UNIVERSITY OF SARGODHA
OFFICE OF THE REGISTRAR
(ACAD BRANCH)

NOTIFICATION

On the recommendations of Academic Council made in its 16th (1/2023) meeting held on 02.01.2023, the Syndicate in its 61st (1/2023) meeting held on 27.01.2023 has approved the scheme of studies / curriculum of BS Physical Education (5th Semester Intake) for implementation w.e.f. Spring 2023 & onward **(Annex-'A')**.

15/03/23.

(Asif Mehmood)
Deputy Registrar (Acad)

No. SU/Acad/ 252 Dated: 15.03.2023

Distribution:

- Incharge, Department of Sports Sciences
- Controller of Examinations

C.C:

- Director Academics
- Director, QEC
- Deputy Registrar (Affiliation)
- Deputy Registrar (Registration)
- Secretary to the Vice-Chancellor
- PA to Registrar
- Notification File

1. BS Physical Education 5th Semester (After 14th Years Education)

Eligibility: At least 45% marks in Graduation or equivalent

Merit: Basic criteria of the University + Qualify Physical Efficiency Test + 10 Marks for studying Physical Education in ADA / ADS / BA / B.Sc.

Duration: 02 Year Program (04 Semesters) Degree Requirements: 66 Credit Hours

Semester-I

Course Code	Course Title	Credit Hours
PEDU-6301	Sports Management & Administration	03
PEDU-6302	Human Anatomy	03
PEDU-6303	Introduction to Information & Communication Tech.	00
PEDU-6304	Science of Track & Field	03
PEDU-6305	Practical Gymnastic (Floor Exercises)	02
PEDU-6306	Practical Games (Hockey & Cricket)	02
PEDU-6307	Practical Athletics (Sprint Races)	02

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Semester-II

Course Code	Course Title	Credit Hours
PEDU-6308	Theory of Games	03
PEDU-6309	Citizenship Education and Community	0
PEDU-6310	Exercise Physiology	03
PEDU-6311	Research Methodology in Physical Edu.	03
PEDU-6312	Practical Swimming	02
PEDU-6313	Practical Games (Handball & Volley Ball)	02
PEDU-6314	Practical Athletics (Jumps)	02

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Semester-III

Course Code	Course Title	Credit Hours
PEDU-6315	Science of Sports Training	03
PEDU-6316	Sports Psychology	03
PEDU-6317	Test, Measurement & Evaluation in Sports	03
PEDU-6318	Research Project/ Thesis / Internship	03
PEDU-6319	Practical Athletics (Middle & Long Distance Races)	02
PEDU-6320	Practical Games (Foot Ball & Basket Ball)	02
PEDU-6321	Practical Small Area Games	02

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Semester-IV

Course Code	Course Title	Credit Hours
PEDU-6322	Sports Biomechanics	03
PEDU-6323	Sports Nutrition	03
PEDU-6324	Sports Injuries & Rehabilitation	03
PEDU-6325	Research Project/ Thesis II	03
PEDU-6326	Practical Athletics (Throwing Events)	02
PEDU-6327	Practical Games (Table Tennis & Badminton)	02
PEDU-6328	Practical Hiking & Hill Tracking	02

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YASIR IQBAL
INCHARGE
Department of Sports Sciences
University of Sargodha
Sargodha

6301

PEDU-~~6135~~ Sports Management & Administration **3 (3+0)**

This course is graduate level course of M.Sc. Physical Education. The aim of the course is to enable students to develop essential skill required in sports management and administration. In this course students will get the knowledge of management processes such as planning, directing, organizing, staffing and controlling, operations, strategies, total quality management and marketing. Students will get understanding of management and administration principles, various leadership styles and their practical applications, scope of the subject and career opportunities in various national and international sports organizations, fitness and sports industry. Students will learn structure and organizational hierarchy of various national and international sports organizations, various managerial positions and will enhance professional and communication skills to hunt appropriate job in job market effectively and efficiently. Students will be able to plan and organize sports events as a team leader and as a team member. Students will be able to apply research methods, and an understanding of the specific needs and norms of the sports organizations, fitness and sports industry.

Contents

1. Introduction to Administration and Management
2. Organization Structure and Designs
3. Human Resource Management
4. Facility Management
5. Financial Management
6. Inventory and Purchasing
7. Maintenance of Existing Facilities

Recommended Texts

1. Chelladurai, P., &Kerwin, S. (2017). *Human resource management in sport and recreation* (3rd ed.). Champaign, IL: Human Kinetics.
2. Hoye, R., Smith, A. C., Nicholson, M., & Stewart, B. (2018). *Sport management: principles and applications* (5th ed.). London, UK: Routledge.

Suggested Readings

1. Ruta, D., & Sala, I. (2018). HRM in Sport Organizations. In, Brewster C., Cerdin JL. (eds), *HRM in Mission Driven Organizations* (pp. 183-220). London, UK: Palgrave Macmillan.
2. Gentile, D. (2019). *Athletic Administration for College, High School, Youth, and Club Sport.*Burlington, MA: Jones & Bartlett Learning.
3. Lussier, R. N., & Kimball, D. C. (2019). *Applied sport management skills*(3rded.). Champaign, IL: Human Kinetics.
4. Pedersen, P. M., &Thibault, L. (2019). *Contemporary Sport Management*(6th ed.). Champaign, IL: Human Kinetics.

Last Update: September 2026

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Sports Management & Administration
Course Code: PEDU-~~6135~~ 6301
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course is based on the managerial skills and knowledge. This exposure prepares the students to become Professional in the field of Sports, for diversity of roles in the areas of Sports Marketing, Sports Financing, Facility Management and Planning.

INTENDED LEARNING OUTCOMES

This course is designed to meet the needs of the students who are seeking a career in the areas of Sports and recreational organizations. Students are able to address various issues and problems related to the Management and Administration of Sports Programs.

COURSE CONTENTS

1. Introduction to Administration and Management
   - Scope and significance of administration & management.
   - Types of managers / administrators.
   - Qualities of good managers / administrators.
   - Nature of management.
     (a) Planning (b) Organizing (c) Staffing
     (d) Directing (e) Controlling
2. Organization structure and designs
   - Structure and designs of major sports organization of Pakistan. Athletics, Hockey, Cricket, Football, Volleyball and Badminton
   - Strategies and policies of sports organizations
3. Human resource management
   - Introduction
   - Supervision
   - Establishment of policies
   - Job description
   - Job induction
   - Job placement
   - On job training
   - Total quality control / total quality management (T.Q.M.)
4. Facility Management
   - Types of facilities
   - Types of Management
   - T.F.M.P (Total Facility Management Package) includes
     a) Planning: Feasibility and need assessment, site selection, team building
     b) Administration: Facility scheduling, system analysis, evaluation and networking.
     c) Operations: Training and hiring Event management, ticketing and rentals, transportation and maintenance.
     d) Marketing: Promotion of the product, event procurement, licensing sponsorships, media and naming rights.
5. Financial Management

- Importance of fiscal management
- Accounting
- Budgeting and Analysis
- Fund raising

6. Inventory and Purchasing
   - Purchase procedures
   - Inventories
   - Care of supplies and equipment
   - Maintenance of existing facilities

READINGS

1. Hoye, R., Smith, A. C., Nicholson, M., & Stewart, B. (2018). *Sport management: principles and applications*. Routledge.
2. Chelladurai, P., & Kerwin, S. (2018). *Human resource management in sport and recreation*. Human Kinetics.
3. Lussier, R. N., & Kimball, D. C. (2019). *Applied sport management skills*. Human Kinetics.
4. Pedersen, P. M., & Thibault, L. (2018). *Contemporary Sport Management*. Human Kinetics.
5. Tortora, M. (2018). *Sport Management and Sustainability Innovation Challenges. In Sports Media, Marketing, and Management: Breakthroughs in Research and Practice (pp. 301-313)*. IGI Global.
6. Ruta, D., & Sala, I. (2018). *HRM in Sport Organizations. In HRM in Mission Driven Organizations (pp. 183-220)*. Palgrave Macmillan, Cham.
7. Gentile, D. (2019). *Athletic Administration for College, High School, Youth, and Club Sport*. Jones & Bartlett Learning.

6302

PEDU-~~513~~ Human Anatomy **3 (3+0)**

The purpose of this course is to aid students in acquiring a basic understanding of, and new appreciation for, the structures of the human body and their relationships using a systems-based approach. Students will be introduced to anatomic terminology in order to facilitate this understanding. Knowledge of anatomy is a fundamental component of sports coaching profession. Topics covered will include the basic organization of the body and major body systems along with the impact of diseases on certain systems. Working with topics of basic anatomical terminology to the biochemical composition of the human body, all the way into great detail of each of the major systems of the body. One of the goals of this course is to prepare students with the skills necessary to be successful in future sports science theory classes and in sports practical.The major purpose of the course is to provide the students with a comprehensive overview of normal structure and function morphology and functional anatomy of the human body. Another goal of this course is to prepare the students with the skills. Human Anatomy is a course that will enable students to develop an understanding of the relationships between the structures and functions of the human body. Students will also learn the mechanisms for maintaining homeostasis within the human body.

Contents

1. Introduction to Human Anatomy
2. Bones & Joints
3. Skeletal Muscles
4. Nervous System
5. Digestive System
6. Cardiovascular System
7. Respiratory System
8. Endocrinology
9. Injuries & Rehabilitation
10. Fracture
11. Sprain
12. Muscle injuries

Recommended Texts

1. Jarmey C. (2018). *The Pocket Atlas of Human Anatomy: A Reference for Students of Physical Therapy, Medicine, Sports, and Bodywork* (2nd ed.). North Atlantic Books.
2. *Netter, F. H.*(2019). *Atlas of Human Anatomy: Netter Basic Science* (7th ed.). New York:Elsevier.

Suggested Readings

1. Roberts, A. M. (2016). *The complete human body: The definitive visual guide* (2nd ed.). London: Dorling Kindersley Limited.
2. Scanlon, V. C., & Sanders, T. (2018). *Essentials of anatomy and physiology*. Philadelphia: F. A. Davis Company.
3. Patton, K. T., &Thibodeau, G. A. (2018). *Anthony's Textbook of Anatomy & Physiology*(21st ed.). Wisconsi, USA: Elsevier.
   1. Drake, L., Wayne, A., Mitchell, W.M. (2020). *Gray's anatomy for students* (4th ed.). Philadelphia: Elsevier

Last Update: September 202

COURSE OUTLINE

Course Title: Human Anatomy
Course Code: PEDU-~~5113~~ 6302
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

The aim of this course is to provide students with a comprehensive overview of the morphology and functional anatomy of the human body. The course incorporates normal structure and function of the human body and provides an insight to the implications of disruption of normal structure and function. During the course, online multimedia resources and lectures will address topics covering all the systems of the human body

INTENDED LEARNING OUTCOMES

Upon successful completion, students will have the knowledge and skills to:
1. Describe the general principles governing the structural organization of all body systems, joints, from musculoskeletal, visceral to the nervous system.
2. Apply this understanding to address questions in human physiology and malfunction.
3. Identify the major structures of the body on human cadavers and models

COURSE CONTENTS

1. **Introduction**
   - Definition
   - Significance
2. **Bones & Joints**
   - Gross Anatomy of Bones
   - Description of the key joints
   - Shoulder
   - Elbow
   - Wrist
   - Hip
   - Knee
   - Ankle
3. **Skeletal Muscles**
   - Gross Anatomy of skeletal muscles and related actions
   - Description of the major muscles of the body
   - Pictorial Girdle
   - Biceps & triceps
   - Abdominal Muscles
   - Back Muscles
   - Quadriceps
   - Hamstrings
   - Calf Muscles (Superficial Group)
4. **Nervous System**
   - Gross Description of Brain and Spinal Cord
   - Autonomic Nervous System
   - Sympathetic & Para Sympathetic Nervous System
5. **Digestive System**
   - Gross Anatomy of Digestive System
   - Digestion and Absorption of Food

6. **Cardiovascular System**
   - Anatomy and Circulation of Blood in the heart
   - Gross description of Artery, Vein, Capillary
7. **Respiratory System**
   - Gross Anatomy of Respiratory Track and Lungs
   - Gaseous Exchange
8. **Endocrinology**
   - Endocrine Glands & Hormonal Actions
   - Pituitary Glands
   - Thyroid Glands
   - Pancreas
   - Adrenal Glands
   - Gonads
   - Hormones acting on muscles
9. **Injuries & Rehabilitation**
   - What is injury
   - Types of injuries
   - Internal & external factors causing injuries
   - **Intrinsic**
   - **Extrinsic**
   - Key Fractures, Causes, Symptoms and General Treatment of
   - Collies Fracture or Wrist Fracture
   - Dislocation of Shoulder, Knee and Ankle Joints
   - Fracture of Clavicle
   - Sprain
   - Muscle injuries
   - Causes, types and treatment
   - Overuses injuries in different sports
   - Causes, Types and Treatment
   - Muscles
   - Rotator Cuff
   - Tennis Elbow
   - Golf Elbow
   - Groin
   - Hamstring.

READINGS

1. Frank H. Netter, MD. (2019). *Atlas of Human Anatomy: Netter Basic Science* (7th ed.). New York:Elsevier.
2. Jarmey C. (2018). *The Pocket Atlas of Human Anatomy: A Reference for Students of Physical Therapy, Medicine, Sports, and Bodywork* (2nd ed.) North Atlantic Books
3. Scanlon, V. C., & Sanders, T. (2018). *Essentials of anatomy and physiology*. FA Davis.
4. Patton, K. T., & Thibodeau, G. A. (2018). *Anthony's Textbook of Anatomy & Physiology*-E-Book. Mosby.
5. Roberts A. (2016). *The Complete Human Body: The Definitive Visual Guide* (2nd ed.) DK; Enhanced.

6303

PEDU-~~5109~~ Introduction to Information & Communication Technologies 3 (3+0)

The course introduces students to information and communication technologies and their current applications in the irrespective areas. Objectives include basic understanding of computer software, hardware, and associat technologies. They can make use of technology to get maximum benefit related to their study domain. Stude can learn how the Information and Communications systems can improve their work ability and productivity How Internet technologies, E-Commerce applications and Mobile Computing can influence the businesses an workplace. At the end of semester students will get basic understanding of Computer Systems, Storage Devices Operating systems, E-commerce, Data Networks, Databases, and associated technologies. They will also lear Microsoft Office tools that include Word, Power Point, and Excel. They will also learn Open office being used other operating systems and platforms. Specific software's related to specialization areas are also part of cours Course will also cover Computer Ethics and related Social media norms and cyber laws.

Contents

1. Introduction, Overview and its types.
2. Hardware: Computer Systems & Components, Storage Devices and Cloud Computing.
3. Software: Operating Systems, Programming and Application Software.
4. Introduction to Programming Language
5. Databases and Information Systems Networks
6. The Hierarchy of Data and Maintaining Data.
7. File Processing Versus Database Management Systems
8. Data Communication and Networks.
9. Physical Transmission Media Wireless Transmission Media
10. Applications of smart phone and usage
11. The Internet, Browsers and Search Engines.
12. Websites Concepts, Mobile Computing and their applications.
13. Collaborative Computing and Social Networking
14. E-Commerce& Applications
15. IT Security and other issues
16. Cyber Laws and Ethics of using Social media
17. Use of Microsoft Office tools (Word, Power Point, Excel), mobile apps or other similar tools depending on the operating system
18. Other IT tools/software specific to field of study of the students if any

Recommended Texts

1. Vermaat, M. E. (2018). *Discovering computers: digital technology, data and devices*. Boston: Cou Technology Press.

Suggested Readings

1. Timothy J. O'Leary & Linda I. (2017).*Computing essentials*(26th ed.).San Francisco: McGraw Hill Higher Education.
1. Schneider, G. M., & Gersting, J. (2018). *Invitation to computer science*. Boston: Cengage Learning.

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Introduction to Information & Communication Technologies
Course Code: PEDU-~~5109~~ 6303
Credit Hours: 03

DESCRIPTION& OBJECTIVES

The course introduces students to information and communication technologies and their application in the workplace. This course also provides opportunities to familiarize students with computer administrative functions of Word Processing, Database Management and Electronic Spread Sheets. Students learn how to analyze research Programs related to high performance in sports.

INTENDED LEARNING OUTCOMES

Students will get basic understanding of computer software, hardware, and associated technologies. They will also learn how computers are used in the workplace, how communications systems can help to boost productivity, and how the Internet technologies can influence the workplace.
Through this course basic knowledge of Computer Applications is acquired and students learn the internet usage as well as appropriate computer software in classrooms as well as different sports settings.

- Practical learning includes
- MS Word
- MS Excel
- MS PowerPoint etc.

CONTENTS

1. Introduction to Computers: Data and Information, Information Processing Cycle, the Components of a Computer. Advantages and Disadvantages of Using Computers. Networks and the Internet, Computer Software, Categories of Computers, Elements of an Information System, Examples of Computer Usage, Computer Applications in Society.
2. The Internet and World Wide Web: Key Concepts of the Internet, Evolution of the Internet, The World Wide Web, E-Commerce.
3. Application Software: Business Software, Graphics and Multimedia Software, Software for Home, Personal, and Educational Use, Web Applications.
4. The System Unit: Processor, Data Representation, Memory, Expansion Slots and Adapter Cards, Ports and Connectors, Buses, Bays, Power Supply.
5. Input, Output and storage Devices: Introduction with brief detail major I/O and storage devices.
6. Operating System: Basic Concepts of operating system, Windows installation and trouble shooting.
7. Use of Microsoft Office tools (Word, Power Point, Excel) or other similar tools depending on the operating system.
8. Anti viruses: Selection, Installation, updates, computer Security and Safety, Ethics, and Privacy
9. What are Databases, Introduction to Big data.
10. Use of multimedia devices
11. Use of Social media and ethics, introduction about cyber law.
12. Introduction to open source software.
13. Introduction to Networks, wireless networks, cloud computing.
14. Use of software(s) specific to field of study of the students
15. Other IT devices/systems specific to field of study of the students
16. Labs:

Lab work should be carried out to develop students' Computer Skills, Operating Systems Installation and Utility Software Skills, E-Mail Skills, Word Processing Skills, Spreadsheet Skills, Electronic Presentation Skills, Web Surfing Skills.

READINGS

1. Gardner, J. P. (2016). *Computer science. Broomall, PA*: Mason Crest.
2. Chung, P. (2016). *Proceedings of the 10th International Symposium on Computer Science in Sports (Iscss). Cham*: Springer.
3. Zhou, M. (2014). *Advances in sport science and computer science.* Southampton: WIT Press.

6304

PEDU-~~5109~~ **~~Rules~~ of Track & Field Events** **3 (3+0)**

Science

Track and field is a sport that incorporates different types of athletic events. Track events are running events that range from short distance sprints to middle distance runs of a mile or so to long distance runs, like a 26-mile plus marathon. Field events include strength events, such as the shot put and discus, and throwing events, such as the javelin and hammer. The heptathlon and the decathlon are a combination of seven and ten events, respectively, and incorporate both track and field contests together in a quest for the highest score. The purpose of the course is to equip the students with the latest techniques and technology, rules and regulations laid down by the International Association of Athletics Federations (IAAF).Through these course students are tuned to get the required information regarding marking of the standard tracks, judgment and officiating for various Athletic Events including: Running, Jumping and Throwing etc. Moreover, learners can take a closer look at some of the most common track and field events and examine training procedures that can help athletes improve their skills.

Contents

1. Olympic Movements
2. Specification of Standard Track
3. Organization and Administration of Athletic Competition
4. Rules of Track Events
5. Jumping Events
6. Horizontal Jumps
7. Vertical Jumps
8. Throwing Events
9. Combined events competitions
10. Race Walking Events
11. Road Races
12. Cross Country, Mountain and Trail Races
13. Athletic Committees
14. Official and their duties

Recommended Texts

1. Gifford, C. (2012). *Track and field* (7th ed.). Mankato, MN: Amicus..
2. Rasool, S. (2018).*Rules of track and field events* (3rd ed.). Lahore:Ilmi Publishers.

Suggested Readings

1. Koerner, H., & Chase, A. W. (2014). *Hal Koerner's field guide to Ultrarunning: Training for an Ultramarathon, from 50K to 100 miles and beyond* (5th ed.). Boulder, CO: VeloPress.
2. Gilani, B.(2018). *Rules of track and field events* (4th ed.). Lohore: Gilani Publishers.

Kastor, A. (2018). *Running your first marathon: The complete 20-week marathon training plan* (2nd ed.). Emeryville, CA: Rockridge Press.

COURSE OUTLINE

Course Title: ~~Rules~~ Science of Track & Field Events
Course Code: PEDU: ~~5109~~ 6304
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

The focus of the course is to equip the students with the latest rules and regulations laid down by I.A.A.F. (International Amateur Athletic Federation)

INTENDED LEARNING OUTCOMES

Through this course students are tuned to get the required information regarding marking of the tracks, judgment and officiating for various Athletic Events including: Running, Jumping and Throwing Etc.

COURSE CONTENTS

CHAPTER 1

Olympic Movements

a) Olympism
b) Ancient Olympic
c) Modern Olympic

CHAPTER 2

Specification of Standard Track

- Introduction to the standard track. IAAF Track and Field Facilities Manual 2008 Edition page
- Introduction, display of track and division of track, order, and locations of events.
- Introduction to the starting & finishing points of sprint, middle & long distance races, jumps and throwing events.
- Construction of athletic track within given area
- Construction of athletic track with given length & lanes
- Important track constructions and guidelines such as athlete area, official area, drainage of rain water, washroom area, store area, parking, separators area, media and VIP area etc

CHAPTER 3

Organization and Administration of Athletic Competition

- Introduction to administration, organizing and planning of athletic competition
- Selection of season, day, date, time, financial & human resources and necessary approvals for the athletic competition
- Selection and guidelines on order of athletic events for one day, two days, tree days, athletic meet receptively
- Introduction to the requirement of official, their responsibilities, and formulation of various committees such as organizing, finance, technical, protocol, media, boarding and lodging, protest and appeal committees etc.
- Athlete's points and ranking system.
- Appointment of judges, referees, scorers, timekeepers, measurement assistants, technical assistants for various events of athletic meet.

CHAPTER 4

Rules of Track Events

a) Sprint Races
b) Middle & Long Distance Races

CHAPTER 5

Rules of Field Events

A) Jumping Events

- **Horizontal Jumps**
  a) Long Jumps
  b) Triple Jumps
- **Vertical Jumps**
  a) High Jumps
  b) Pool Vault

B) Throwing Events

a) Shot Put Throw
b) Discuss Throw
c) Javelin Throw
d) Hammer Throw

CHAPTER 6

a) Combined events competitions
b) Race Walking Events
c) Road Races
d) Cross Country, Mountain and Trail Races

CHAPTER 7

a) Athletic Committees , official and their duties

READINGS

1. *IAAF Competition Rules 2018-2019* http://athleticssa.com.au/Portals/54/Documents/Rules/IAAF%20Competition%20Rules%202018-2019.pdf
2. Robyn Jones (2013) *An Introduction to Sports Coaching* Paperback
3. *IAAF Track and Field Facilities Manual* (2018) Edition
4. *IAAF Competition Rules 2018-2019* http://athleticssa.com.au/Portals/54/Documents/Rules/IAAF%20Competition%20Rules%202018-2019.pdf

Last Update: September 2020

6305

PEDU-~~5103~~ Practical Gymnastic (Floor Exercises) **2 (0+2)**

This module introduces the student to the basic knowledge about the importance of gymnastics in physi education and its function in the formation of physical fitness. The student should get to know the gymnastic terminology, correct technique of performance, the methods of teaching and spotting procedures applied i primary gymnastics. The aim of the course is to familiarize students. Combine the lesion and benefits o gymnastics in terms of strength, flexibility, courage, coordination and determination and you have the making of complete athlete who is reading for any sports or activity. To develop confidence in fundamental movemen experience,jumping, sliding, rolling, moving over, under and on apparatus and develop coordination and gros motor skills. Skilful and creative mastery of the body in the gymnastic context. Enhance knowledge and understanding of gymnastic as an aesthetic experience. Enrich personal and social development through interaction with others in a variety of structure context.

Contents

1. Introduction to gymnastic
2. General and specific warm up & cool down exercises
3. Arms stretching exercises
4. Trunk strengthen exercises
5. Rocking and rolling exercises
6. Strengthen the gluteus, hamstring muscles
7. Conducting & officiating skills
8. Methodology of teaching the different kinds of splits, back arching and bridge
9. Methodology of teaching the forward and backward rolls
10. Coaching techniques about gymnastics
11. organizing and officiating
12. Coaching & Umpiring Skills

Recommended Texts

1. Light, R. (2019). *Positive pedagogy for sport coaching: Athlete-centred coaching for individual sports* (2nded.). Abingdon, Oxon: Routledge, an imprint of the Taylor & Francis Group.
2. Walduck, V. (2020). *My book of gymnastics* (1sted.). New York: DK Publishing.

Suggested Readings

1. Wirhed, R., Gabra, G., Salander, S., Courtney, M., Hogarth, B., & Murray, G. (2006). *Athletic ability and t anatomy of motion* (3rded.). Edinburgh: Elsevier.
2. Joyce, D. (2016). *Sports injury prevention and rehabilitation: Integrating medicine and science for performance solutions*. London: Routledge.

Schlegel, E., & Dunn, C. R. (2018). *The gymnastics book: The young performer's guide to gymnastics* (3rded.). New York: Firefly Books.

Last Update: September 2020

COURSE OUTLINE

Course Title: Practical Gymnastic (Floor Exercises)
Course Code: PEDU -~~5105~~ 6305
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

This module introduces the student to the basic knowledge about the importance of gymnastics in physical education and its function in the formation of physical fitness. The student should get to know the gymnastic terminology, correct technique of performance, the methods of teaching and spotting procedures applied in primary gymnastics. The aim of the course is to familiarize students with:

1. Basics of the theory of gymnastics. Flexibility and mobility in warm-ups - variations on multiple dynamic warm-ups, static stretches, and balance work.
2. Basic strength – development for disadvantaged leverage and basic prowess in gymnastics movements, shapes, and positions
3. Professional vocabulary, performing techniques, methodology and spotting schemes of exercises in general, acrobatic and artistic gymnastics.
4. The rules of a safe organizing and teaching the different forms gymnastic exercises during Physical Education classes.

INTENDED LEARNING OUTCOMES

1. knows the professional vocabulary and terminology of warm-up and general gymnastic exercise
2. knows methodology and performing techniques of warm-up and general gymnastic exercises

SKILLS:

1. Is able to identify and correct the errors in performing gymnastic exercises.
2. Knows how to choose and use in practice a variety of methods, forms and means for the implementation of lessons in gymnastics
3. can organize students competitions in gymnastics and prepare students to participate in competitive gymnastic sports
4. recognizes the need to care for his own physical condition and health, increases the level of his physical fitness
5. has a sense of responsibility for the students, can help weaker students and respects the safety principles of self and the others during gymnastic classes

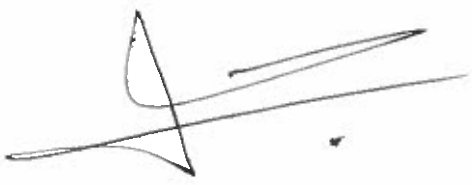
COURSE CONTENTS

13. Introduction of gymnastic ,techniques and methods
14. General and specific warm up & cool down exercises
15. Arms stretching exercises (circle walks ,squats, jumps and push-ups)
16. Trunk strengthen exercises(Abdominal Muscles)
17. Rocking and rolling exercises
18. Isolate and strengthen the (gluteus, hamstring muscles)
19. Conducting & officiating skills
20. Individual and in pairs: Methodology of teaching the different kinds of splits, back arching and bridge
21. Methodology of teaching the forward and backward rolls
22. Coaching techniques about gymnastics

23. organizing and teaching set of warm-up exercises or set of exercises focused on the development of motor skills (conducted by students) Improving the performance pair and trios basic routines for best performance and demonstration

READINGS

- Gymnastics for everyone :John benneth;American press **(Year)**
- Kurzak M. (2011) Elementy akrobatyki sportowej na lekcjach wychowania fizycznego. Wyd. RAABE. Warszawa



Last Update: September 202

6306

PEDU-~~515~~ Practical Game (Hockey, Cricket) **2 (0+2)**

Games are essential for a good health. Therefore, all young men and women ought to play games. Those who play games frequently will maintain a good health. They can develop a muscular body. Games teach us the spirit of patience and courage. Discipline is incredibly essential not just for the progress of an individual however conjointly for the progress of the nation as a whole. Young boys and girls can even develop the standard of leadership through games. Main objective of this course seeks to emphasize the enhancement of professional abilities and skills of the students with overall leadership qualities. It also develops students' physical competence and knowledge of movement and safety and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. At the end of course students will become more professional in various fields of physical education and sports like, teachers, coaches, match officials, psychologist and trainers etc.

Contents

1. Introduction of Cricket
2. Proper Warm up and Cool Down Methods
3. Ball, Bat, Ground, Positions
4. Equipment, Measurement
5. Dimensions of the ground
6. Basic Rules of Cricket
7. Game Skills
8. Coaching & Umpiring Skills
9. Introduction of Hockey
10. Warm up and Cool Down
11. Methods and Techniques
12. Guideline for Hockey, Grip, Control
13. Measurement of Ball, Hockey and ground
14. Ground, Positions, Equipment
15. Measurement Dimensions, Basic Rules of Hockey
16. Drills with Ball, Passing Skills
17. Dribbling Skills
18. Shooting Skills, Attacking Skills, Defending Skills,
19. Scoping methods
20. Coaching & Umpiring Skills

Recommended Texts

1. Nash, C. (2015). *Practical sports coaching* (1st ed.). London: Routledge.
2. Wormhoudt, R., Savelsbergh, G. J., Teunissen, J. W., &Davids, K. (2018). *The athletic skills model optimizing talent development through movement education* (2nd ed.). London: Routledge.

Suggested Readings

1. Wirhed, R., Gabra, G., Salander, S., Courtney, M., Hogarth, B., & Murray, G. (2006). *Athletic ability and the anatomy of motion* (3rd ed.). Edinburgh: Elsevier.
2. Coulson, M. (2017). *The fitness instructor's handbook: The complete guide to health and fitness*. London: Bloomsbury.
3. Light, R. (2019). *Positive pedagogy for sport coaching: Athlete-centred coaching for individual sports* (2nd ed.). Abingdon, Oxon: Routledge, an imprint of the Taylor & Francis Group.

Last Update: September 2020

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Practical Game (Hockey, Cricket)
Course Code: PEDU -~~5115~~ 6306
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

Our main objective of this program seeks to emphasize the enhancement of professional abilities and skills of the students with overall leadership qualities. we develop students' physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. We want our students will become professional in many different forms like, teachers, coaches, officials and even trainers for a gym.

INTENDED LEARNING OUTCOMES

Upon completion of this course students will be able to:

- **Understand the importance of sound health and fitness principles as they relate to better health and will be able to** define the various health components of fitness, recognize the physical and mental benefits of increased activity, and determine factors involved with development, fitness levels and training strategies.
- **Students will demonstrate proficiency through knowledge and acquired skills.**
- Create a safe, progressive, methodical and efficient activity based plan to enhance improvement and minimize risk of injury.
- Identify common health and fitness myths along with trends involved with the evolving nature of games.

COURSE CONTENTS

1. Introduction of Cricket, Proper Warm up and Cool Down Methods and Techniques, Guideline how to grip cricket Bat, Batting stance
2. Ball, Bat, Ground, Positions, Equipment, Measurement, Dimensions, Basic Rules of Cricket
3. Catching Skills, Fielding Skills, Batting Skills, Bowling Skills, Throwing Skills
4. Coaching & Umpiring Skills
5. Introduction of Hockey, Proper Warm up and Cool Down Methods and Techniques, Guideline how to use Hockey, Grip, Control
6. Introduction of Hockey, Proper Warm up and Cool Down Methods and Techniques, Guideline how to use Hockey, Grip, Control
7. Ball, Hockey, Ground, Positions, Equipment, Measurement Dimensions, Basic Rules of Hockey
8. Drills with Ball, Passing Skills, Dribbling Skills
9. Shooting Skills, Attacking Skills, Defending Skills, Catching Skills, Scoping
10. Coaching & Umpiring Skills

READINGS

- **International Cricket Council, https://www.icc-cricket.com/**
- **International hockey federation , https://www.iihf.com/**

Last Update: September 202..

PEDU-~~5108~~ 6307 Practical Athletics (Sprint Races) **2 (0+2)**

This course is a graduate level practical course of M.Sc. Physical Education. The course covers theoretical topics as well as practical application and skill performance of sprint race including 100m, 200m, 400m and 800m, 4 x 100m, 4 x 400m, 100m hurdle, 110m hurdle, 400m hurdles. The main focus of the practical is to enable students to design a training program for themselves and for other athletes with coaching perspectives, containing general and specific warm up, cool down, static and dynamic stretching exercises, practice of technical and tactical skills to improve physical performance. It will increase students' understanding with up to date rules and regulation framed by World Athletics (International Track and Field Organization). The practical sessions enable students to identify periodization of training ranging from off season training to peak season training, division of training program to micro, meso and macro cycles. It also familiar them with international records, events along with state of the art technology used in track and field events for continuous performance development process.

Contents

1. Introduction of Sprint Races
2. Warm up & Cool Down Methods & Techniques (General & Specific)
3. Stretching and strengthening exercise
4. Neuromuscular coordination exercises
5. Static and dynamic stretching
6. Races with different intensity
7. Improve stride length and stride frequency
8. Power training
9. Coordination exercises
10. Weight Training/ Resistance Training exercises
11. Rules and Regulation of Sprint Races
12. Duties and of officials & organizing committee
13. Demonstration and Presentation

Recommended Texts

1. Shepherd, J. (2009). *101 Youth Athletics Drills.* London, UK: A & C Black Publisher Ltd.
2. (2020). *Book of Rules: Official Documents*. Monaco: World Athletics. The data retrieved on June 07, 2020. *from URL* https://www.worldathletics.org/about-iaaf/documents/book-of-rules.

Suggested Readings

1. American Sport Education Program (2008). *Coaching youth track & field.* Champaign, IL: Human Kinetic.
2. Husbands, C. (2013). *Training, techniques and improving performance.* Ramsbury, England: The Crowo Press.
3. Lewindon, D., & Joyce, D. (2014). *High-Performance Training for Sports*. Champaign, IL: Human Kinetics.
4. Smith, J. & Clark, J. (2018). *Speed strength: a comprehensive guide to biomechanics, demands and training methodology for linear speed.* Berkely, CA: Just Fly Sports

COURSE OUTLINE

Course Title: Practical Athletics (Sprint Races)
Course Code: PEDU -~~5108~~ 6307
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

During course students will develop their running skills as well as their knowledge of the rules equipment and central form of athletics. Compose and perform their routine. Demonstrate knowledge of the principles of particular event and races, they will also develop motor skills and gain the necessary how-know for races.

INTENDED LEARNING OUTCOMES

- The capacity to set personal goals, understand and appreciate the concept of fair play.
- Love for and enjoyment of races.
- Enhance social development through participation in group activities.
- Perform basic level of coaching and performing skill required in sprint races.
- Identification of challenges and coping strategies.

COURSE CONTENTS

1. Introduction of Sprint Races, Warm up & Cool Down Methods & Techniques (General & Specific)
2. Stretching and strengthening exercise
3. Neuromuscular coordination exercises
4. Static and dynamic stretching,
5. Races with different intensity
6. Improve stride length and stride frequency
7. Power training
8. Coordination exercises
9. Weight Training/ Resistance Training exercises
10. Rules and Regulation of Sprint Races
11. Duties and of officials & organizing committee
12. Demonstration and Presentation

READINGS

1. IAAF rules available on ww.iaaf.com

6308

PEDU-~~5106~~ Theory of Games **3 (3+0)**

This course is designed to equip the students/ learners with the updated knowledge regarding rules and regulation of various team sports as well as facility management. Play fields are dimension, judgment and officiating f different games at different levels. Another, a key component of the course is to enhance the performance of th Athletes. The ultimately purpose of the course is to provide deep knowledge about the philosophy of Rules a techniques of different games.The major concerned of this course is to provide learning experiences that will le to the development of basic skills in team sports. In addition to skill acquisition, the course will focus on how to plan and implement the four stages of skill development in games through the use of extending, refining, and application tasks. An emphasis will be placed on the use of the game stages and movement framework as a guide for designing a variety of sports game experiences for students.Through the ages, sport has been known to affect various cultures, traditions, and values in our society the world of sport help us to gain a better understanding of our views on issues of equality, human rights, child development, standards for health and fitness, and character development, as well as many other issues.

Contents

1. Types of Tournaments
2. Round Robin (League system)
3. Elimination (knock out)
4. Combination, Consolation
5. Double elimination, Ladder
6. Pyramid, Organization and Administration
7. Planning of sports facilities, their care and maintenance
8. Playfields, Gymnasia
9. Stadia, Covered areas
10. Artificial surfaces
11. Rules and techniques of the following games and their application
12. Badminton, Basket ball
13. Cricket, Football, Hand ball
14. Hockey, tennis, Table tennis, Volley ball

Recommended Texts

1. Schott, G. (2016). *Violent games: Rules, realism, and effect* (4th ed.). London: Bloomsbury.
2. Gilani, B. *(2018). Theory of Games*(3th ed.). Lahore: Gilani Publishers.

Suggested Readings

1. Masterman, G. (2014). *Strategic sports event management* (3rd ed.). New York, NY: Routledge.
2. Anniss, M. (2016). *The impact of technology in sport* (6th ed.). London: Raintree.
3. Rasool, S.(2018). *Theory of Games*(4th ed.). Lahore: Ilmi Publishers.
4. Harper, J. (2020). *Sporting gender: The history, science, and stories of transgender and intersex athletes* (3rd ed.). London: Rowman and Littlefield.

COURSE OUTLINE
Course Title: Theory of Games
Course Code: PEDU-~~5106~~ 6308

DESCRIPTION AND OBJECTIVES

The focus of the course is to equip the students with the latest rules and regulations laid down by I.A.A.F (International Amateur Athletic Federation).

INTENDED LEARNING OUTCOMES

The fundamental objective of this course is to equip the students with the update knowledge regarding rules and regulations of various team sports. Play field are dimension and judgment and officiating for different games.

COURSE CONTENTS

1. **Types of Tournaments**
   - Round Robin (League system)
   - Elimination (knock out)
   - Combination
   - Consolation
   - Double elimination
   - Ladder
   - Pyramid
2. **Organization and Administration**
3. **Planning of sports facilities, their care and maintenance:**
   - Playfields
   - Gymnasia
   - Stadia
   - Covered areas
   - Artificial surfaces

   With special reference to layout / orientation, environments and environmental relationship. parking financial considerations, care and maintenance
4. **Rules and techniques of the following games and their application.**
   - **Basket ball**
     1) Introduction of the game
     2) Introduction to organizing international & national body
     3) Introduction to the ground, Playfield, court Measurement
     4) Equipment & basic measurement
     5) Number of team players, major events. Match duration. point scoring system.
     6) Rules & Regulation of the game
     7) Official & their Responsibilities
     8) Disputed matters
   - **Cricket**
     1) Introduction of the game
     2) Introduction to organizing international & national body
     3) Introduction to the ground, Playfield. court Measurement
     4) Equipment & basic measurement
     5) Number of team players, major events, Match duration, point scoring system.
     6) Rules & Regulation of the game
     7) Official & their Responsibilities

8) Disputed matters

- **Football**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system,
  6) Rules & Regulation of the game
  7) Official & their Responsibilities
  8) Penalties
  9) Disputed matters
- **Hand ball**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system,
  6) Rules & Regulation of the game
  7) Official & their Responsibilities
  8) Penalties
  9) Disputed matters
- **Hockey**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system,
  6) Rules & Regulation of the game
  7) Official & their Responsibilities
  8) Penalties
  9) Disputed matters
- **Tennis**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system,
  6) Rules & Regulation of the game
  7) Official & their Responsibilities
  8) Disputed matters
- **Table tennis**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system,

6) Rules & Regulation of the game
7) Official & their Responsibilities
8) Disputed matters

- **Volley ball**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system.
  6) Rules & Regulation of the game
  7) Official & their Responsibilities
  8) Disputed matters
- **Badminton**
  1) Introduction of the game
  2) Introduction to organizing international & national body
  3) Introduction to the ground, Playfield, court Measurement
  4) Equipment & basic measurement
  5) Number of team players, major events, Match duration, point scoring system.
  6) Rules & Regulation of the game
  7) Official & their Responsibilities
  8) Disputed matters
- **Use of modern technology and equipment in, enhancing sports performance**

READINGS

1. Rasool, S. (2018) *Theory of Games*, (6th ed.)
2. Gilani, B. *(2018) Theory of Games* (8th ed.)
3. *https://img.fifa.com/image/upload/datdz0pms85gbnqy4j3k.pdf*. Available at:(Accessed:)
4. www.fina.org
5. *http://www.worldbadminton.com/rules/documents/bwfLaws2018.pdf*
6. *http://www.fiba.basketball/OBR-2018-working-document-yellow-version-10.pdf*
7. *http://www.ihf.info/files/Uploads/NewsAttachments/0_New-Rules%20of%20the%20Game_GB.pdf*
8. *http://www.fih.ch/media/13164482/fih-rules-of-hockey-2019-final-*
9. *website.pdfwww.ittf.com*
10. *https://www.ittfennis.com/media/107013/107013.pdf*
11. *https://www.ittf.com/wp-content/uploads/2018/02/2018ITTFHandbook_v2.pdf_0.pdf*
12. *https://www.fivb.org/EN/Refereeing-Rules/documents/FIVB-Volleyball_Rules_2017-2020-EN-v06.pdf*

URCC-5110 Citizenship Education and Community Engagement 3 (3+0)

This course emphasized how to experience the social contact with the community, and how to mobilize community for the development. Teach students the importance and role of active citizenship in promoting a productive, harmonious and development society/ world. Educate students about the importance of concept skills and philosophy of community linkages in developing a sustainable society. Inculcate the importance o community involvement for ensuring an improved, tolerant and generative society/ world. Provide an opportunity to the students to develop their relationship with the community. The course includes wider issues including culture, gender, special needs, equity and equality and collaborative working condition with in the community This course will provide an orientation for the process of socialization and social factors which may affe education. This course has not theoretical perspective but some practical aspects as well, like community wo improving social interaction activities, and promotion of healthy environment. The fundamental purposes education are gain knowledge to inculcate the forms of proper conduct and acquire practical competency.

Contents

1. Introduction to citizenship education and Community Engagement
2. Identity, Culture, and Social Harmony
3. Multi-cultural society and inter-cultural dialogue
4. Active Citizen: Locally Active, Globally Connected
5. Human rights, constitutionalism and citizens' responsibilities
6. Social issues in Pakistan
7. Social Action Project
8. Assignment (Formative/Summative)

Recommended Texts

1. C. bob. (2018). Building kid's citizenship through community engagement. New York:Die Deutsche Nationalbibliothek.
2. Kennedy, k. j.(2019). Civic & citizenship education in volatile times preparing students for citizen in 21 century. Hong Kong: Springer.

Suggested Readings

1. Abbott, J. (2013). *Sharing the city: community participation in urban management*. (3rded.).Routledge.
2. Rivlin, A. M., Shalala, D. (2015).*Systematic Thinking for Social Action*. New York: Brooking Intuition Press.

COURSE OUTLINE

Course Title: Citizenship Education and Community Engagement
Course Code: URCC-~~5110~~ 6309
Credit Hours: 0 (03 Lecturer in Week)

The overall objectives of this course are to:

- Teach students the importance and role of active citizenship in promoting a productive, harmonious and development society/ world
- Educate students about the importance of concepts, skills and philosophy of community linkages in developing a sustainable society
- Inculcate the importance of community involvement for ensuring an improved, tolerant and generative society/ world
- Provide an opportunity to the students to develop their relationship with the community

The primary outcome is inclusive development through active citizenship locally and globally. Moreover, the following are the detailed outcomes of the course based on the three domains of Bloom's Taxonomy i.e. Affective, Psychomotor and Cognitive. The students will be able to:

- Understand the overall organization of the society
- Recognize and exercise their rights, responsibilities and the significance of active citizenship in positive societal development
- Identify and critically evaluate social issues and implement practicable community based solutions
- Understand the concept of human rights and its significance
- Appreciate diverse viewpoints and inter-cultural harmony

Introduction to citizenship education and Community Engagement

- Orientation (course outline, learning outcomes etc.)
- Introduction to Active Citizenship: Overview of the Ideas, Concepts, Philosophy and Skills
- Approaches and Methodology for active citizenship

Identity, Culture, and Social Harmony

- Concept and Development of Identity
- Components of Culture and Social Harmony
- Cultural & Religious Diversity (Understanding and Affirmation of Similarities & Differences)
- Social Structure and Social Hierarchy (stake holders: decision makers implementers and others)

Multi-cultural society and inter-cultural dialogue

- Inter-cultural dialogue (bridging the differences, promoting harmony)
- Significance of diversity and its impact
- Importance and domains of inter-cultural dialogue
- Role of civil society in promoting inter-cultural harmony

Active Citizen: Locally Active, Globally Connected

- Importance of active citizenship at national and global level
- Understanding community
- Identification of resources (human, natural others)
- Utilization of resources for development (community participation)
- Strategic planning for development (community linkages and mobilization)

Human rights, constitutionalism and citizens' responsibilities

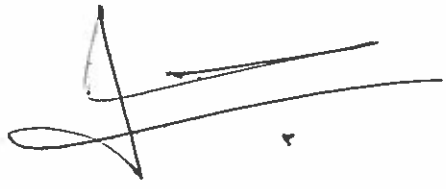
- A) Introduction to human rights
- Universalism vs. relativism
- Human rights in constitution of Pakistan
- Public duties and responsibilities
- Constitutionalism and democratic process
- Current human rights issues in Pakistan

Social issues in Pakistan

- Introduction to the concept of social problem
- Causes and solutions: critical thinking and evaluation
- Social issues in Pakistan (poverty, equal and equitable access of resources, unemployment, agricultural problems, terrorism & ,militancy, governance issues, corruption, ethic & sectarian issues, illiteracy, dowry, child labour, gender discrimination, substance abuse and others)

Social Action Project

- Introduction and planning of social action project
- Identification of problem (area mapping)
- Ethical considerations related to project
- Assessment of existing resources (material and non-material)
- Community-based project planning and action groups building



- Implementation (role division among action groups)
- Monitoring & evaluation (impact assessment / value enhancement)

Practicum
(List and number of practical/activities/projects/field visits etc): one field social action project
Teaching Methods
(Propose more than one method according to the nature and scope of the course e.g.):

- Lecturing
- Assignments
- Guest Speaker
- Field Visits
- Report Writing

READINGS

1. *John J. Macionis, Lindaa Marie Gerber, Sociology (New York: Pearson Education, 2010)*
2. *Twelvetrees, A.,(12 May 2017). Community Development, Social Action and Social Planning*
3. *The Constitution of the Islamic Republic of Pakistan (Pakistan: The National Assembly of Pakistan,2012),also available online at the official website of National Assembly of Pakistan: http://na.gov.pk/uploads/documents/13333523681 951.pdf(Accessed on April 25, 2017)*
4. *Larsen, A. K., (2013). Participation in Community Work: International Perspectives (Vishanthie Sewpaul, Grete Oline Hole)*
5. *British Council, Active Citizen's Social Action Projects Guide (Scotland: British Council,2017)*
6. Kaye, C. B., (2004). The Complete Guide to Service Learning: Proven, Practical Ways to Engage Students in Civic Responsibility, Academic Curriculam, & Social Action (Minneapolis: Free Spirit Publishing Ins)
7. Brownlie, I., Goodwin, G. S., & Brownlie's, G., (2010). Documents on Human Rights(London Oxford University Press)
8. Kerry, J. & Kennedy, A. (2016), Regional Contexts and Citizenship Education in Asia and Europe New York: Routledge Falmer.

6310

PEDU-~~417~~ Exercise Physiology **3 (3+0)**

The purpose of this course is to increase the student's knowledge and understanding about human physiology and the adaptations that occur during exercise. Exercise physiology is a branch of physiology that deals with the functioning of the human body during exercise. An understanding of how the body responds to acute and chronic exercise is crucial for the physical educator, athletic trainer, coach, fitness expert, or exercise physiologist. Emphasis is placed on bioenergetics as well as circulatory, respiratory and neuromuscular responses to the physical stress of exercise. Also discussed are the effects of environmental factors and ergogenic aids on athletic performance. The objective of this course is for the student to gain an understanding and working knowledge of how the body responds to exercise so that they may apply this knowledge to their chosen field. Indeed understanding the interactions of metabolism, circulation, and structural adaptations in response to exercise and training are required to be an effective teaching or health care professional. On the completion of this course students will be able to discuss Health benefits of a consistent exercise program and the health risks associated with inactivity. The students will be able to discuss how the various systems of the human body interrelate in response to exercise.

Contents

1. Introduction of Physiology
2. Bio-Energetic
3. Conditioning in Sports
4. Cardiovascular Systems
5. Respiratory System
6. Exercise and Environments
7. Doping
8. Role of I.O.C.
9. Types of doping tests
10. Prevention of doping
11. Aging Exercise and Disease Prevention
12. Aging
13. Diabetes
14. Obesity
15. Blood pressure
16. Osteoporosis

Recommended Texts

1. Ehrman, J., Gordon, P., Visich, P., &Keteyian, S. (Eds.). (2018). *Clinical Exercise Physiology* (4th ed.).Champaign, IL: Human Kinetics.
2. Haff, G. G., &Dumke, C. (2018). *Laboratory Manual for Exercise Physiology*(2nd ed.).Champaign, IL: Human Kinetics.

Suggested Readings

1. John, P., Cedric, X., Fabio, C.(2015).*Exercise physiology.*Philadelphia.F. A. Davis Company.
2. Scott, K., Edward, T. (2015).*Exercise physiology: theory and application to fitness and performance*(10th ed.). New York: McGraw-Hill publisher.
3. Kenney, W. L., Costill, D. L., & Wilmore, J. H. (2020). *Physiology of sport and exercise* (7th ed.). Champaign: Human Kinetics.
4. Murray, R., & Kenney, W. L. (2020). *Practical guide to exercise physiology: The science of exercise training and performance nutrition*. Champaign, IL: Human Kinetics.

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Exercise Physiology
Course Code: PEDU-~~6117~~ 6310
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course will examine the scientific foundations and provide an understanding of the mechanisms by which the body functions during exercise and physical activity. Topics of discussion include: function of the cardiovascular system, respiratory system, musculoskeletal system, neural and endocrine systems, the acute and chronic response and energy production in exercise and training.

INTENDED LEARNING OUTCOMES

Upon successful completion of this course, the student will have reliably demonstrated the ability to:-

1. Recognize the basic principles of exercise physiology and examine the expected physiological responses to exercise and training.
2. Identify and interpret fundamental transient and permanent adaptations to the cardiovascular, respiratory, neuromuscular, neuroendocrine and metabolic systems in response to exercise and training.
3. Apply the principles of exercise physiology to identify possible morbidity/mortality risks for generally healthy populations.
4. Analyze a variety of exercise options for the prevention of chronic disease and to attain maximum results in health, wellness and performance.

COURSE CONTENTS

1. **Introduction of Physiology**
   - Definitions of sports physiology
   - Nature, scope and application of sports physiology
2. **Bio-Energetic**
   - ATP – CP Energy cycle
   - Production of ATP – CP by aerobic and an aerobic Metabolisms
   - BMR (Basic Metabolic Rate)
   - Definitions and Factors effecting BMR
3. **Conditioning in Sports**
   - Muscular flexibility, strength endurance
   - Principles of sports training
   - Over training
4. **Cardiovascular Systems**
   - Stroke volume, heart rate & Cardiac output
   - Effects of exercise on heart
   - Blood pressure and effects of exercise on Blood Pressure
5. **Respiratory System**
   - Gaseous exchange
   - Respiratory volumes
   - Effects of exercise on respiratory system
   - Hemoglobin Dissociation
6. **Exercise and Environments**
   - Environmental factors in training
   - Temperature regulations
     - Exercise and temperature regulation in hot climate
     - Humid climate (Hyponetrimia)

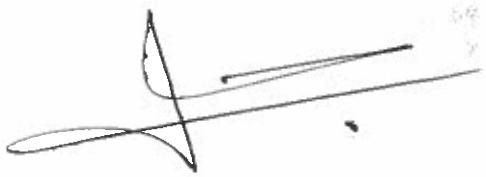
- Hot and dry climate
- Heat stroke
- Cold climate (Hypothermia and Frostbite)

- Air Pollution
- Fatigue and its causes
- High altitude effects on exercise

7. **Doping**
   - Definition of doping
   - Historical background
   - Role of I.O.C.
   - List of Banned Drugs by I.O.C.
   - Types of doping tests
   - Prevention of doping
8. **Aging Exercise and Disease Prevention**
   - Aging
   - Diabetes
   - Obesity
   - Blood pressure
   - Osteoporosis

READINGS

1. Ehrman, J., Gordon, P., Visich, P., & Keteyian, S. (Eds.). (2018). *Clinical Exercise Physiology (4th ed.)*. Human Kinetics.
2. Haff, G. G., & Dumke, C. (2018). *Laboratory Manual for Exercise Physiology, (2nd ed.)*. Human Kinetics.
3. Burnley, M., & Jones, A. M. (2018). *Power–duration relationship: Physiology, fatigue, and the limits of human performance. European journal of sport science, 18(1), 1-12.*
4. Behm, D. G. (2018). *The science and physiology of flexibility and stretching: implications and applications in sport performance and health*. Routledge.
5. Périard, J. D., & Racinais, S. (2018). *13 Cycling in the Heat. Heat Stress in Sport and Exercise: Thermophysiology of Health and Performance*.
6. Périard, J., & Racinais, S. (2019). *Heat Stress in Sport and Exercise*. Springer.
7. Norton, K., & Eston, R. (2018). *Kinanthropometry and exercise physiology*. Routledge.
8. W. Larry Kenney, Jack H. Wilmore, & David L. Costill (2019) *Physiology of Sport and Exercise*. (6th ed.). Human Kinetics.



6311

PEDU-~~6122~~ Methods of Research in Sports **3 (3+0)**

This course is a graduate level course of M.Sc. Physical Education. This course willprovide students a basic understanding of research objectives, research problems, hypothesis, design, methodologies, instrumentation, statistical procedures, analysis, precision, variables, population and sampling. Enable them to read and interpret research articles, analyse the data presented therein and discover causes and effect relationship of variables, correlation, draw general principles and scientific generalization that can be applied to the solution of a wide range of problems in sports sciences, physical education and recreation nationally and internationally. Students will learn to read and interpret existing research articles, to select appropriate methodologies for a researchable question, and conduct a literature review on a topic of their own interest. The course will also build the foundation to prepare a research proposal while discovering a research gap from available literature including selection of research methods appropriate to meet desired outcomes of their research study.

Contents

1. Introduction of Research
2. Formulation and Selection of Research Problems
3. The Hypothesis
4. Methods of Research Design
5. Experimental Research
6. Methodology
7. Data Collection
8. Data Analysis
9. The Research Report

Recommended Texts

1. Jadhav, K.G., Pagare S.B., & Singh, S.K. (2007). *Research process in physical education & sports: an introduction.* New Delhi, India: Khel Sahitya Kendra Publishers.
2. Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2015). *Research methods in physical activity* (7th ed.). Champaign, IL: Human Kinetics.

Suggested Readings

1. Price, M. (2013). *Lab reports and projects in sport and exercise science: A guide for students.* London, UK: Routledge.
2. Bell, J., & Waters, S. (2014). *Doing your research project: A guide for first time researchers* (6th ed.). London, UK: McGraw Hill.
3. Veal, A. J., & Darcy, S. (2014). *Research methods in sport studies and sport management: A practical guide.* London, UK: Routledge.
4. Smith, M. F. (2018). *Research methods in sport* (2nd ed.).London, UK: Sage Publications.

Last Update: September 2020

COURSE OUTLINE

Course Title: Methods of Research in Sports
Course Code: PEDU-~~0122~~ 6311
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

Research is a source of understanding and development of the classroom teaching and learning activity. This course will create awareness of the potential role of research in professional development of prospective sports managers. In addition this course will equip students with prerequisite knowledge and skills necessary to become good researchers, which is going to develop the research mindedness and aptitude among the students to infuse the knowledge in their routine practices

INTENDED LEARNING OUTCOMES

At the completion of the course the student will be able to:-
Identify the researchable problems being faced by the sportsmen and sports organizations. They can also develop research proposals and plan and carryout research projects this solving the problems in sports sciences and also learn to formulate research designs, data analysis and result interpretations

COURSE CONTENTS

1. Introduction of Research
   - Meaning and Definition
   - What is research?
   - What is scientific Research?
   - Steps in Scientific Research.
   - Types of Research
   - Scope of research in physical education.
2. Formulation and Selection of Research Problems
   - Identification of Problem
   - Sources Of Research Problem
   - Criteria In Library in Selecting Research Problem
   - Major Sources of Related Literature
   - Review of Related Literature
3. The Hypothesis
   - Definition
   - Types of Hypothesis
   - Importance of Hypothesis
   - Characteristics of Good Hypothesis
   - Hypothesis Testing
4. Methods of Research Design
   - Analytical Research
   - Descriptive Research
   - Co-relational Research
   - Causal comparative research
   - Ethnographic research
   - Experimental Research
   - Case Study
   - Survey Research
   - Scope for Survey Research in Physical Education and Sports
5. Experimental Research

- Types of Experimental Research
- Nature of Research Problems in Physical Education
- Experimental and Control Groups variables
- Experimental Design

6. Methodology
   - Population
   - Sampling Method and its types
   - Instruments
7. Data Collection
   - Primary Data
   - Editing of Primary data
   - Secondary Data
   - Use of statistics
   - Standard score
8. Data analysis
   - Descriptive
   - Inferential
9. The Research Report
   - Preliminaries of Writing Report
   - Report Format
   - Main Body Section
   - Typing Instructions
   - Oral Presentation
   - Footnotes
   - Illustrative Media Guideline References
   - References (APA style)

READINGS

1. Jadhav, K.G. *Research Process in Physical Education & Sports.*
2. Casey, A. (2018). *Conducting practitioner research in physical education and youth sport: reflecting on practice.* Abingdon, Oxon: Routledge.
3. Thomas, J. (2015). *Research methods in physical activity. Champaign*, IL: Human Kinetics.
5. Smith, M. F. (2018). *Research Methods in Sport. London*: Sage Publications.
6. Veal, A. J. (2014). *Research methods in sport studies and sport management: a practical guide. London*: Routledge, Taylor & Francis Group.
7. Price, M. (2015). *Lab reports and projects in sport and exercise science: a guide for students. London*: Routledge.
8. Bell, J., & Waters, S. (2018). *Doing your research project: a guide for first time researchers. London*: McGraw-Hill Education.

Last Update: September 2020

PEDU-~~6126~~ 6312 Practical Swimming **2 (0+2)**

This module introduces the student to the basic knowledge about the importance of gymnastics in physical education and its function in the formation of physical fitness. The student should get to know the gymnastic terminology, correct technique of performance, the methods of teaching and spotting procedures applied in primary gymnastics. The aim of the course is to familiarize students. Combine the lesion and benefits of gymnastics in terms of strength, flexibility, courage, coordination and determination and you have the making of a complete athlete who is reading for any sports or activity. To develop confidence in fundamental movements, experience, jumping, sliding, rolling, moving over, under and on apparatus and develop coordination and gross motor skills. Skilful and creative mastery of the body in the gymnastic context. Enhance knowledge and understanding of gymnastic as an aesthetic experience. Enrich personal and social development through interaction with others in a variety of structure context.

Contents

1. Introduction of gymnastic (Apparatus Work)
2. Methodology of teaching the headstand and the handstand
3. Methodology of teaching the cartwheel
4. Arms and shoulders strengthen exercises
5. Isolate and strengthen upper limb of the body
6. Trunk and back exercises
7. More difficult forms of headstands, handstands, rolls and cartwheels
8. Conducting & officiating skills
9. Improving the fundamental acrobatic skills
10. Methodology of teaching the hand standing and head standing
11. Coaching techniques about apparatus work of gymnastics
12. organizing and officiating
13. Improving the performance pair and trios basic routines for best performance and demonstration

Recommended Texts

1. Harrison, T., & Huang, Z. (2006). *Courage to fly* (1st ed.). Calgary, Alta., Canada: Red Deer Press.
2. Low, S. (2016). *Overcoming gravity: A systematic approach to gymnastics and bodyweight strength* (2nd ed.). Houston: Battle Ground Creative.

Suggested Books

1. Wirhed, R., Gabra, G., Salander, S., Courtney, M., Hogarth, B., & Murray, G. (2006). *Athletic ability and the anatomy of motion* (3rd ed.). Edinburgh: Elsevier.
2. Luo, Low, S., Chen, H., Chen, Z., & Liu, J. (2018). *Chao yuezhong li: Overcoming gravity: A systematic approach to gymnastics and bodyweight strength* (5th ed.). Xin beishi: Feng shu fang wen huachu ban she.
3. Schlegel, E., & Dunn, C. R. (2018). *The gymnastics book: The young performer's guide to gymnastics* (3rd ed.). New York: Firefly Books.

COURSE OUTLINE

Course Title: Practical Swimming
Course Code: PEDU -~~6126~~ 6312
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

This module introduces the student to the basic knowledge about the importance of gymnastics in physical education and its function in the formation of physical fitness. The student should get to kno the gymnastic terminology, correct technique of performance, the methods of teaching and spotting procedures applied in primary gymnastics. The aim of the course is to familiarize students with:

1. Basics of the theory of gymnastics. Flexibility and mobility in warm-ups - variations on multiple dynamic warm-ups, static stretches, and balance work.
2. Basic strength – development for disadvantaged leverage and basic prowess in gymnastics movements, shapes, and positions
3. Professional vocabulary, performing techniques, methodology and spotting schemes of exercises in general, acrobatic and artistic gymnastics.
4. The rules of a safe organizing and teaching the different forms gymnastic exercises during Physical Education classes.
5. To learn the rules, fundamental skills, history and safety of gymnastics.
6. To understand the structure, physiological, and performance effects of gymnastics.
7. To improve physical fitness, flexibility, balance through gymnastics and conditioning.

INTENDED LEARNING OUTCOMES

KNOWLEDGE:

1. has the ability to teach: warm-up and general gymnastic exercises, basic gymnastic vaults, fundamental gymnastic apparatus exercises, basic acrobatic gymnastics stunts
2. Knows which gym measures should be used to increase the level of motor skills, knows the principles of health promotion and healthy lifestyles.
3. knows the general rules and judging regulations in gymnastic sports and the principles of the organization of gymnastics competition

SKILLS:

1. Is able to identify and correct the errors in performing gymnastic exercises.
2. Knows how to choose and use in practice a variety of methods, forms and means for the implementation of lessons in gymnastics
3. recognizes the need to care for his own physical condition and health, increases the level of his physical fitness
4. Can use the supporting techniques in various gymnastic exercises, prepare a safe place to realize school classes in gymnastics, safely and properly use gymnastic equipment and apparatus.

COURSE CONTENTS

1. Introduction of gymnastic (Apparatus Work),techniques and methods
2. Warm up exercises at the wall bars and with skipping ropes; Methodology of teaching the headstand and the handstand
3. Warm up exercises with benches; Methodology of teaching the cartwheel
4. Arms and shoulders strengthen exercises
5. Isolate and strengthen upper limb of the body
6. Trunk and back exercises (Tuck rocks to stand ,Tuck activities with ball .Dish and tuck positions)
7. More difficult forms of headstands, handstands, rolls and cartwheels; Connecting exercises with sequences: Improving individual exercises.
8. Conducting & officiating skills
9. Improving the fundamental acrobatic skills, special the various forms of headstands, handstands rolls, limbers, dive roll and cartwheels.
10. Methodology of teaching the hand standing and head standing
11. Coaching techniques about apparatus work of gymnastics(Bar,Balls, Clubs, Hoops, Ribbons, And Ropes)
12. organizing and teaching set of warm-up exercises or set of exercises focused on the development of motor skills
13. Improving the performance pair and trios basic routines for best performance and demonstration

READINGS

- Gymnastics for everyone ;John benneth;American press
- Kurzak M. (2011) Elementy akrobatyki sportowej na lekcjach wychowania fizycznego. Wyd. RAABE. Warszawa

6313

PEDU-~~5103~~ Practical Games (Hand Ball + Volley Ball) **2(0+2)**

Games and sports are found in early human history and appear to be cultural universals. Volleyball and handball are popular indoor team event sports in which two teams are separated by centre line. Each team tries to score points by throwing/grounding a ball on the other team's net/court under organized rules. This course will Develop and share among members and others education, information, and leadership skills. Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities. The purpose of this course is to provide learning experiences that will lead to the development of basic skills in team sports. In addition to skill acquisition, the course will focus on how to plan and implement the four stages of skill development in games through the use of extending, refining, and application tasks. Students will be expected to achieve an intermediate level of skill in the selected team sports. Practice outside of class time and individual tutoring may be necessary for the students to achieve the expected performance level.

Contents

1. Introduction to Handball game
2. Ball, Ground, equipments, Measurement & Dimensions
3. Ball Catching, Ball throwing, Ball Passing, Ball Dribbling Skills
4. Jumps Shot, Penalty Shot, Throw off, Throw in, Offending & Defending Skills
5. Pivot, Goal Keeping Skills
6. Coaching Skills,
7. Conducting & Officiating Skills
8. Introduction to Volley Ball Game
9. Arms and shoulders strengthen exercises
10. Serving Skills
11. Digging (Passing) forearms, overhead
12. Ball Setting
13. Attack (Hitting)
14. Blocking – Attack; Defend
15. Defensive Skills – Rolling; Sliding

Recommended Books

1. Joyce, D. (2014). *High-performance training for sports* (2nd ed.). Champaign, IL: Human Kinetics.
2. Prentice, W. E. (2017). *Principles of athletic training: A competency-based approach* (16th ed.). Vancouver, B.C.: Langara College.

Suggested readings

1. Bompa, T. O., &Buzzichelli, C. (2015). *Periodization training for sports* (3rd ed.). Champaign: Human Kinetics.
2. Boyle, M. (2016). *New functional training for sports* (2nd ed.). Champaign, IL: Human Kinetics.
3. Konin, J. G., & Ray, R. (2019). *Management strategies in athletic training* (5th ed.). Champaign, IL: Human Kinetics.
4. Azar, F. M. (2019). *Illustrated tips and tricks in sports medicine surgery* (1st ed.). Philadelphia: Wolters Kluwer.

Last Update: September 2020

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Practical Games (Hand Ball + Volley Ball)
Course Code: PEDU -~~5103~~ 6313
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

Volleyball and handball are popular indoor team event sports in which two teams are separated by center line. Each team tries to score points by throwing/grounding a ball on the other team's net/court under organized rules.

This course will Develop and share among members and others education, information, and leadership skills. Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities.

INTENDED LEARNING OUTCOMES

1. Improve level of physical fitness.
2. Coaching /Analyze and critique skill performances of other class members.
3. Compose and perform their routines.
4. Perform beginning level skills on all events.
5. Demonstrate knowledge of the principles of particular event and physical fitness

COURSE SCHEDULE

1. Introduction to Handball, Warm up & Cool Down Methods & Techniques, Training methodology for fitness and Sports related components
2. Ball, Ground, equipments, Measurement & Dimensions
3. Ball Catching, Ball throwing, Ball Passing, Ball Dribbling Skills
4. Jumps Shot, Penalty Shot, Throw off, Throw in, Offending & Defending Skills
5. Pivot, Goal Keeping Skills,
6. Coaching Skills,
7. Conduct the Competition among the Students Conducting & Officiating Skills
8. Introduction to Volley Ball Game, Warm up & Cool Down Methods & Techniques, Training methodology for fitness and Sports related components
9. Arms and shoulders strengthen exercises
10. Serving Skills
11. Digging (Passing) forearms, overhead
12. Ball Setting
13. Attack (Hitting)
14. Blocking – Attack; Defend
15. Defensive Skills – Rolling; Sliding

READINGS

1. Wagner, H., Pfusterschmied, J., Von Duvillard, S. P., & Müller, E. (2012). *Skill-dependent proximal-to-distal sequence in team-handball throwing. Journal of Sports Sciences*, 30(1), 21-29.
2. Wagner, H., Finkenzeller, T., Würth, S., & Von Duvillard, S. P. (2014). *Individual and team performance in team-handball*: A review. Journal of sports science & medicine, 13(4), 808.

Last Update: September 202

PEDU-~~5104~~ 6314 Practical Athletics (Vertical & Horizontal Jumps) 2 (0+2)

This course is a graduate level practical course of M.Sc. Physical Education. The course covers theoretical topics as well as practical application and skill performance of horizontal and vertical jumps including long jump, triple jump, high jump, and pole vault. The main focus of the practical is to enable students to design a training program for themselves and for other athletes with coaching perspectives, containing general and specific warm up, cool down, static and dynamic stretching exercises, and practice of technical and tactical skills to improve physical performance. It will increase students' understanding with up to date rules and regulation framed by World Athletics (International Track and Field Organization). The practical sessions enable students to identify periodization of training ranging from off season training to peak season training, division of training program to micro, meso and macro cycles. It also familiar them with international records, events along with state of the art technology used in track and field events for continuous performance development process.

Contents

1. Introduction of Vertical & Horizontal Jumps
2. General Warm up & Cool Down Methods
3. Rules & Techniques of Vertical & Horizontal Jumps
4. Phase of Vertical & Horizontal Jump
5. Specific Exercise for Jumps
6. Polymeric Training, Stretch Shortening Cycle (SSC)
7. Full Squats, Jump Rope, Jump Squats
8. Dynamic and Static Exercises
9. Adjustment of Take off
10. Workout of Jumps, 1st, 2nd, 3rd, Phase
11. Coordination Exercises/ Speed Training
12. Dynamic Setup, Hip Flexor Stretch
13. Stepping, Air Cycling, Landing
14. Weight Training and Power Clean, Coaching Skills
15. Duties of Officials and Organizing Committee
16. Coaching Techniques & Demonstration

Recommended Texts

1. Shepherd, J. (2009). *101 Youth Athletics Drills.* London, UK: A & C Black Publisher Ltd.
2. Gifford, C. (2012). *Track and field* (7thed.). Mankato, MN: Amicus.

Suggested Readings

1. Rogers J. L. (2000).*USA Track & Field Coaching Manual*. Champaign, IL: Human Kinetics.
2. McGinnis, P. M.(2004). *Biomechanics of Sport and Exercise* (2nd ed.). Champaign, IL: Human Kinetics.
3. American Sport Education Program (2008). *Coaching youth track & field.* Champaign, IL: Human Kinetic.
4. Lewindon, D.,& Joyce, D. (2014). *High-Performance Training for Sports*. Champaign, IL: Human Kinetics.

Last Update: September 2021

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Practical Athletics (Vertical & Horizontal Jumps)
Course Code: PEDU -~~5104~~ 6314
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

This course would enable the students to know about the different technology being used in different games and sports along with its function for the purpose of understanding the movement, identifying the mistakes and developing the sporting skills and techniques. The student will also understand difference between the maximum, basic and absolute strength.

INTENDED LEARNING OUTCOMES

1. Improve level of physical fitness.
2. Coaching /Analyze and critique skill performances of other class members.
3. Compose and perform their routines.
4. Perform beginning level skills on all events.
5. Demonstrate knowledge of the principles of particular event and physical fitness

COURSE CONTENTS

1. Introduction of Vertical & Horizontal Jumps
2. General Warm up & Cool Down Methods
3. Rules & Techniques of Vertical jumps Phase of Vertical Jump
4. Specific Exercise for Jumps
5. Polymeric training, Stretch shortening cycle (SSC)
6. Full Squats, Jump Rope, Jump Squats,
7. Dynamic and static Exercises
8. Adjustment of Take off
9. Workout of Jumps, 1st, 2nd, 3rd, Phase
10. Coordination exercises/ Speed Training
11. Dynamic Setup, Hip Flaxier Stretch
12. Stepping, Air Cycling, Landing
13. Weight training and power clean, Coaching Skills,
14. Duties of officials and organizing committee
15. Coaching Techniques & Demonstration

READINGS

1. IAAF rules available on ww.iaaf.com

Last Update: September 2020

6315

PEDU-~~6121~~ Science of Sports Training **3 (3+0)**

This course is a graduate level course of M.Sc. Physical Education. Sports training course is designed to improv fitness level for the purpose of improving ability to perform a given sport. It includes corrective and restorat exercise, strength training, conditioning and cardiovascular training, sports specific techniques and drills, periodization, nutritional advice, mental and psychological training, and monitoring by a qualified trainer. The main aim of sports training is to improve the performance of athletes and is the most important aspect of Physical Education. The purpose of sports training is to achieve the highest possible sports result for a given individual. Training is efficient if this result is achieved with a minimal expenditure of time and energy. In accordance with the above statements, Science of Sports Training tells the reader how to achieve maximal results with minimum of effort. The purpose of athletic training is to achieve the highest possible sports result for a given individual. Training is efficient if this result is achieved with a minimal expenditure of time and energy. In accordance wi the above statements, Science of Sports Training tells the reader how to achieve maximal results with minimu of effort. The aim of sports training course is to achieve maximum individual or team efficiency in selected sports discipline limited by rules. Sports skills are presuppositions needed for implementing performanc in a selected sports discipline which is limited by rules. Such presuppositions are gained through motor learning.

Contents

1. Physical Fitness
2. Components of physical fitness
3. The Endurance Abilities
4. The Strength Abilities
5. The Speed Abilities
6. Flexibility
7. Psychological Training
8. Body Composition
9. Training Method
10. Training principles

Recommended Texts

1. Joyce, D. (2014). *High-performance training for sports* (2nd ed.). Champaign, IL: Human Kinetics.
2. Prentice, W. E. (2017). *Principles of athletic training: A competency-based approach* (16th ed.). Vancouver, B.C: Langara College.

Suggested Readings

1. Konin, J. G., & Ray, R. (2019). *Management strategies in athletic training* (5th ed.). Champaign, IL: Human Kinetics.
2. Gibson, A. L., Wagner, D. R., & Heyward, V. H. (2019). *Advanced fitness assessment and exercise prescription* (8th ed.). Champaign, IL: Human Kinetics.
3. Fox, C. L., A., M. G., Gainforth, H. L., &Petruzzello, S. J. (2020). *Thepsychology of exercise integrating theory and practice* (5th ed.). New York: Routledge

Last Update: September 2021

COURSE OUTLINE

Course Title: Science of Sports Training
Course Code: PEDU-~~6121~~ 6315
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

The purpose of this course is to enable students to understand the frame work, the types of Sports Training and Training methodologies in an effective organization
This course is designed to introduce the student to theoretical and practical concepts of exercise assessment, exercise interpretation and exercise prescription. The student will develop appropriate techniques used to recommend exercise prescription for healthy and unhealthy clients.

INTENDED LEARNING OUTCOMES

The objective of this course is to facilitate the students to develop essential scientific coaching approaches, skills needed to address complex sports issues

COURSE CONTENTS

1. **PHYSICAL FITNESS**
   - What is Physical fitness
   - Health related components
   - Skill related components
   - Importance of Physical fitness
2. **The Endurance Abilities**
   - Definition
   - Signification
   - Division
   - Training Exercises
3. **The Strength Abilities**
   - Definition of kinds of strength
   - Significance of the strength abilities
   - Training of strength abilities
   - Objective and training exercises of strength training
4. **The speed abilities**
   - characterization
   - significance of the speed abilities
   - training of the speed abilities
   - basic prerequisites for successful speed training
   - specific load requirements
5. **Flexibility**
   - Definition
   - Importance of Flexibility
   - Ballistic stretching
   - When is the best time to stretch?
6. **Body composition**
   - Body fat, fitness and health
   - Assessing body composition
   - Improving body composition
   - Body composition and athletic performance

7. **Training method**
    - Continues methods
    - Interval methods
    - Fartlek
    - Plyometrics
    - Circuit training/station training

READINGS

1. Berryman, N., Mujika, I., & Bosquet, L. (2019). *Concurrent Training for Sports Performance: The 2 Sides of the Medal*. International journal of sports physiology and performance, 14(3), 279-285.
2. Bompa, T. O., & Buzzichelli, C. (2018). *Periodization-: theory and methodology of training*. Human kinetics.
3. Issurin, V. B. (2019). *Biological background of block periodized endurance training: a review*. Sports Medicine, 49(1), 31-39.
4. Mujika, I., Sharma, A. P., & Stellingwerff, T. (2019). *Contemporary Periodization of Altitude Training for Elite Endurance Athletes: A Narrative Review*. Sports Medicine, 1-19.
5. Berryman, N., Mujika, I., Arvisais, D., Roubeix, M., Binet, C., & Bosquet, L. (2018). *Strength training for middle-and long-distance performance: a meta-analysis*. International journal of sports physiology and performance, 13(1), 57-64.
6. Sessa, F., Messina, G., Valenzano, A., Messina, A., Salerno, M., Marsala, G., ... & Russo, R. (2018). *Sports training and adaptive changes*. Sport Sciences for Health, 14(3), 705-708.
7. Konin, J. (2018). *Management Strategies in Athletic Training*, (5th ed.). Human Kinetics.
8. Gibson, A. L., Wagner, D., & Heyward, V. (2018). *Advanced Fitness Assessment and Exercise Prescription*. (8th ed.). Human kinetics.

Last Update: September 2021

6316

PEDU-~~6125~~ Sports Psychology **3 (3+0)**

The course is an introduction to the theoretical and practical aspects of Sports Psychology. The purpose of the course is to provide the student with the basic knowledge of psychological factors and processes that influence an individual in sports. Focus is placed on a research-to-practice orientation that is used to prepare for sports performance. The main objective of the designed content is as the bridge to meet the gap in psychological disorders and elite sports performance also inspiring the students to enhance their ability to work closely with both performers and coaches. It also focuses on teaching skills to enhance athletic performance such as goal setting, imagery and injuries rehabilitation. Moreover, helping the athletes and people to achieve their full sporting and exercise potential by solving their complex problems and working as the part of a team. This course also examines psychological theories and research and their application to the sport/physical activity-related affect, behaviours and cognitions of participants as well as the individual and environmental factors which shape these outcomes. Students will understand and be able to apply critical psychological knowledge to enhance learning and sports performance, such as Psychological Skills Training (PST). Applications are made to future practitioners of coaching, teaching, sports medicine, counselling, sport management, and fitness instruction.

Contents

1. Introduction to Sports Psychology
2. Personality and sports
3. Nervous System of Human Body
4. Arousal, stress and anxiety
5. Cognitive and Behavioural Interventions for Peak Performance
6. Motivation and Performance
7. Concentration
8. Aggression in sports
9. Stress
10. Goal Setting
11. Self Confidence
12. Group Cohesion

Recommended Books

1. Tenenbaum, G. (2015). *Applied sport psychology* (7th ed.). Milton Park, Abingdon, Oxon: Routledge.
2. Weinberg, R. S., & Gould, D. (2019). *Foundations of sport and exercise psychology* (7th ed.). Champaign, IL: Human Kinetics.

Suggested Readings

1. L., V. R., & Brewer, B. W. (2014). *Exploring sport and exercise psychology* (3rd ed.). Washington, D.C.: American Psychological Association.
2. Horn, T. S., & Smith, A. L. (2019). *Advances in sport and exercise psychology* (4th ed.). Champaign, IL: Human Kinetics.
3. Tod, D., & Eubank, M. (2020). *Applied sport, exercise, and performance psychology: Current approaches to helping clients*. Abingdon, Oxon: Routledge.
4. Fox, C. L., A., M. G., Gainforth, H. L., &Petruzzello, S. J. (2020). *Thepsychology of exercise integrating theory and practice* (5th ed.). New York: Routledge.

Last Update: September 2020

COURSE OUTLINE

Course Title: Sports Psychology
Course Code: PEDU-~~6125~~ 6316
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course intends to provide an insight into the psychological factors associates with sports performance, Exercise and other type of physical activities. Students are guided to provide psychological assistance with injury rehabilitates, pain tolerance, performance enhancement, relaxation etc

INTENDED LEARNING OUTCOMES

The focus is primarily in helping athletes using psychological principles and skills to achieve optimal mental health and to enhance performance. After this course students are able

- To deal Psycho-Pathological disorders of the athletes
- Consult with athletes and teams with a view to providing psychological skills training appropriate ... the individual and commensurate with their level of participation.
- Consult with organizations, individuals and exercise professionals with regards to exercise psychology skills training and consultation.
- Organize and operate workshops for coaches, teachers and exercise specialist in aspects of sport an... exercise psychology.

- Guide and advise clubs, schools, coaches, parents and athletes in the application of sport psychology theories and practices and assist in the area of planning and implementing policy relating to participation, performance and periodisation of the training from a psychological perspective.
- Provide an arena for sports people to engage in reflective assessment of their involvement in sports, exercise and future developments.
- Plan and conduct research in sport and exercise

COURSE CONTENTS

13. **Introduction to Sports Psychology**
    - Introduction of sports psychology
    - Significance of psychology in sports
    - Psychological obstacles for performance
1. **Personality and sports**
    - Introduction
    - Theories of personality
    - Measurement of personality
    - Personality and sports performance
2. **Nervous System of Human Body**
    - Structure and control of movement
    - Factors affecting performance
    - Fatigue (central and peripheral)
    - Glands and their effects on behavior
    - Response mechanism is human body
    - Neuro physiology of arousal
3. **Arousal, stress and anxiety**
    a. Defining and understanding arousal anxiety and stress
    b. Identifying source of stress and anxiety
    c. Theories of stress
    d. Neuro chemical aspects of stress

e. Dynamics of sports stress
f. Effects of sports stress
g. Connecting arousal and anxiety to performance

4. **Cognitive and Behavioral Interventions for Peak Performance**
   - Relaxation strategies (breathing, meditation, progressive relaxation techniques, bio feedback, autogenic training and mind to muscle or muscle to mind relaxation).
   - Arousal energizing strategies (goal setting, pep talks, pre competition work outs, self talks, self thoughts, interaction between parent coach and athlete coach, fan support publicity and news coverage).
   - Hypnosis (suggestions)
5. **Motivation and Performance**
   - Introduction to motivation
   - Types and theories of motivation
   - Sports motivation scale
   - Positive reinforcement and performance feed back
   - Self confidence
   - Goals setting
6. **Concentration**
   - Types of intentional focus (measurement of intentional focus, experimental approach, psychometric approach and neuro scientific approach).
   - Importance of concentration in sports
   - Principles of effective concentrations
   - Factors that effects concentration
   - Techniques to enhance concentration
- **Aggression in sports**
   - Introduction and types of aggression?
   - Theories of aggression
   - Measurement of aggression in sports
   - Reducing aggression in sports
7. **Goal Setting**
   - Introduction of goals settings in sports
   - Types of goals
   - Rational of goal settings
   - How goals effect performance
   - Criteria for goal selection (guide lines for principles of goal settings)
   - Common pit falls in goals setting

8. **Self Confidence**
   - Introduction of sports self confidence
   - Influence of self confidence on sports performance
   - Conceptual models of self confidence
   - Sources of self confidence
   - Development of self-confidence through self-talks self-thoughts and psychological momentum for peak performance.
9. **Group Cohesion**
   - Introduction and types of cohesion
   - Measurement of cohesion
   - Factors effecting cohesion
   - Interventions to enhance sports cohesion

- Introduction of conflicts
- Types of conflicts
- Strategies of conflict management

READINGS

1. Weinberg, R. S., & Gould, D. S. (2018). *Foundations of sport and exercise psychology.* Human Kinetics.
2. Perry, J. (2016). *Sport psychology: A complete introduction. Teach Yourself.*
3. Lane, A. M. (Ed.). (2015). *Sport and exercise psychology.* Routledge.
4. Van Raalte, J. L., & Brewer, B. W. (2014). *Exploring sport and exercise psychology* American Psychological Association.
5. Moran, A. P. (2013). *Sport and exercise psychology: A critical introduction.* Routledge.

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

PEDU-~~6124~~ Measurement Evaluation in ~~Human Performance~~ **3 (3+0)**

This course is designed to understand the fundamental and functional statistical tests, assessments, techniques, and evaluation concepts in the psychomotor, cognitive and affective domains; activities include collection and computer analysis of data in the area of Physical Education at various levels. It also provides the range of tests and techniques for testing Physical fitness, motor abilities and specific sports skills. e.g. (Reaction time, Endurance, Muscular Strength, Flexibility, Balance, Power, Speed, Agility, Coordination, Test criteria, Methods of grading etc.) This course is intended to address the current practices in conducting data-based measurement and evaluation processes. Specifically, this course will examine statistical techniques necessary for manipulation and interpretation of various performance data. Descriptive statistics will be introduced and used for decision making. The purpose of this course is to introduce students to the fundamental aspects of the measurement, analytic, and evaluative process for measuring Human Performance. The course includes both theoretical and practical applications. The final section will explore the validity, reliability, and objectivity evidence for written tests and tests of physical fitness and physical activity.

Contents:

1. Introduction to Measurement and Evaluation
2. Grading in Physical Education
3. Basis of Statistics
4. Construction & Administration of a Test
5. Scales of Measurement
6. Characteristics of standard test
7. Evaluation of Aerobic Fitness or (Vo2 Max) Cardio – Vascular Fitness Aerobic Fitness
8. Measurement of Physical Fitness
9. Motor Performance Measurement
10. Evaluating Body Composition
11. Measurement of competitive sports skills
12. Measurement of Athletic skills

Recommended texts

1. Morrow, J. R., Mood, D., Disch, J. G., & Kang, M. (2016). *Measurement and evaluation in human performance* (5th ed.). Champaign, IL: Human Kinetics.
2. Lacy, A. C., & Williams, S. M. (2018). *Measurement and Evaluation in Physical Education and Exercise Science* (8th ed.). New York: Routledge/Taylor & Francis Group.

Suggested readings

1. Winnick, J. P., &Porretta, D. L. (2017). *Adapted physical education and sport* (6th ed.). Champaign, IL: Human Kinetics.
2. Ehrman, J. K., Liguori, G., Magal, M., &Riebe, D. (2018). *ACSM's guidelines for exercise testing and prescription* (10th ed.). Philadelphia, PA: Wolters Kluwer.
3. Gibson, A. L., Wagner, D. R., & Heyward, V. H. (2019). *Advanced fitness assessment and exercise prescription* (8th ed.). Champaign, IL: Human Kinetics.
4. Miller, D. K. (2020). *Measurement by the physical educator: Why and how* (8th ed.). New York, NY: McGraw-Hill Education.

Last Update: September 2020

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Measurement Evaluation in ~~Human Performance~~ Sports Test.
Course Code: PEDU-~~6124~~ 6317
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course aims to provide the students a comprehensive coverage regarding measurement and evaluation in Sports, why it is important, it includes: Probability theories sampling, T tests, Chi-Square, Analysis of Variance, (ANOVA) linear and multiple regression in Sports.

INTENDED LEARNING OUTCOMES

At the end of this course, the students/learners will be able to have a comprehensive approach:

1. Understand and use statistical concepts in assessing and evaluation of physical education.
2. Understand the function of measurements
3. Carryout research in various aspects of physical education
4. Evaluate sports performance, physical education instructional programmes and physi activities.

COURSE CONTENTS

1. **Introduction to Measurement and Evaluation**
   - Significance and Importance of Test Measurement and Evaluation in Physical Education.
   - Norm Referenced & Criterion referenced measurement.
   - Formative and summative measurement

2. **Construction & Administration of a Test**
   - Test construction and guidelines criteria required for a standard test
   - Test administration
   - Pre test responsibilities
   - During the test responsibilities
   - Post test responsibilities

3. **Characteristics of standard test**
   - Criterion referenced measurement
   - Norm referenced measurement
   - Validity
     - Validity of criterion referenced measurement
     - Validity of norm referenced measurement
     - Factors affecting validity
   - Reliability
     - Reliability of criterion referenced measurement
     - Reliability of norm referenced measurement
     - Factors affecting reliability
   - Objectivity
     - Administrative feasibility
     -

4. **Scales of Measurement**
   - Ordinal scale
   - Nominal scale

- Interval scale
- Ratio scale

5. **Components of Physical Fitness Testing and Measurement**
   - Cardiovascular Endurance
   - Muscular Strength
   - Muscular endurance
   - Flexibility
   - Body Composition
6. **Components of Motor Skills Testing and Measurement**
   - Power
   - Agility
   - Balance
   - Coordination
   - Speed
   - Reaction time

7. **Grading System in Physical Education**
   - Purpose of grading
   - Criteria of grading
   - Methods of grading
8. **Fundamental Concepts of Statistics**
   - Introduction to statistics
   - Use of Statistics in Measurement & evaluation
   - Organizing and graphing of test scores
   - Descriptive statistics inferential & inductive statistics
   - Standard score, Z score, T score
   - T test for one groups
   - T test for two independent groups
   - T test for two dependent groups
   - One way A Nova Repeated Measures
   - Two – way A Nova factorial design
   - Measurement of central tendency
   - Measurement of variability / variance

   Correlation and standard deviation
9. **Evaluating Body Composition**
   - Body density, percentage of body fat
   - Anthropometric assessment of body composition
   - Skin fold assessment of fat percentage
10. **Measurement of competitive sports skills**
    - Athletics
    - Field events
    - Track events
    - Games

Basketball, Football, Volleyball, Tennis, Badminton, Cricket, Table tennis, Handball, Hockey

READINGS

1. Lacy, A. C., & Williams, S. M. (2018). *Measurement and evaluation in physical education and exercise science*. Routledge.
2. Morrow Jr, J. R., Mood, D., Disch, J., & Kang, M. (2015). *Measurement and Evaluation in Human Performance*. (5th ed.). Human Kinetics.
3. Miller, D. K. (2013). *Measurement by the physical educator: Why and how*,(7th ed.) New York: McGraw-Hill.
1. Winnick, J., & Porretta, D. (Eds.). (2016). *Adapted Physical Education and Sport*, (6th ed.). Human Kinetics.
2. Morrow Jr, J. R., Mood, D., Disch, J., & Kang, M. (2015). *Measurement and Evaluation in Human Performance*, (5th ed.). Human Kinetics.
3. Gibson, A. L., Wagner, D., & Heyward, V. (2018). *Advanced Fitness Assessment and Exercise Prescription*, (8th ed.). Human Kinetics.

6318

PEDU-~~6132~~ Research/ Project/Thesis/Internship **3 (3+0)**

This course provides students with an introduction to the research topic, research design and methodologies in th fields of sport science, physical education and recreation. Students will learn to read and interpret existing research articles, select appropriate methodologies for a researchable question, and conduct a literature review on a topic of interest. This course will also be an introduction to preparing a research proposal including selecting research methods appropriate to meet the desired outcomes of a study. Researchers within the Physical Educatio Research Forum aim to engage in research that enhances our understanding of what effective teaching an learning is so that current policy, practice and professional development can be improved challenged and ev transformed. This course requires the student to devise, conduct, and present a project examining an applie sports science issue. The student will be expected to work mainly independently in order to gain practical experience of topic selection, research design, data collection and data analysis. The project is submitted in APA format. Students will be encouraged to work in areas of different sports, coaching techniques and injuries prevention. During the 3rd semester the student will submit a research proposal and ethics application. The final project will be submitted towards the end of the 4th semester in APA format.

Contents

1. Introduction of Research Proposal / Thesis/ Project
2. Formulation and selecting of Research Problems
3. Selection of a topic
4. Submission of research topic
5. Changes/Corrections
6. Presentation
7. How to write an Introduction
8. Literature Review
9. Research Proposal / Synopsis Viva/ Defence

Recommended Texts

1. Thomas, J. (2015). *Research methods in physical activity.* Champaign, IL: Human Kinetics.
2. Casey, A. (2018). *Conducting practitioner research in physical education and youth sport: reflecting on practice*. Abingdon, Oxon: Routledge.

Suggested Readings

1. Veal, A. J. (2014). *Research methods in sport studies and sport management: A practical guide. London*: Routledge, Taylor & Francis Group.
2. Price, M. (2015). *Lab reports and projects in sport and exercise science: A guide for students.* London: Routledge.
3. Bell, J., & Waters, S. (2018). *Doing your research project: A guide for first time researchers*. London: McGraw-Hill Education.
4. Smith, M. F. (2018). *Research Methods in Sport.* London: Sage Publications.

Last Update: September 2020

COURSE OUTLINE

Course Title: Research/ Project/Thesis/Internship
Course Code: PEDU-~~6132~~ 6318
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course has a vocational focus. It assists students to develop skills in research and scientific communication in the relevant discipline. Topics addressed include design and performance of experiments or action research, analysis and presentation of research data, and preparation of oral and written scientific reports that use these skills. The aim of the course is to prepare students to apply research focused on one of the following: sports psychology, sports medicine, sports management, sports management etc.

INTENDED LEARNING OUTCOMES

1. Learning activities may include any or all of the following:
2. Negotiating a research topic in consultation with a research supervisor.
3. Preparing a project outline that includes project aims, objectives, an indicative summary o methodology, and potential outcomes.
4. Undertaking a literature review related to the topic, including preparing a reference list.
5. Planning for, and performing project work under the guidance of a supervisor.
6. Participating in supervisory meetings and attending departmental seminars.
7. Writing and editing a research project in consultation with a supervisor.
8. Preparing and presenting a seminar on the research project and Conduct an independent research project under supervision.

COURSE CONTENTS

1. Introduction of Research Proposal / Thesis/ Project
2. Formulation and selecting of Research Problems
3. Selection of a topic
4. Submission of research topic
5. Changes/Corrections
6. Presentation
7. How to write an Introduction
8. Literature Review
9. Research Proposal / Synopsis Viva/ Defense

READINGS

1. Dr. SMT. K.G. JADHAV. *Research Process in Physical Education & Sports.*
2. Casey, A. (2018). *Conducting practitioner research in physical education and youth sport: reflecting on practice*. Abingdon, Oxon: Routledge.
3. Thomas, J. (2015). *Research methods in physical activity. Champaign*, IL: Human Kinetics.
4. Smith, M. F. (2018). *Research Methods in Sport. London*: Sage Publications.
1. Veal, A. J. (2014). *Research methods in sport studies and sport management: a practical guide. London*: Routledge, Taylor & Francis Group.
2. Price, M. (2015). *Lab reports and projects in sport and exercise science: a guide for students. London*: Routledge.
3. Bell, J., & Waters, S. (2018). *Doing your research project: a guide for first time researchers. London*: McGraw-Hill Education.

6319

PEDU-~~5114~~ Practical Athletics (Middle & Long Distance Races) **2 (0+2)**

During course students will develop their running skills as well as their knowledge of the rules equipment and central form of athletics. Compose and perform their routine. Demonstrate knowledge of the principles of particular event and races, they will also develop motor skills and gain the necessary how-know for races. The basis of the knowledge athletes and coaches develop their individual reactions to different training approaches there is adaptation and transformation when training methods are displaced and enacted by different athletes. Th paper analyses the evolution of training methods in distance running and highlights knowing as a local enactmen that involved a process of displacing and transformation the importance of the cardio-vascular functions for the improvement of resistance alongside the use of message, breathing exercises, and appropriate diet.

Contents

1. Introduction/rules and regulations of middle and long distance races
2. General and specific warm-up and cool down exercises.
3. Races with different intensity
4. Resistance Training
5. Starting technique, acceleration and finishing technique.
6. Endurance training (aerobic, anaerobic and work capacity)
7. Strength training (absolute strength, general strength, elastic strength and strength endurance)
8. Speed training (absolute speed, speed endurance, optimal speed)
9. Multi pace training
10. Coordination exercises (agility, mobility, balance, technical execution)
11. Fartlek training
12. Power training
13. Introduction of periodization training
14. Importance of weight training
15. Specification to complete the middle and long distance races
16. Duties of officials and organizing committee

Recommended Books

1. Konin, J. G., & Ray, R. (2019). *Management strategies in athletic training* (5th ed.). Champaign, IL: Human Kinetics.
2. Cleary, M., & Flanagan, K. W. (2019). *Acute and emergency care in athletic training*. Champaign, IL. Human Kinetics.

Suggested Readings

1. Cartwright, L. A., & Peer, K. (2018). *Fundamentals of athletic training* (4th ed.). kent, state university united state of america. Champaign, IL. Human Kinetics.
2. Kaufman, K. A., Glass, C. R., &Pineau, T. R. (2018). *Mindful sport performance enhancement: Mental training for athletes and coaches*. American Psychological Association.

Last Update: September 20

COURSE OUTLINE

Course Title: Practical Athletics (Middle & Long Distance Races)
Course Code: PEDU -~~5114~~ 6319
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

During course students will develop their running skills as well as their knowledge of the rules equipment and central form of athletics. Compose and perform their routine. Demonstrate knowledge of the principles of particular event and races, they will also develop motor skills and gain the necessary how-know for races.

INTENDED LEARNING OUTCOMES

- The capacity to set personal goals, understand and appreciate the concept of fair play.
- Love for and enjoyment of races.
- Enhance social development through participation in group activities.
- Perform basic level of coaching and performing skill required in middle and long distance races
- Identification of challenges and coping strategies.

COURSE SCHEDULE

1. Introduction/rules and regulations of middle and long distance races(800, 1500, 3000m).
2. General and specific warm-up and cool down exercises.
3. Races with different intensity
4. Resistance Training
5. Starting technique, acceleration and finishing technique.
6. Endurance training (aerobic, anaerobic and work capacity).
7. Strength training (absolute strength, general strength, elastic strength and strength endurance).
8. Speed training (absolute speed, speed endurance, optimal speed).
9. Multi pace training.
10. Coordination exercises (agility, mobility, balance, technical execution).
11. Fartlek training.
12. Power training
13. Introduction of periodization training.
14. Importance of weight training.
15. Specification to complete the middle and long distance races.
16. Duties of officials and organizing committee

READINGS

1. International Association of Athletic Federation Rules is available on Www.Iaaf.Com.

Last Update: September 202[illegible]

6320

PEDU-~~5107~~ Practical Game (Football, Basketball) **2 (0+2)**

This course will enable the students to know about the different technology being used in different games and sports along with its function for the purpose of understanding the movement, identifying the mistakes and developing the sporting skills and techniques. The student will also understand difference between the maximum, basic and absolute strength. Sports help students to develop their physical skills, get exercise, make friends, have fun, learn to play as a member of a team, learn to play fair, and improve esteem. The major objective of the course games and sports to get freedom from the stress, worries. Sports and Games are mental and physical activities and contest. Moreover, it increases the immunity of the person. As it increases the blood flow in the body and makes it adaptable for exertion. Develops knowledge and appreciation of various game forms. Analyses game structures and processes. It also develop performance competency in games through experiential learning. Explores and analyses potentially positive and negative outcomes of participating in games and sport. People play games for their fitness or enjoyment. Games and sports have valuable status in our life.

Contents

1. Introduction to games
2. Passing, Accuracy, Dribbling
3. Receiving, kicking, Shooting, Penalties
4. Jogging, Throwing, Heading, Volley
5. Demonstration & Presentation of Skills
6. Coaching Skills, Conducting &Officiating Skills
7. Simple Passing, Throwing, Catching, Side Pass, Chest Pass, Tip Pass
8. Dribbling with Running, Shooting Style, Layup, Setup
9. Conduct Competition
10. Demonstration & Presentation of Skills
11. Coaching Skills
12. Conducting &Officiating Skills

Recommended Texts

1. Galat, J. (2017). *Coaching youth football*. Champaign, IL: Human Kinetics.
2. Gillett, J., & Burgos, B. (2020). *Strength training for basketball*. Champaign, IL: Human Kinetics.

Suggested Readings

1. Tod, D., & Eubank, M. (2020). *Applied sport, exercise, and performance psychology: Current approaches to helping clients*. Abingdon, Oxon: Routledge.
2. Murray, R., & Kenney, W. L. (2020). *Practical guide to exercise physiology: The science of exercise trainin and performance nutrition*. Champaign, IL: Human Kinetics.
3. Ehrman, J. K., Liguori, G., Magal, M., &Riebe, D. (2018). *ACSM's guidelines for exercise testing and prescription* (10th ed.). Philadelphia, PA: Wolters Kluwer.
4. Konin, J. G., & Ray, R. (2019). *Management strategies in athletic training* (5th ed.). Champaign, IL: Human Kinetics.

Last Update: September 202

COURSE OUTLINE

Course Title: Practical Game (Football, Basketball)
Course Code: PEDU-~~5107~~ 6320
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

This course would enable the students to know about the different technology being used in different games and sports along with its function for the purpose of understanding the movement, identifying the mistakes and developing the sporting skills and techniques. The student will also understand difference between the maximum, basic and absolute strength.

INTENDED LEARNING OUTCOMES

1. Improve level of physical fitness.
2. Coaching /Analyze and critique skill performances of other class members.
3. Compose and perform their own routines.
4. Perform beginning level skills on all events.
5. Demonstrate knowledge of the principles of particular event and physical fitness

COURSE SCHEDULE

1. Introduction, Passing, Accuracy, Dribbling.
2. Receiving, kicking, Shooting, Penalties.
3. Jogging, Throwing, Heading, Volley.
4. Demonstration & Presentation of Skills, Coaching Skills, Conducting &Officiating Skills.
5. Simple Passing, Throwing, Catching, Side Pass, Chest Pass, Tip Pass.
6. Dribbling with Running, Shooting Style, Layup, Setup.
7. Conduct Competition Demonstration & Presentation of Skills, Coaching Skills, Conducting &Officiating Skills.

READINGS

1. Federation of International Football Associations Rules available at official web site http:/http://www.theifab.com/home
2. International Basket Ball Federation Rules available at official website http://www.fiba.basketball/rule-differences

Last Update: September 2020

6321

PEDU-~~5146~~ Practical Small Area Games **2 (0+2)**

Our main objective of this program seeks to emphasize the enhancement of professional abilities and skills of the students with overall leadership qualities. Through these type of practical activities and minor area games to enhance fundamental Motor Skills and their effective application in a game, basic offensive and defensive games strategies, as well as learning the importance of fair play, safe practises and cooperative involvement .We develop students' physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. Participation in non-traditional games and activities promotes lifelong leisure, decision making, problem solving, and communication skills. We want our students will become professional in many different forms like, teachers, coaches, officials and even trainers for a gym.

Contents

1. Introduction/History of minor area games
2. Proper physical and mental activeness
3. Creative skills
4. Designing of minor area games
5. Games as medium: "Magic circle", game rules, role of choice and challenge
6. Demonstration and presentation
7. Designed games as play: varieties of games experience (easy to difficult)
8. Games such as circle ball chase, dogging, plucking the tails, leg cricket, 2-ball soccer, backboard ball and poison tag etc
9. Combat sports and tug of war
10. Coaching skills

Recommended Texts

1. Jeffreys, I., & Moody, J. (2016). *Strength and conditioning for sports performance*. Abingdon, Oxon: Routledge.
2. Kaufman, K. A., Glass, C. R., &Pineau, T. R. (2018). *Mindful sport performance enhancement: Mental training for athletes and coaches*. American Psychological Association.

Suggested Readings

1. Pirlo, A. (2014). *Andrea Pirlo: I think therefore I play*. London: BackPage Press.
2. Zeri, F., Pitzalis, S., Di Vizio, A., Ruffinatto, T., Egizi, F., Di Russo, F., &Naroo, S. A. (2018). Refractive error and vision correction in a general sports-playing population. *Clinical and Experimental Optometry, 101*(2), 225-236.
3. Clark, N. (2019). *Nancy Clark's sports nutrition guidebook*. (5th ed.) Champaign,IL: Human Kinetics.

Last Update: September 202

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Practical Small Area Games
Course Code: PEDU ~~5116~~ 6321
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

Our main objective of this program seeks to emphasize the enhancement of professional abilities and skills of the students with overall leadership qualities. We develop students' physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. We want our students will become professional in many different forms like teachers, coaches, officials and even trainers for a gym.

INTENDED LEARNING OUTCOMES

1. Upon completion of course students will be able to:

   Write and think critically about the history and evolution of games, including the situation of specific games within recognized game genres.
2. Analyze the design of traditional and digital games, identifying the role of critical design variables such as challenge, choice, asset allocation, role of narrative, etc.
3. Analyze and critique game experience, relating it to the fundamentals of game design.

COURSE CONTENTS

1. Introduction/History of minor area games.
2. Proper physical and mental activeness.
3. Creative skills.
4. Designing of minor area games.
5. Games as medium: "Magic circle", game rules, role of choice and challenge.
6. Demonstration and presentation.
7. Designed games as play: varieties of games experience (easy to difficult).
8. Games such as circle ball chase, dogging, plucking the tails, leg cricket,2-ball soccer, backboard ball and poison tag etc.
9. Combat sports and tug of war.
10. Coaching skills.

READINGS

https://peplus.wordpress.com/category/minor-games/

Last Update: September 2024

PEDU-~~6131~~ 6322 Sports Bio-Mechanics **3 (3+0)**

The course will provide the theoretical and experimental basis required for the application of biomechanics in th areas of sport and exercise. Biomechanics in Sports incorporates detailed analysis of sport movements in order to minimize the risk of injury and improve sports training equipment and techniques. Student and teachers will learn how to design a quantitative analysis, collect, analyse and interpret data obtained from the equipment associated with the measurement technique. From the analysis work of this course, student teachers will be expected to examine the relationship between performance measure and human motor system. The purpose of the course is to develop the student teacher's ability to conduct biomechanical analysis independently and to apply the knowledge in teaching and coaching as well as understanding of athletic performance through mathematical modelling, computer simulation and measurement, and enabling the learners/athletes to pursue their potential at highest level. Data will be collected and processed during laboratory sessions to examine relationships between displacement, velocity and acceleration, force, power, energy, impulse, momentum and fluid dynamics. Laboratory investigations will explore centre of mass, ground reaction forces and 2-dimensio motion analysis, qualitative and quantitative analysis of human movement.

Contents

1. Introduction to Sports Bio-Mechanics
2. Forces
3. Kinematic Concepts for Analyzing Human Motion
4. Linear Kinematics for Analyzing Human Movement
5. Kinetic Concepts for Analyzing Human Movement
6. Linear Kinetics for Analyzing Human Movement
7. Angular Kinematics of Human Movement
8. Angular Kinetics of Human Movement
9. Equilibrium and Human Movement
10. Fluid Mechanism and Human Movement
11. Mechanical Analysis of competitive Sports Techniques
12. Mechanical Analysis of Track & Field Events

Recommended Texts

1. Hall, S. J. (2019). *Basic biomechanics* (8th ed.). New York, NY: McGraw-Hill Education.
2. Pangrazi, R. P., &Beighle, A. (2020). *Dynamic physical education for elementary school children* (19th ed.). Champaign, IL: Human Kinetics.

Suggested Readings

1. Bartlett, R. (2014). *Introduction to sports biomechanics: Analysing human movement patterns* (3rd ed.). Milton Park, Abingdon, Oxon: Routledge.
2. Watkins, J. (2014). *Fundamental biomechanics of sport and exercise* (1st ed.). New York:Routledge/Taylor & Francis Group.
3. Payton, C., & Burden, A. (2018). *Biomechanical evaluation of movement in sport and exercise: The British Association of Sport and Exercise Sciences guide* (3rd ed.). Abingdon, Oxon: Routledge.
4. McGinnis, P. M. (2020). *Biomechanics of sport and exercise* (4th ed.). Champaign, IL: Human Kinetics.

Last Update: September 2021

COURSE OUTLINE

Course Title: Sports Bio-Mechanics
Course Code: PEDU - ~~6131~~ 6322
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course intends to develop fundamental mechanical concepts and Principles, which govern human movement, and the effect of forces which act on human body while moving on land, in water or in the air. This course presents the in-depth study in functional anatomy and mechanics of human movement.

INTENDED LEARNING OUTCOMES

After the successful completion of the course the Student understands will be enhanced regarding the integration of anatomical and mechanical aspects of human motion like

- Expert knowledge on the roles of physical activity and sports exercise in rehabilitation.
- The means and techniques to ensure athletes and sports people can perform to their maximum capacity whilst limiting the injury process.
- The ability to use your skills and knowledge to successfully increase your level of integration of sport, biomechanics, exercise medicine and rehabilitation within your respective profession or discipline.
- The skills and knowledge to undertake a substantive research project in specialty. Students will gain new insights and also the foundations for studying for a higher research degree.

COURSE CONTENTS

1. **Introduction to Sports Bio-Mechanics**
   - Definition & Perspective, Significance and Function of Bio-Mechanics.
   - Description of mechanics.
   - Solving qualitative and quantitative problems.
   - Units of measurements.
   - History of bio-mechanics
2. **Forces**
   - Define force
   - Types of forces and Effects
   - Free-Body Diagrams
   - Define friction force and Types
   - Friction in sports and human movement
   - Define weight & Equilibrium
3. **Kinematic Concepts for Analyzing Human Motion**
   - Define Motion and its types
   - Angular motion / rotation about internal and external axis
   - Anatomical Reference position and Planes
   - Tools for measuring kinematic quantities
4. **Linear Kinematics for Analyzing Human Movement**
   - Scalar and vector quantities
   - Distances & Displacement

- Speed & Velocity
- Acceleration & Projectiles motion in sports

5. **Kinetic Concepts for Analyzing Human Movement**
   - Basic concepts related to kinetics (angular & linear) Mass, Inertia, Volume, Density, Pressure, Torque, Center of Gravity, Work, Power and Energy.
   - Mechanical loads that act on human body
   - The effects of loading
   - Tools for measuring kinetic quantities
6. **Linear Kinetics for Analyzing Human Movement**
   - Newton Laws of motion and application in sports
   - Law of universal gravitation
   - Impulse & Momentum,
   - Conservation of momentum,
   - Impact
7. **Angular Kinematics of Human Movement**
   - Instant Center of Rotation
   - Angular Distances & Displacement
   - Angular Speed & Velocity
   - Angular Acceleration
   - Tools for Measuring Body Angles
   - Relationships between linear and angular motion
8. **Angular Kinetics of Human Movement**
   - Moment of Inertia
   - Conservation of Angular Momentum
   - Angular Impulse & Momentum
   - Centripetal & centrifugal force
9. **Equilibrium and Human Movement**
   - Define Equilibrium
   - Forces and toque in Equilibrium
   - Define Center of Gravity & locating the Human Body Center of Gravity
   - Define lever and its Lever classes
   - Lever application in sports
10. **Fluid Mechanism and Human Movement**
    - Nature of Fluids & Fluid Properties
    - Bouyance & Characteristics of a Buoyant Force
    - Floatation of human body
    - Define Drag,
    - Fluid resistance (Form of Drag, Wave Drag & Skin Fraction)
    - Lift Force Propulsion in Lift Theory & Propulsion in Fluid Medium
    - Magnus force and Magnus effect
11. **Mechanical Analysis of competitive Sports Techniques**
    - Badminton
    - Basket Ball
    - Football
    - Hockey
    - Swimming

12. **Mechanical Analysis of Track & Field Events**
    - Running.
    - Jumping.
    - Throwing. Events

READINGS

1. McGinnis. P. M. (2013). *Biomechanics of sport and exercise*. Human Kinetics.
2. Susan J. Hall. Ph.d (2011) *Basic Bio Mechanics, , sixth Edition edn.*, : McGraw-Hill Higher Education.
3. Robert P. Pangrazi, Aaron Beighle (2016) *Dynamic Physical Education for Elementary School Children* . 18th Edition edn.. : Pearson.
4. Duane Knudson (2007*) Fundamentals of Biomechanics, 2nd Edition edn.*, : Springer (Springer Nature).
5. Roger Bartlett (2014. Jan 15) *Introduction to Sports Biomechanics*: Analysing Human Movement Patterns. 3rd edition edn., : E & FN SPON.
6. Prof. Anthony J. Blazevich (2017. Mar 9) *Sports Biomechanics*, 3rd edition edn.. : bloomsbury.
7. James Watkins (2014. Mar 26) Fundamental Biomechanics of Sport and Exercise. 1 edition edn..: Routledge.
8. Carl J. Payton (Editor). Adrian Burden (Editor) (2017. Dec 19) Biomechanical Evaluation of Movement in Sport and Exercise (BASES Sport and Exercise Science)

RESEARCH PROJECT /PRACTICALS/LABS/ASSIGNMENTS

Will be submitted during the Semester

ASSESSMENT CRITERIA

Mid Term:		30	
Sectional:			
Assignment	Attendance	Presentation	Participation
05	05	05	05
Project:	0		
Final Exam:	50		
Total	100		

Last Update: September 2020

PEDU-~~6119~~ 6323 Sports Nutrition 3 (3+0)

This course provides a scientific background of applied nutrition and sports performance. Sports Nutrition is the study of nutrition and exercise for the promotion of health, fitness and prevention from diseases. Proper nutrition is the key to optimizing health and athletic performance. This course presents guidelines for the diet needed to be ready for athletic practice and competition, and how to refuel afterwards. The course contains the principles of nutrition and reviews the role and functions of fats, proteins, carbohydrates, vitamins, minerals, body fluid metabolism, digestion and weight management. Students will be able to learn about energy expenditure during exercise, performance enhancement recovery, and the essential elements for growth, maintenance and repair of the body's tissues. Individuals gain an understanding of exercise physiology and learn how to create a nutritional fitness plan for each sport as well as weight loss supplements and performance-enhancing drugs are also a point of emphasis. They can learn to counsel individuals and to make diet recommendations. This course explores the influence of food on each of the body's organs and impact on hormone imbalances and weight management. Furthermore, learners gain the knowledge of applying dietary changes and supplementation in common medical conditions to improve the effectiveness of conventional treatments.

Contents

1. Introduction to sports nutrition
2. Energy and metabolism
3. Energy and muscular activities
4. Carbohydrates and sports performance
5. Science of carbohydrate loading
6. Fats and sports performance
7. Proteins and sports performance
8. Vitamins
9. Minerals
10. Water and Electrolytes
11. Eating Disorders
12. Weight Management
13. Body composition
14. Practical application of nutritional plan for strength/power athletes
15. Practical application of nutritional plan for endurance /ultra-endurance athletes

Recommended Texts

1. Bean, A. (2017). *The complete guide to sports nutrition* (8th ed.). London: Bloomsbury Sport, an imprint of Bloomsbury Publishing Plc.
2. Fink, H. H., &Mikesky, A. E. (2020). *Practical applications in sports nutrition* (5th ed.). Burlington, MA. New Jersey: Jones & Bartlett Learning.

Suggested Readings

1. Souza, P. D. (2016). *Sports nutrition* (1st ed.). New York: SyrawoodPublishing House.
2. Baechle, T. R. (2016). *Essentials of strength training and conditioning* (4th ed.). Champaign, IL: Human Kinetics.
3. Spano, M. A., Kruskall, L. J., & Thomas, D. T. (2018). *Nutrition for sport, exercise, and health* (3rd ed.). Champaign (Illinois): Human Kinetics.
4. Jeukendrup, A. E., & Gleeson, M. (2019). *Sport nutrition* (4th ed.). Champaign, IL: Human Kinetics.

Last Update: September 2021

COURSE OUTLINE

Course Title: Sports Nutrition
Course Code: PEDU-~~6119~~ 6323
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

Exercise and Sports nutrition links food with physical performance. It refers to the nutritional needs of all active people, covering the areas of exercise for health and performance in sport. It focuses on nutrition providing the fuel for exercise, recovery, performance and the essential elements for growth, maintenance and repair of the body's tissues.

INTENDED LEARNING OUTCOMES

Upon successful completion of this course, you should be able to:

1. Relate key theories of nutrition to typical factors of health, exercise and sport.
2. Relate roles of nutrition in physical performance, recovery and adaptations to exercise.
3. Undertake a basic dietary assessment, and relate to the needs of the individual.
4. Investigate issues in sports nutrition.
5. Provide sound nutritional advice to athletes and healthy individuals, and know when to refer to a dietician.

COURSE CONTENTS

1. **Introduction**
   - Introduction of nutritional terms including nutrition, nutrient, diet, digestion, absorption, excretion, metabolism and energy etc.
   - Importance and function of nutrition in exercise and sports
2. **Energy and metabolism**
   - Introduction to energy
   - Measurements of energy contents of food
   - Measurement of energy expenditure (B.M.R and B.M.I)
   - How is energy released from food and stored in the body
3. **Energy and muscular activities**
   - Energy systems
   - How energy consumed during exercise

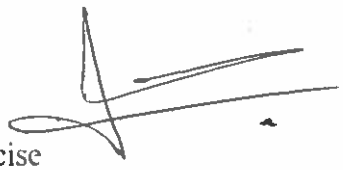
   A Low intensity
   B Sub maximal intensity
   C Maximal intensity
4. **Carbohydrates and sports performance**
   - what are Carbohydrates
   - Carbohydrates Classified
     Functions of Carbohydrates in the body
   - Carbohydrates utilized during exercise
5. **Science of carbohydrate loading**
   - What is carbohydrate loading
   - Does carbohydrate loading improve performance
   - Who should carbohydrate load
   - Methodology of carbohydrate loading
   - Trends among modern-day athletes carbohydrate loading

- High carbohydrate diet plan
- Carbohydrate loading and females
- Common mistakes in carbohydrate loading

6. **Fats and sports performance**
   - What are Fats
   - How are Fats Classified and functions in human body
   - What is Cholesterol
   - How can fats affect daily training and competitive performance
7. **Proteins and sports performance**
   - What are Proteins
   - How are Proteins Classified
   - What functions do Proteins serve in the body
   - How are Proteins utilized during exercise
8. **Vitamins**
   - What are Vitamins and classification
   - Which vitamins or compounds have antioxidant properties
9. **Minerals**
   - What are Minerals and classification
   - Minerals effects on health and performance
10. **Water and Electrolytes**

    Water, total body water, functions of water, water balance, water intake, water elimination and R.D.A of water.
    - Temperature regulation during exercise.
    - Rate of gastric emptying
    - Dehydration
    - Adequate hydration before during and after exercise
11. **Eating Disorders**

    concepts of
    normal eating, and eating disorders
    - Eating disorders of depressed athlete
    - Caffeine's effects on metabolism
    - Alcohols effects on metabolism
12. **Weight Management**
    - Overweight or obesity and causes of obesity
    - What are the health risks associated with obesity
    - Role of diet in the treatment of obesity
    - Modern trends in weight gain and loss
    - Principles of weight management
    - Exercise and Weight Control
13. **Body composition**
    - What is body composition
    - What are methods of measuring body composition and Obesity
    - Body composition relates to performance
14. **Practical application of diet plan for strength/power athletes**
    - What is different about strength/power athletes
    - What energy systems are utilized during strength/power exercise



- Meal-planning plan for strength/power athletes

15. **practical application of nutrition for endurance /ultra-endurance athletes**
    - What is different about endurance athletes
    - What energy systems are utilized during endurance exercise
    - Why are fluids critical to endurance performance
    - Meal-planning plan for endurance /ultra-endurance athletes

READINGS

1. Fink, H. H., & Mikesky, A. E. (2017). *Practical applications in sports nutrition*. Jones & Bartlett Learning.
2. Elias, S. S. M., Saad, H. A., Taib, M. N. M., & Jamil, Z. (2018). *Effects of sports nutrition education intervention on sports nutrition knowledge, attitude and practice, and dietary intake of Malaysian team sports athletes*. Malaysian Journal of Nutrition, 24(1).
3. Jäger, R., Kerksick, C. M., Campbell, B. I., Cribb, P. J., Wells, S. D., Skwiat, T. M., ... & Smith-Ryan, A. E. (2017). *International society of sports nutrition position stand: protein and exercise*. *Journal of the International Society of Sports Nutrition*, 14(1), 1-25.
4. Clark, N. (2019). Nancy Clark's sports nutrition guidebook). *International society of sports nutrition position stand: protein and exercise. Journal of the International Society of Sports Nutrition*
5. Dunford, M., & Doyle, J. A. (2011). *Nutrition for sport and exercise*. Cengage Learning.

RESEARCH PROJECT /PRACTICALS/LABS/ASSIGNMENTS

Will be submitted during the Semester

ASSESSMENT CRITERIA

Mid Term:		30	
Sectional:			
Assignment	Attendance	Presentation	Participation
05	05	05	05
Project:	0		
Final Exam:	50		
Total	100		

Last Update: September 2021

6324

PEDU ~~6128~~ Sports Injuries & Rehabilitations **3 (3+0)**

This course is a graduate level course of M.Sc. Physical Education. The subject covers a broad range of topics building knowledge and skills to understand injuries, injuries classification, identification,CPR, First Aid emergency and acute injuries management. Prevention and implementation of suitable exercise based rehabilitation programs designed by health care professionals for players and common people to regain their peak performance potential either independently or by assisting healthcare professionals. It helps students to manage the injuries through appropriate exercises and various therapies. The subject will enable students to analyse the posture and prescribe exercises to correct various posture deformities. Students will also be able to classify special population. In-depth study of this subject will help students, coaches, and researchers to understand how human body reacts to physical or recreational activity, exercises and sports, they can help participants, whether at an elite level or within the general community, to regain their peak potential after injury occurrence. Research in sports injuries and rehabilitation is consistently focused on improving athletic performance and reducing injury risk. Therefore, the course focuses on building the knowledge and skills to prevent and implement rehabilitation programs that return athletes to optimum fitness level. This course offers an exciting array of placement opportunities at professional sports teams, professional sports organizations or at a human movement and performance lab.

1. Introduction to Sports Injuries
2. Classification
3. Methods of Injuries Prevention
4. Warm up, Cool down & First Aid
5. Management of Injuries
6. Exercise, Yoga, Hydro, Steam, Cryo and Physiotherapy
7. Posture Analysis
8. Adapted Physical Activities
9. Sports Massage

Recommended Texts

1. Joyce, D., &Lewindon, D. (2016). *Sports injury prevention and rehabilitation: integrating medicine and science for performance solutions.* London, UK: Routledge.
2. Brukner, P., & Khan, K. (2019). *Brukner& Khans Clinical sports medicine*(5th ed.). Sydney, Australia: McGraw Hill Education.

Suggested Readings

1. McGillicuddy, M. (2011). *Massage for sport performance*. Champaign, IL: Human Kinetics.
2. Knopf, K. G. (2015). *Injury rehab with resistance bands: complete anatomical information and rehabilitation routines for back, neck, shoulders, elbows, hips, knees, ankles and more.* Berkeley, CA: Ulysses Press.
3. Houglum, P. A. (2016). *Therapeutic exercise for musculoskeletal injuries*(4th ed.). Champaign, IL: Human Kinetics.
4. Winnick, J. P., &Porretta, D. L. (2017). *Adapted physical education and sport* (6th ed.). Champaign, IL: Human Kinetics.
5. Walker, B. (2018*). The anatomy of sports injuries: your illustrated guide to prevention, diagnosis, and treatment* (2nd ed.). Chichester, England: Lotus Pub.

Last Update: September 2020

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Sports Injuries & Rehabilitations
Course Code: PEDU-~~6128~~ 6324
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course is open to all students interested in the prevention, care and treatment sports injuries. The subject matter covers the responsibilities of professional development of the athletic trainer, emergency, procedures, mechanisms, characteristics and evaluation of sports injuries as well as their acute care. The course will also include the principles and strategies of prevention and management of injuries in PE and youth sport

INTENDED LEARNING OUTCOMES

Upon the completion of the course, student teachers will: • Acquire basic knowledge to understa various aspects of youth sports injuries • Acquire knowledge of risks and mechanisms of injuries in P and school based sports in adolescents • Acquire knowledge on common youth sports injuries i adolescents • Identify types of injuries, their presentation and carry out immediate on-site primary management in adolescents • Be able to implement preventive measures to reduce the occurrence o injuries in PE and youth sport

COURSE CONTENTS

1. **Introduction to Sports Injuries**
   a. **Classification:**
      - Cramps
      - Ruptures
      - Fractures
      - Sprains and Strains
      - Achilles tendon injuries.
      - Soreness
      - Dislocations
      - Hamstring injuries
2. **Methods of Injuries Prevention:**
      - Warm Up & Cool down
      - Skill Performance
      - Play
      - Equipment
      - First Aid
3. **Management of Injuries through:**
      - Exercise
      - Yoga
      - Hydro Therapy/Steam Therapy/CryoTherapy
      - Physiotherapy
4. **Posture Analysis:**
      - Posture (Descriptive and Anatomical definitions)
      - General Causes of bad Posture
      - General Postural Deformities
        - i Kyphosis
        - ii Flat foot
        - iii Lordosis
        - iv Knocked-Knees
        - v Scoliosis

- Remedial Exercise

5. **Adapted Physical Activities**
   - i. Definition
   - ii. Nature, Scope and significance of adapted Physical Education activity
   - iii. Physical activities for convalescents
   - iv. Rehabilitation Program for Special persons
6. **Sports Massage**
   - Definition
   - Importance
   - Types of Sports Massage
     - i. Effleurage ii. Knead
     - iii. Deep Tissue Massage iv. Petrissage
     - v. Tapotement vi. Vibration

READING

1. Brukner, P., & Khan, K. (2019). *Brukner& Khans Clinical sports medicine*. Sydney, NSW: McGraw-Hill Education (Australia).
2. Joyce, D., &Lewindon, D. (2016). *Sports injury prevention and rehabilitation*: integrating medicine and science for performance solutions. London: (Routledge).
3. Knopf, K. G., & Knopf, C. (2015). *Injury rehab with resistance bands: complete anatomical information and rehabilition routines for back, neck, shoulders, elbows, hips, knees, ankles and more*. *Berkeley*, CA: Ulysses Press.
4. Walker, B., Williams, A., & Lambert, M. (2018). *The anatomy of sports injuries: your illustrate guide to prevention, diagnosis, and treatment*. Chichester, England: Lotus Pub.
5. Winnick, J. P., &Porretta, D. L. (2017). *Adapted physical education and sport*. Champaign, IL : Human Kinetics.
6. Hougram, P. A. (2010). Therapeutic exercise for musculoskeletal injuries. Champaign, IL : Human Kinetics.
7. McGlynn, G. (2011). *Massage for sport performance*. Champaign, IL : Human Kinetics.

PEDU-6136 Research/ Project/Thesis/Internship **3 (3+0)**

This course provides students with an introduction to the research topic, research design and methodologies in the fields of sport science, physical education and recreation. Students will learn to read and interpret existing research articles, select appropriate methodologies for a researchable question, and conduct a literature review on a topic of interest. This course will also be an introduction to preparing a research proposal including selecting research methods appropriate to meet the desired outcomes of a study. Researchers within the Physical Education Research Forum aim to engage in research that enhances our understanding of what effective teaching and learning is so that current policy, practice and professional development can be improved challenged and even transformed. This course requires the student to devise, conduct, and present a project examining an applied sports science issue. The student will be expected to work mainly independently in order to gain practical experience of topic selection, research design, data collection and data analysis. The project is submitted in APA format. Students will be encouraged to work in areas of different sports, coaching techniques and injuries prevention. During the 3rd semester the student will submit a research proposal and ethics application. The final project will be submitted towards the end of the 4th semester in APA format.

Contents

1. Introduction of Research Proposal / Thesis/ Project
2. Formulation and selecting of Research Problems
3. Selection of a topic
4. Submission of research topic
5. Changes/Corrections
6. Presentation
7. How to write an Introduction
8. Literature Review
9. Research Proposal / Synopsis Viva/ Defence

Recommended Texts

1. Grattan, C., & Jones, I. (2010). *Research methods for sports studies* (2nd ed.).New York:Routledge.
2. Thomas, J. (2015). *Research methods in physical activity.* Champaign, IL: Human Kinetics.
3. Casey, A. (2018). *Conducting practitioner research in physical education and youth sport: reflecting on practice.* Abingdon, Oxon: Routledge.

Suggested Readings

1. Veal, A. J. (2014). *Research methods in sport studies and sport management: A practical guide. London:* Routledge, Taylor & Francis Group.
2. Price, M. (2015). *Lab reports and projects in sport and exercise science: A guide for students.* London: Routledge.
3. Bell, J., & Waters, S. (2018). *Doing your research project: A guide for first time researchers.* London: McGraw-Hill Education.
4. Smith, M. F. (2018). *Research Methods in Sport.* London: Sage Publications.

Last Update: September 2020

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Research/ Project/Thesis/Internship
Course Code: PEDU-~~6136~~ 6325
Credit Hours: 03

DESCRIPTION AND OBJECTIVES

This course has a vocational focus. It assists students to develop skills in research and scientific communication in the relevant discipline. Topics addressed include design and performance of experiments or action research, analysis and presentation of research data, and preparation of oral and written scientific reports that use these skills. The aim of the course is to prepare students to apply research focused on one of the following: sports psychology, sports medicine, sports management, sports management etc.

INTENDED LEARNING OUTCOMES

1. Learning activities may include any or all of the following:
2. Negotiating a research topic in consultation with a research supervisor
3. Preparing a project outline that includes project aims, objectives, an indicative summary of methodology, and potential outcomes
4. Undertaking a literature review related to the topic, including preparing a reference list
5. Planning for, and performing project work under the guidance of a supervisor
6. Participating in supervisory meetings and attending departmental seminars
7. Writing and editing a research project in consultation with a supervisor
8. Preparing and presenting a seminar on the research project and Conduct an independent research project under supervision

COURSE CONTENTS

1. Introduction of Research Proposal / Thesis/ Project
2. Formulation and selecting of Research Problems
3. Selection of a topic
4. Submission of research topic
5. Changes/Corrections
6. Presentation
7. How to write an Introduction
8. Literature Review
9. Research Proposal / Synopsis Viva/ Defense

READINGS

1. Dr. SMT. K.G. JADHAV. *Research Process in Physical Education & Sports.*
2. Casey, A. (2018). *Conducting practitioner research in physical education and youth sport: reflecting on practice*. Abingdon, Oxon: Routledge.
3. Thomas, J. (2015). *Research methods in physical activity. Champaign*, IL: Human Kinetics.
4. Smith, M. F. (2018). *Research Methods in Sport. London*: Sage Publications.
1. Veal, A. J. (2014). *Research methods in sport studies and sport management: a practical guide. London*: Routledge, Taylor & Francis Group.
2. Price, M. (2015). *Lab reports and projects in sport and exercise science: a guide for students. London*: Routledge.
3. Bell, J., & Waters, S. (2018). *Doing your research project: a guide for first time researchers. London*: McGraw-Hill Education.

Last Update: September 202

6326

PEDU-~~5110~~ Practical Athletics (Throwing Events) **2(0+2)**

The two primary forms are throwing for distance and throwing at a given target or range. The four most prominent throwing for distance sports are in track and field: shot put, discus, javelin, and the hammer throw. This course will Develop and share among members and others education, information, and leadership skills. Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities. The training for this course is event group focused. The main focus of this course is annual planning periodization and is introduction to international competition. This course aims to development of the student biomechanics physiology psychology nutrition planning and strength concepts. Better understand of a course the participant will for the target age group this course have a greater knowledge of appropriate drills, skills, games and activities for each event. Identify some of the more common technical faults associated with each event this course have a basic understanding of a simple Coaching session

Contents:

1. Introduction to Throwing Events
2. Javelin throw
3. Preparing for Acceleration
4. Crossover
5. Begin the Throw, Complete the Throw
6. Hammer throw
7. Releasing Angle and Velocity
8. Discus throw
9. Drills used to teach the grip and release ,Wind up, Starting the Throw
10. Body position, Throwing from the power position, Drills used to teach throwing from the power position
11. Beginning the Turn to the Center of the Ring, Completing the Turn to the Center of the Ring, Turn to the Power Position, Power Position, Release angle
12. Shot-put
13. Drills used to teach the grip and release ,Wind up, Starting the Throw
14. Body position, Throwing from the power position, Drills used to teach throwing from the power position

Recommended Books

1. McGinnis, P. M. (2020). *Biomechanics of sport and exercise* (4th ed.). Champaign, IL: Human Kinetics.
2. Fink, H. H., &Mikesky, A. E. (2020). *Practical applications in sports nutrition* (5th ed.). Burlington, MA. New Jersey: Jones & Bartlett Learning.

Suggested Readings

1. Bartlett, R., &Bussey, M. (2013). *Sports biomechanics: Reducing injury risk and improving sports performance*. (2nd ed.). United States. Routledge.
2. Cartwright, L. A., & Peer, K. (2018). *Fundamentals of Athletic Training* (4th ed.). Champaign, IL: Human Kinetics

COURSE OUTLINE

Course Title: Practical Athletics (Throwing Events)
Course Code: PEDU-~~5110~~ 6326
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

The two primary forms are throwing for distance and throwing at a given target or range. The four most prominent throwing for distance sports are in track and field: shot put, discus, javelin, and the hammer throw.

This course will Develop and share among members and others education, information, and leadership skills. Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities.

INTENDED LEARNING OUTCOMES

1. Improve level of physical fitness.
2. Coaching /Analyze and critique skill performances of other class members.
3. Compose and perform their own routines.
4. Perform beginning level skills on all events.
5. Demonstrate knowledge of the principles of particular event and physical fitness

COURSE CONTENTS

1. Introduction to Throwing Events,(Shot put, Discus, Javelin, Hammer throw) Warm up & Cool Down Methods & Techniques, Training methodology for fitness and Sports related components
2. Javelin throw

Grip and Holding

3. Preparing for Acceleration
4. Crossover
5. Begin the Throw, Complete the Throw
6. *Hammer throw*

The grip & Stance, Swings

7. Wind-up

Entry Phase, Heel-Toe Turn Footwork
Drive Phase I, II
Power Position

8. Releasing Angle and Velocity

Delivery
Follow Through

9. Discus throw,

Holding, Griping and Stance the discus throw

10. Drills used to teach the grip and release ,Wind up, Starting the Throw
11. Body position, Throwing from the power position, Drills used to teach throwing from the power position
12. Beginning the Turn to the Center of the Ring, Completing the Turn to the Center of the Ring, Turn to the Power Position, Power Position, Release angle
13. Shot-put

Holding, Griping and Stance the shot-put

14. Drills used to teach the grip and release ,Wind up, Starting the Throw
15. Body position, Throwing from the power position, Drills used to teach throwing from the power position
16. Beginning the Turn to the Center of the Ring, Completing the Turn to the Center of the Ring, Turn to the Power Position, Power Position, Release angle, & follow throw

READINGS

1. USA Track & Field Coaching Essentials Nov, 2014 by USA Track & Field
2. Athletics 2018: The International Track and Field Annual, May, 2018 by Peter Matthews

6327

PEDU-~~511~~ Practical Games (Table Tennis & Badminton) **2 (0+2)**

The student will know the basics of Badminton and table tennis games. To acquire the basic knowledge need to analyze skills required with perspective of teaching, coaching, healthy life style, Physical fitness. This course will Develop and share among members and others education, information, and leadership skills. Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities. The course aims to provide students with opportunities to acquire the knowledge, understanding and experience necessary to develop an appreciation of, and play, the sport of badminton and table tennis. Students will be taught the essential skills necessary to play the sport. This unit plan is an outline of our four lesson badminton and table tennis unit. Make a forehand shot, aiming for one of the hoops on the ground, the retriever will gather the birdies back to the feeder. Teacher demo first, and then students can follow along.

Contents

1. Introduction, Ready Position
2. The grip, Racket angles
3. Basic ball control, Basic strokes
4. Backhand push, Forehand drive
5. Backhand drive, Forehand push
6. Return of service
7. Footwork Patterns, Service rules
8. Duties of officials & organizing committees
9. Basic Gripping Technique. Learn how to hold your racket using the forehand and backhand grip
10. Basic Footwork. Good footwork allows good movement around the court
11. Strokes are simply your swing action to hit the shuttle Badminton Serve
12. Basic Stance, Defensive High Clear/lob
13. Drop Shots, Smashing
14. Basic Fouls of Badminton
15. Basic Trainings of Badmintons
16. Duties of officials & organizing committees

Recommended Texts

1. Wagner, H., Pfusterschmied, J., Von Duvillard, S. P., & Müller, E. (2012). *Skill-dependent proximal-to-distal sequence in team-handball throwing. Journal of Sports Sciences*, 30(1), 21-29
2. Azar, F. M. (2019). *Illustrated tips and tricks in sports medicine surgery* (1st ed.). Philadelphia: Wolters Kluwer.

Suggested Readings

1. Joyce, D. (2014). *High-performance training for sports* (2nd ed.). Champaign, IL: Human Kinetics.
2. Prentice, W. E. (2017). *Principles of athletic training: A competency-based approach* (16th ed.). Vancouver, B.C.: Langara College.

Last Update: September 2020

COURSE OUTLINE

Course Title: Practical Games (Table Tennis & Badminton)
Course Code: PEDU-~~5111~~ 6327
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

The student will know the basics of Badminton and table tennis games. To acquire the basic knowledge need to analyze skills required with perspective of teaching, coaching, healthy life style, Physical fitness. This course will Develop and share among members and others education, information, and leadership skills. Encourage members to promote the active participation by all youth in fun and healthy physical activities according to their interests and abilities.

INTENDED LEARNING OUTCOMES

1. Improve level of physical fitness.
2. Coaching /Analyze and critique skill performances of other class members.
3. Compose and perform their routines.
4. Perform beginning level skills on all events.
5. Demonstrate knowledge of the principles of particular event and physical fitness

COURSE CONTENTS

1. Introduction. Ready Position,
2. The grip. Racket angles
3. Basic ball control. Basic strokes
4. Backhand push. Forehand drive
5. Backhand drive. Forehand push
6. Return of service
7. Footwork Patterns, Service rules
8. Duties of officials & organizing committees
9. Basic Gripping Technique. Learn how to hold your racket using the forehand and backhand grip
10. Basic Footwork. Good footwork allows good movement around the court
11. Strokes are simply your swing action to hit the shuttle Badminton Serve
12. Basic Stance. Defensive High Clear/lob
13. Drop Shots. Smashing
14. Basic Fouls of Badminton
15. Basic Trainings of Badmintons
16. Duties of officials & organizing committees

READINGS

1. ITTF rules available on ww.ittf.com/handbook/
2. BWF rules available on http://bwfbadminton.com

Last Update: September 202

PEDU-6137 Practical Hiking / Hill Trekking 2 (0+2)

This course is designed to give the students a better understanding of the fundamental knowledge needed to enjoy hiking safely. Students will experience a lifelong activity that promotes a healthy and active lifestyle. The assumption that lifestyles formed early in life track into adulthood has been used to justify the targeting of health promotion programmes towards children and adolescents. The aim of the current study was to use data from the Northern Ireland Young Hearts Project to ascertain the extent of tracking, between adolescence and young adulthood, of physical activity, aerobic fitness, selected anthropometric variables, and diet. Tracking has been defined as the maintenance of relative position in rank of behaviour over time, such that subjects who rank highly for unfavourable risk profiles at a young age are likely to maintain their ranks through into adulthood. Although different indicators of physical activity and different methods of tracking of inactivity is less often studied. Your resistance training: updated position statement paper from the national strength and conditioning association.

Contents

1. Introduction of Hiking & Hill Tracking
2. Fitness training for hiking
3. Personal awareness and safety when hiking (communication, emergency plans)
4. Hiking techniques (posture, overcoming obstacles, use of trekking poles)
5. Equipment and proper use
6. Apply safe hiking techniques during hiking activities
7. Maps and Navigations
8. Hiking trip planning (route selection, proper gear, clothing, footwear, first aid, food, water)
9. Alter hiking choices for special weather and physical conditions
10. Self-reflection and communication about hiking activities, routes, personal preparation, group dynamics, safety, and fitness for hiking
11. Tying Knots Skills Charts
12. Environmental awareness
13. Introduction of wildlife animals and Tracks
14. Remedies for Insect Bites and Rashes
15. Basic injury prevention and first aid (blister prevention and management)

Recommended Texts

1. Smith, S. D. (2017). *White Mountain guide: AMC's comprehensive guide to hiking trails in the White Mountain National Forest* (30th ed.). Boston: Appalachian Mountain Club Books.
2. KJ, P. (2019). *Base camp Denver: 101 hikes in Colorado's Front Range* (3rd ed.). Las Vegas, NV: Imbrifex Books.

Suggested Readings

1. Skurka, A. (2017). *The ultimate hiker's gear guide: Tools & techniques to hit the trail* (2nd ed.). Washington D.C.: National Geographic
2. Konin, J. G., & Ray, R. (2019). *Management strategies in athletic training* (5th ed.). Champaign, IL: Human Kinetics.

DEPARTMENT OF SPORTS SCIENCES
UNIVERSITY OF SARGODHA

COURSE OUTLINE

Course Title: Practical Hiking / Hill Trekking
Course Code: PEDU ~~6137~~ 6328
Credit Hours: 02

DESCRIPTION AND OBJECTIVES

This course is designed to give the students a better understanding of the fundamental knowledge needed to enjoy hiking safely. Students will experience a lifelong activity that promotes a healthy and active lifestyle. Specific instructional objectives include the following:

16. To introduce students to the fun and exciting world of Hiking and Hill Trekking.
17. To Introduces hiking concepts and skills necessary to hike safely as a regular fitness activity and fitness for hiking, route planning, safety, and environmental considerations.

INTENDED LEARNING OUTCOMES

Specific learning outcomes for students include the following:

- Demonstrate hiking and Hill Trekking skills (proper equipment, conditioning, proper clothing, how to hike).
- Demonstrate proper hiking and backpacking safety.
- Be familiar with the essential skills needed for Hill Trekking
- Be able to know the different sights and plants of northern areas of Pakistan.

Upon completion of the course students should be able to:

- Improve overall physical conditioning through participation in hiking activities.
- Apply basic hiking skills and concepts when planning safe and enjoyable hikes.
- Utilize environmentally conscious practices when participating in hiking activities.
- Recognize how to use hiking in a lifelong fitness, health, and wellness program.

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10. Self-reflection and communication about hiking activities, routes, personal preparation, group dynamics, safety, and fitness for hiking
11. Tying Knots Skills Charts
12. Environmental awareness ("Leave no trace", weather, trail conditions)
13. Introduction of wildlife animals and Tracks
14. Remedies for Insect Bites and Rashes
15. Basic injury prevention and first aid (blister prevention and management