hang power snatch, Power Clean hang Power clan, Push Press, Split Jerk, Plyometrics		3,4
	4.3	Activity	20	3
	4.4	Strength Exercise - Free Weights, Machines, exercise bands, Medicine balls Stability balls, Rope workout, Core Training, HITT	10	4
	4.5	Activity	20	4
	4.6	Static Stretching, Dynamic Stretching , Partner assisted Stretching, Stretching aids and Equipment	10	1

		<ul style="list-style-type: none"> • Heal to toe walk, one leg stand, Step-Ups , • Cone Agility Drills, ladder Drills, shuttle run, Walking Narrow line, Cart Wheel 		
	4.7	Fartlek , Skipping , Single leg Dead lift, Medicine ball, Throws, Ladder drills, Basketball Dribbling Circuit, Balance Walk, Bounce Bet Leg, Juggling External objects		3
	4.8	Activity	35	3
5 Teacher Specific Component				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> • Lecture (Chalk & Board, Power Point presentation) • Group discussion. • Peer teaching • Demonstration • Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
	End Semester Examination (ESE) Total Mark - 85 ESE Practical -35 marks (Viva, presentation/ demonstration, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay - 4x5).

References

1. Fleck, Steven J., and William J. Kraemer. "Designing Resistance Training Programs." Human Kinetics, 2014.
2. Baechle, Thomas R., and Roger W. Earle. "Essentials of Strength Training and Conditioning." Human Kinetics, 2008.
3. Haff, G. Gregory, and N. Travis Triplett, editors. "Essentials of Strength Training and Conditioning." 4th ed., Human Kinetics, 2016.

4. Baar, Keith. "Molecular Exercise Physiology: An Introduction." Routledge, 2020.
5. Zatsiorsky, Vladimir M., and William J. Kraemer. "Science and Practice of Strength Training." Human Kinetics, 2020.
6. Stone, Michael H., and Meg Stone. "The Squat Pearls of Wisdom." Lulu Press, 2018.



MGU-UGP (HONOURS)

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Programme						
Course Name	Introduction to Fitness Training and Management					
Type of Course	DSC B					
Course Code	MG2DSCFIM100					
Course Level	100					
Course Summary	"Fitness Training and Management" is a comprehensive course designed to equip individuals with the knowledge and skills necessary for success in the fitness industry. The course is organized into five modules, each addressing key aspects of fitness training and management					
Semester	2	Credits			4	Total Hours
Course Details	Learning Approach Lecture and practical	Lecture 3	Tutorial	Practical 1	Others	
Pre-requisites, if any						

COURSE OUTCOMES (CO)

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CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Demonstrate Proficiency in Fitness Training Techniques	A	1
2	Adapt Training for Diverse Populations	U	6
3	Demonstrate inclusivity in fitness practices, adapting programs for individuals with medical conditions	An	6
4	Master Business and Marketing Skills	U	1
5	Apply Legal and Ethical Considerations in Fitness Management	C	1,2

***Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)**

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1 Introduction to Fitness Training and Management	1.1	Overview of Fitness Industry and Career Paths: Definition and scope of fitness training and management, Exploration of various career paths within the fitness industry, Importance of professional certifications and ongoing education	3	1
	1.2	Principles of Exercise Science Application of exercise science to fitness training	3	1
	1.3	Client Assessment and Goal Setting Techniques for assessing clients' fitness levels Setting realistic and measurable fitness goals Client communication and building rapport	3	1
	1.4	Legal and Ethical Considerations in Fitness Training Compliance with industry regulations and standards Ethical considerations for fitness trainers Risk management and liability issues	3	5
2 Fitness Training Techniques and Program Design	2.1	Strength and Conditioning Principles of strength training Techniques for resistance training Designing strength and conditioning programs	3	2 & 4
	2.2	Cardiovascular Exercise and Endurance Training	3	2&3

		Cardiovascular exercise principles Endurance training techniques Creating effective cardiovascular workout programs		
	2.3	Flexibility and Mobility Training Importance of flexibility and mobility Techniques for improving flexibility Integrating flexibility training into workout programs	4	2,3
	2.4	Functional Training and Core Stability Understanding functional training Core stability exercises and principles Incorporating functional training into fitness programs	10	2,3
3 Specialized Training and Populations	3.1	Training for Special Populations Fitness considerations for special populations (e.g., elderly, pregnant women)	5	3
		Adapting training programs for individuals with medical conditions Inclusive and accessible fitness practices		
	3.2	Sport-Specific Training Principles of sport-specific training Developing training programs for athletes Injury prevention in sports training	10	3
	3.3	Group Training and Class Instruction Leading group fitness classes Motivating and managing group dynamics	5	3

		Safety considerations in group training		
	3.4	Technology in Fitness Training Use of fitness apps and wearables Virtual and online training programs Data analysis for program optimization	10	4
4 Business Management for Fitness Professionals	4.1	Marketing and Branding for Fitness Professionals Building a personal brand as a fitness professional Marketing strategies for attracting clients Social media and online presence	4	5
	4.2	Client Acquisition and Retention Sales techniques for fitness services Building and maintaining client relationships Strategies for client retention	4	5
	4.3	Financial Management for Fitness Professionals Budgeting and financial planning Pricing strategies for personal training services Financial performance analysis	4	5
	4.4	Career Development and Continuing Education Career pathways and advancement in the fitness industry Importance of continuing education and certifications Networking and professional development opportunities	3	5
5 Teacher Specific Component				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> • Lecture (Chalk & Board, Power Point presentation) • Group discussion. • Peer teaching • Demonstration • Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
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References

1. American Council on Exercise (ACE). (2020). ACE Personal Trainer Manual (6th ed.). American Council on Exercise.
2. National Academy of Sports Medicine (NASM). (2019). NASM Essentials of Personal Fitness Training (7th ed.). Jones & Bartlett Learning.
3. Baechle, T. R., & Earle, R. W. (2008). Essentials of Strength Training and Conditioning (3rd ed.). Human Kinetics.
4. Thompson, W. R., Gordon, N. F., & Pescatello, L. S. (Eds.). (2010). ACSM's Guidelines for Exercise Testing and Prescription (8th ed.). Lippincott Williams & Wilkins.
5. Feito, Y., Hoffstetter, W., Serafini, P., & Mangine, G. (2018). ACSM's Resources for the Personal Trainer (5th ed.). Wolters Kluwer.

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Programme						
Course Name	Fundamentals of sports and games (Kho-Kho, Kabaddi, Weightlifting, Wrestling and Judo)					
Type of Course	DSC B					
Course Code	MG2DSCFIM101					
Course Level	100					
Course Summary	This course will enable students to understand the basic skills, strategies, tactics and the way to improve performance. It aims to develop understanding about the rules and regulations, dimensions and marking of the ground/ court, equipment, duties of the officials and coaches (before, during and after the competition), basic skills and techniques, structure and functions of different federations of sports and games (kho-kho, kabaddi, weightlifting, wrestling and judo).					
Semester	2	Credits			4	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		3		1	5	150
Pre-requisites, if any	General fitness					

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Understand the fundamental skills in sports and games (kho-kho, kabaddi, weightlifting, wrestling and judo)	U	10
2	Analyze basic skills in sports and games (kho-kho, kabaddi, weightlifting, wrestling and judo)	An	1
3	Understand the rules & regulations of sports and games (kho-kho, kabaddi, weightlifting, wrestling and judo)	U	10
4	Understand the different playing surfaces, layout and marking of play fields	U, A	1, 2

5	Demonstrate various techniques of sports and games (Kho-Kho, kabaddi, weightlifting, wrestling and judo).	S	10
6	Evaluate various competitions.	E	1
7	Officiate various competitions inof sports and games (kho-kho, kabaddi, weightlifting, wrestling and judo).	A	2, 5
*Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)			

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1 Introduction to sports and games (kho-kho, kabaddi, weightlifting, wrestling and judo).	1.1	Introduction to sports and games: origin, history, terminologies of games	5	1
	1.2	Governing bodies and Important competitions (international and national).	5	1, 3
	1.3	Qualities needed for players.	5	1
2 Fundamental Skills	2.1	Preparatory and basic exercises	10	1,2
	2.2	Training of skills/ techniques.	10	1,2,5
	2.3	Activity	20	2
	2.4	Correction drills, recreation/ leadup activities.	10	2,5
	2.5	Activity	20	2
3 Officiating	3.1	Rules and regulations and it's interpretation	5	3
	3.2	Playing surfaces, layout and marking of play fields	5	4
	3.3	Duties of officials, positions and preparation of play field.	5	3, 6

4 Organization and evaluation of sports	4.1	On field, off- field officiating experiences	10	5,6
	4.2	Activity	35	3
	4.3	Evaluation of competitions	5	5,6
5. Teacher Specific Component				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> • Lecture (Chalk & Board, Power Point presentation) • Group discussion. • Peer teaching • Demonstration • Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
	End Semester Examination (ESE) Total Mark - 85 ESE Practical -35 marks (Viva, presentation, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay - 4x5).

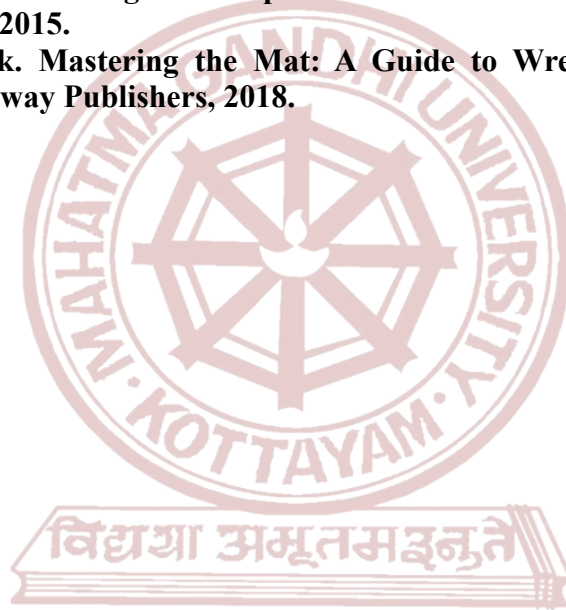
References

1. Kho-Kho federation of India official website
2. Smith, John. "Mastering Kabaddi: Essential Skills and Techniques." KabaddiHub, Kabaddi Skills Publishing, 1 May 2022, www.kabaddihub.com/mastering-kabaddi.
3. Basic Rules of Kabaddi: www.kabaddiworld.org/basic-rules.
4. International Weightlifting Federation (IWF): <https://www.iwf.net/>.
5. International judo federation (IJF): www.ijf.org/IJF.org

SUGGESTED READINGS

1. Smith, John. *Mastering Kho-Kho: A Guide to Essential Skills*. Sports Publishing, 2020.

2. Johnson, Robert. *Kho-Kho Techniques: A Comprehensive Manual*. Fitness Books, 2018.
3. Brown, Michael. *Kho-Kho Drills and Exercises: Building Fundamental Skills*. Training House, 2019.
4. Johnson, Mary. *Kho-Kho: Understanding the Game*. Academic Press, 2015.
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6. Johnson, Mary. *Refereeing Kabaddi: A Comprehensive Guide*. PlayBooks Inc., 2018.
7. Davis, Robert. *Mastering Kabaddi: Officiating Strategies*. SportsPublish, 2015.
8. Wilson, Jessica. *The Kabaddi Referee's Handbook*. GameGuides Ltd., 2017.
9. Smith, John. *The Complete Guide to Wrestling Rules*. New York: Sports Publishing, 2010.
10. Brown, Emily. *Wrestling: A Comprehensive Rulebook*. Chicago: University of Chicago Press, 2015.
11. Williams, Mark. *Mastering the Mat: A Guide to Wrestling Regulations*. Los Angeles: Greenway Publishers, 2018.



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Programme						
Course Name	Yogic Sciences and Practices					
Type of Course	DSC B					
Course Code	MG3DSCFIM200					
Course Level	200					
Course Summary	Yogic Sciences is a comprehensive field of study that encompasses the traditional practices and philosophies of yoga. It goes beyond the physical postures (asanas) commonly associated with yoga and delves into the broader aspects of mental, spiritual, and holistic well-being. A course in Yogic Sciences typically covers a range of topics, providing students with a deep understanding of the principles and practices of yoga					
Semester	3	Credits			4	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		3		1	5	150
Pre-requisites, if any	MGU-UGP (HONOURS)					

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COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Understanding of Yogic Philosophy	U	1,2
2	Application of Yogic principles to personal and Professional life	A	2,10
3	Practical Knowledge of Asanas& Pranayama	S	6,10
4	Analyze the role of yogic sciences and practices in promoting holistic health and well-being.	An	1,6
5	Evaluate the Yogic practices in the treatment of specific medical conditions	E	2,6,10
6	Developing the practice of asanas, pranayama, and other yogic techniques	C	6,9,10

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)*

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1 INTRODUCTION TO YOGIC SCIENCE	1.1	HISTORY AND PHILOSOPHY <ul style="list-style-type: none"> • Meaning and definitions • The Origins and Development of Yoga • The Philosophical Foundations of Yoga • The Role of Yoga in Indian Culture 	4	1
	1.2	PRINCIPLES OF YOGA <ul style="list-style-type: none"> • The Eight Limbs of Yoga 	4	1,2
	1.3	BENEFITS OF YOGA <ul style="list-style-type: none"> • Physical • Physiological • Psychological • Social 	3	1,2

		<ul style="list-style-type: none"> Professional 		
	1.4	<p>TYPES OF YOGA</p> <ul style="list-style-type: none"> Hatha Yoga Karma Yoga jnana Yoga Bhakti Yoga Thandra Yoga 	4	1,2,4
2. INTRODUCTION TO ASANA DIFFERENT STYLES OF ASANA	2.1	<p>Introduction to Standing Asanas, Seated Asanas, Balancing Asanas</p>	8	3,6
	2.2	<p>Introduction to Backbends, Forward Bends</p>	7	3,6
	2.3	<ul style="list-style-type: none"> Standing Asanas Thadasana, Vrikshasana, Trikonasana, Virbhadarasana, Natarajasana Seated Asanas Sukhasana, BaddhaKonasana, Paschimottanasana, Vajrasana. Supine Asanas Savasana, Pavanamuktasana, Halasana, Setu Bandhasana, Matsyasana. Inverted Asanas SalambaSirsasana, Sarvangasana, Dhanurasana, Balancing Asanas Vrikshasana, Tadasana, Utkatasana, Veerabhadrasana, Natarajasana 	10	3,6

		<ul style="list-style-type: none"> • Twisting Asanas Matsyasana, Marichyasana, Parivritta Trikonasana, Bhujangasana. • Backbends Setubandhasana, Dhanurasana, Ustrasana, Chakrasana. • Forward Bends Uttanasana, Parsvottanasana, Janu Sirsasana, Baddha Konasana. 		
2.4	Activity		30	3,6
2.5	ASANA FOR SPECIFIC HEALTH CONDITIONS(P)	<ul style="list-style-type: none"> • Asana for Musculoskeletal Conditions: Bhujangasana, Sethu Bandhasana, Adho Mukha Svanasana • Asana for Respiratory Conditions: Matsyasana, Balasana, trikonasana. • Asana for Cardiovascular Conditions: Tadasana, Virabhadrasana, Halasana. • Asana for Digestive Conditions: Malasana, Ardha Matsyendrasana, Pawanamuktasana. • Asana for Mental Health Conditions: Savasana, Ananda Balasana, Sukhasana. • The Therapeutic Applications of Asana: Low Back Pain, Osteoporosis, Arthritis, Anxiety and Depression, High Blood Pressure, Asthma, Diabetes 	10	2,5,6
2.6	Activity		30	5,6

3 (PRACTICAL) KRIYAS, PRANAYAMAS AND MEDITATION	3.1	KRIYAS(P) <ul style="list-style-type: none"> • The Role of Kriya in Yogic Practice • Benefits of Kriya • Different Kriya Techniques: Neti, Dhauti, Basti, Nauli, Trataka. 	5	3,6
	3.2	Activity	15	3,6
	3.3	PRANAYAMAS <ul style="list-style-type: none"> • The Physiology of Breath and Prana • The Major Pranayama Techniques: Nadishodhana, Kapalabhati, Bhastrika, Bhramari, Sheetali, Ujjayi, Anulom Vilom, Sheetkari. • The Benefits of Pranayama for Physical and Mental Health 	7	3,5,6
	3.4	MEDITATION <ul style="list-style-type: none"> • The Nature of Meditation and Consciousness • The Major Meditation Techniques • The Benefits of Meditation for Mental Well-being • Meditation and the Chakra System • The Advanced Practices of Meditation: Mantra Meditation, Visualization Meditation, Mindfulness Meditation, Guided Meditation, Chakra Meditation, Yoga Nidhra. 	8	2,5,6
4 YOGA IN DAILY LIFE	4.1	APPLYING YOGA PRINCIPLES IN DAILY LIFE <ul style="list-style-type: none"> • Integrating Yoga into Daily Routine • Yoga for Healthy Living 	3	2,3,4,6
	4.2	YOGA FOR STRESS MANAGEMENT AND MENTAL HEALTH	3	2,5

		<ul style="list-style-type: none"> • The Impact of Stress on the Body and Mind • Yoga Techniques for Stress Reduction • Yoga for Anxiety and Depression • Meditation and Mindfulness for Emotional Wellbeing 		
	4.3	YOGA FOR PERFORMANCE IMPROVEMENT <ul style="list-style-type: none"> • Integrating Yoga into Athletic Training • Yoga for Specific Sports • Advanced Yoga Techniques for Athletes • Yoga for Injury Prevention and Recovery 	3	2,4,6
	4.4	YOGA FOR ENERGY AND VITALITY <ul style="list-style-type: none"> • Yoga Poses for Energy and Vitality • Pranayama Techniques for Energy and Vitality • Lifestyle Modifications for Energy and Vitality 	3	2,4
	4.5	YOGA FOR WEIGHT REDUCTION <ul style="list-style-type: none"> • Yoga poses for weight reduction: SuryaNamskar, Veerabhadrasana, Trikonasana, Navasana, ChadhurangaDandasana. • Breathing Technis for weight reduction: Kapalbhati, bhastrika. 	3	
5.				
Teacher Specific Component				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> ● Lecture (Chalk & Board, Power Point presentation) ● Group discussion. ● Peer teaching ● Demonstration ● Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
	End Semester Examination (ESE) Total Mark-85 ESE Practical -35 marks(Viva, presentation, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay -4x5).

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1. Iyengar, B.K.S. (1966). Light on Yoga: Yoga Philosophy and Practice. HarperOne.
2. Desikachar, T.K. (1995). The Heart of Yoga: Developing Physical, Mental, and Spiritual Harmony. Inner Traditions.
3. Flood, G. (1996). An Introduction to Hinduism. Cambridge University Press.
4. Eliade, M. (1969). Yoga: Immortality and Freedom. Princeton University Press.

SUGGESTED READINGS

"The Heart of Yoga: Developing a Personal Practice" by T.K.V. Desikachar

Syllabus



Mahatma Gandhi University Kottayam

Programme						
Course Name	Exercise Program Design					
Type of Course	DSC B/ DSC C					
Course Code	MG4DSCFIM200					
Course Level	200-299					
Course Summary	This course is to design exercise programmes, Planning of exercise programme for the growing phase from childhood to adolescence, Understanding the changes with aging and designing physical activity, introducing special exercise pattern for women, Planning exercise programme for special population					
Semester	4	Credits			4	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		3		1		75
Pre-requisites, if any	Basic knowledge about human body, structure and exercise					

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Participants will acquire a comprehensive understanding of exercise programmes	K	1,2
2	To acquire knowledge about safety guidelines for exercise training program	U	10, 8,3
3	To acquire knowledge about women health, Life style diseases and management	U,E	3,2,1,10
4	Participants will understand skills in exercise design	An, C	2,10,
5	To acquire practical knowledge in implementing exercise programme for women and special population	An, C, S	7,6,3, 2

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)*

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
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1 Program designing for cardio respiratory and weight Training	1.1	Fitness Training program & Performance Training program	4	1
	1.2	Weight Training programme and Functional Training	4	1
	1.3	Program design for movement training, Load, and Speed training	4	1
2 Exercise for Children , Youth & elderly individuals	2.1	Response to exercise in children and youth	3	5
	2.2	Special Considerations during training for children and youth	3	5
	2.3	Structural changes with aging	3	1
	2.4	Exercise guideline for elderly individuals	3	2
3 Special exercise pattern for women and special population	3.1	Women health parameters, lifestyle of Women, Exercise in prevention and treatment of osteoporosis	2	3
	3.2	General Exercise Safety Guidelines for Pregnant Women. Pregnancy- during, post exercise programme & Female athlete triad	3	2,3
	3.3	Exercise design for population in cardiac rehabilitation. Program design for chronic diseases-diabetes,	3	3,4,5
	3.4	Exercise program for Osteoporosis & Arthritis, Cancer & Asthmatic Patient	3	3,4,5
4 Exercise Program Design	4.1	Designing basic training program	2	4,5
	4.2	Designing exercise programme for Children and Youth & pregnancy women	2	3,4,5
	4.3	Exercise Program design for individuals with mental health challenges	2	3,5
	4.4	Designing exercise programme for older adults, monitoring the workout progress, track the progress, visual monitoring	2	4,5
	4.5	Program design for prevention and treatment of obesity.	2	3,4,5
	4.6	Case study on successful exercise design	30	
5 Teacher specific components				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> • Lecture (Chalk & Board, Power Point presentation) • Group discussion. • Peer teaching • Demonstration Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
	End Semester Examination ESE Practical -35 marks (Viva, presentation, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay -4x5)

References

1. Fitness Professional's Handbook 7th Edition, Edward Howley, Dixie Thompson, Human Kinetics
2. Thomas D Fahey, Paul M Insel, Wlton T Roth, Clarie E A Insel, Fit & Well, Core concepts and labs in Physical Fitness and Wellness, 12th Edition, Mc Graw Hill Education
3. American College of Sports Medicine. 2003. Exercise Management for Persons With Chronic Diseases and Disabilities, 3rd ed. Champaign, IL: Human Kinetics
4. American Heart Association. 2001. Exercise standards for testing and training: A statement for healthcare professionals from the American Heart Association. Circulation 104 (14): 1694-1740.

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**Mahatma Gandhi University
Kottayam**

Programme					
Course Name	Gym Instructor Essentials				
Type of Course	DSC B				
Course Code	MG5DSCFIM300				
Course Level	300-399				
Course Summary	The program aims to provide a trainer certification program, equips individuals with the knowledge and skills needed to work as fitness/gym professionals, designing and implementing effective workout programs for clients.				
Semester	5	Credits	4	Total Hours	
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others
		3		1	
Pre-requisites, if any	Learners should have some kind of interest in fitness and health.				

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Understanding general fitness and first aid	U	1
2	Create basic awareness for gym training and programme design .	C	1, 2
3	Identify and assign the appropriate exercises for specific body parts.	An & A	1,2,5
4	Understanding of Nutrient Requirements for health	U	10
5	Create health and fitness programs & Hands-on experience in Gym .	C , A & AN	1,2,3,10

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)*

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1- Introduction to fitness & First Aid	1	Introduction to general fitness and its components. Benefits of Health and Fitness – Role of Fitness among various populations, Age and Sex.	5	1
	2	Definition and Meaning of Load, Load and Adaptation. Factors of Load – Overload, Total Load and Recovery. Total Sets and Repetition, Total Exercise. Principles of Overload. Full body Stretching exercise.	5	1
	3	First Aid & Emergency Life Saving	5	1
2 Workout programmes for various body parts (practical)	1	Workout programmes Body Part 1 – Back (Latissimus Dorsi, Trapezius, Paraspinal Group) Body Part 2 – Legs (Quadriceps, Gluteal group, Hamstrings & Calves) Demo Workout	5	3
	2	Body Part 3 - Chest Shoulder (Pectoralis major, Deltoid group, Rotator Cuff group) Body Part 4 – Abdominal Group (Rectus Abdominis, Internal & External Obliques, Transversus Abdominis, Multifidus & Quadratus Lumborum) Demo Workout	5	3
	3	Body Part 5 - Arms Group (Biceps Brachii, Triceps Brachii, Brachialis, Brachioradialis, Wrist Extensors & Flexors) Demo Workout	5	3
3 Basic Nutrition & Safety in Gym	1	Basic Nutrition, Health Screening and Fitness Testing, Scheduling	5	4,2
	2	Motivation and Adherence Health and Safety in Gym Environment	5	2
	3	Training Program Delivery Application of Exercise Science to Programme Planning	5	2,5

4 Practical's & case study	1	Practical class - Training class with gym equipment. Individual case study in Gym.	30	3,5
5 Teacher Specific Component	5			

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> ● Lecture (Chalk & Board, Power Point presentation) ● Group discussion. ● Peer teaching ● Demonstration ● Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva) End Semester Examination(ESE) Total Mark-85 ESE Practical -35 marks (Viva, presentation, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay - 4x5).

References

Books

1. Sventeckis, A. (2019). Accessibility in gym environments.
2. American College of Sports Medicine. (2012). *ACSM's health/fitness facility standards and guidelines*. Human Kinetics.
3. Pinchas, Y. (2006). *The complete holistic guide to working out in the gym*. University of Calgary Press.
4. Amelina, K., & Kolesova, A. (2017). Nutrition guidelines for the clients of the gym Shape.
5. Paaso, N. (2017). *Gym Training Guide: An Introduction to the Fundamentals of Weight Training*.
6. Winnick, J. P., & Short, F. X. (1999). *The Brockport physical fitness test manual*. Human Kinetics.



Mahatma Gandhi University Kottayam

Programme						
Course Name	Performance Analysis in Sports and Games					
Type of Course	DSC B					
Course Code	MG6DSCFIM300					
Course Level	300-399					
Course Summary	This course structure provides a comprehensive overview of the methodologies and tests used to assess and enhance athletic performance. The course covers various aspects, including physical, psychological, psychological dimensions in performance analysis in sports.					
Semester	6	Credits			4	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	Hours
		3		1	5	
Pre-requisites, if any						

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Understanding the performance analysis and the need and importance in sports	U	P10
2	Analyse the factors including in performance analysis in sports	An	PO 1
3	Develop concepts related to training protocols, and assessment tools based on performance analysis in sports	U	PO 2
4	Evaluate various Performance Assessments in sports	E	PO10
5	Describe the criteria, classification and administration of performance analysis in test	S	PO 1
6	Use of surveys or interviews to gather qualitative data on the athletes' mental state	A	PO 3
7	Encourage self-assessment and goal-setting	A	PO 10
8	Analyse both qualitative and quantitative data collected during assessments	An	PO 2
9	Use the analysis as a basis for continuous improvement in future courses	A	PO10

***Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)**

COURSE CONTENT

Content for Classroom transaction (Units)

Module	Units	Course description	Hrs	CO No.
1 introduction to performance analysis in sports	1.1	Introduction, Meaning, concept of performance analysis in sports	5	1,9
	1.2	scope, Need and importance of performance analysis in sports and athletic development	5	1,9
	1.3	Factors including performance analysis in sports (physiological, physical, psychological and environmental)	5	1,2,4,9
2 Physiological sports analysis test	2.1	VO2 Max Test: meaning, concept and importance of VO2 max - Direct method of testing- metabolic gas analysis, spirometry - Indirect method of testing- treadmill tests, ergometer test, step test, cooper's 12 minute run test or yoyo test.	4	3,4, 5, 8,9
	2.2	Lactate Threshold Test: meaning and concept - Testing methods- heart rate testing, blood testing, ventilatory threshold testing	4	1,3,4, 5, 8,9
	2.3	Resting Metabolic Rate (RMR): meaning and concept - Factors influencing RMR - Measurements- indirect calorimetry and predictive equations	4	3,4, 5, 8,9
	2.4	Blood and Urine Analysis: purpose, properties and features	3	3,4, 5, 8,9
3 Physical sports analysis test	3.1	Muscular Strength and endurance Testing: concept and techniques - one-rep max (1RM) test, hand grip test, isokinetic testing for muscular strength testing - push-up, sit-up, plank test, bodyweight squat test, burpee test for muscular endurance testing	4	1,3,4, 5, 8,9
	3.2	Power Tests: meaning and concept - vertical jump test, standing broad jump test, medicine ball test, squat jump - considerations for power testing	2	3,4, 5, 8,9
	3.3	Agility Tests: meaning and concept - shuttle run test, T-Test, zig-zag test - consideration for agility testing	1	1, 3,4, 5, 8,9

	3.4	Speed and reaction Tests: meaning and concepts <ul style="list-style-type: none"> - 40-yard dash, 10 meter sprint test, flying 30-meter test for speed testing - visual reaction time, agility reaction test, choice reaction time test for reaction testing - guidelines for conducting speed and agility test 	3	1, 4, 5, 8
	3.5	Flexibility and balance Tests: concept, consideration and guideline for testing <ul style="list-style-type: none"> - sit and reach test, shoulder flexibility test, hip flex test for flexibility testing - single leg balance test, stork stand test, y-balance test, dynamic balance test for balance testing 	3	1,3,4, 5, 8,9
	3.6	Body Composition Analysis: meaning and concept <ul style="list-style-type: none"> - skinfold caliper measurement, hydrostatic weighing (advantages and considerations). 	1	3,4, 5, 8,9
	3.7	Recovery Assessments: method and concept <ul style="list-style-type: none"> - heart rate variability, resting heart rate, sleep monitoring, 	1	3,4, 5, 8,9
4 Psychological sports analysis test (Practical)	4.1	Psychological sports analysis test: meaning and concept. Methods of psychological sports analysis <ul style="list-style-type: none"> - Personality Tests: 6 Personality Factors (16PF) - Mental Skills Assessment: Connor Davison resilience scale (CD-RISC), Athletic Coping Skills Inventory (ACSI) 	5	2, 3,4, 5,6,7 8,9
	4.2	<ul style="list-style-type: none"> - Attention and Concentration Tests: Conners Continuous Performance Test (CPT), Stroop Test - Mood and Emotion Assessment: Profile of Mood States (POMS), Positive and Negative Affect Schedule (PANAS), Athlete's Mental Toughness Questionnaire (AMTQ), Sport Emotion Questionnaire (SEQ), Emotion Regulation Questionnaire (ERQ) 	6	2, 3,4, 5,6,7 8,9
	4.3	<ul style="list-style-type: none"> - Motivation and Goal Setting: Sport Motivation Scale (SMS), 	4	2, 3,4, 5,6,7 8,9

		Athlete's Goal Orientation Questionnaire (AGOQ) - Stress and Anxiety Assessment: State-Trait Anxiety Inventory (STAI), Competitive state anxiety test(CSAI)		
Teacher Specific Components				

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) <ul style="list-style-type: none"> • Lecture (Chalk & Board, Power Point presentation) • Group discussion. • Peer teaching • Demonstration Hands on training
Assessment Types	MODE OF ASSESSMENT Continues Comprehensive Assessment (CCA) Total Mark - 35 Practical CCA-15 mark, (Presentation, individual involvement) Theory CCA -25 marks (Written exam- short answer -10x2, viva)
	End Semester Examination(ESE) Total Mark-85 ESE Practical -35 marks (Viva, presentation, assignment, quiz) ESE Theory – 50 marks (Written examination theory – MCQ 10x1, Short Answer – 10x2, Short Essay -4x5).

References

1. "Physiological Tests for Elite Athletes" by Australian Institute of Sport
2. *Performance Analysis in Sport* by Mike Hughes and Ian Franks
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MGU-UGP (HONOURS)

Syllabus