



NSNIS PATIALA

SYLLABUS FOR DIPLOMA IN SPORTS COACHING

DISCIPLINE: ARCHERY
COURSE CODE: AR - 01



Total Credits: 28	Semester - I	L	T	P/FW	SW	TOTAL CREDIT UNITS
		80	0	315	20	14
		(L-Lecture, T- Tutorial, P-Practical, SW-Self Work, FW-Field Work)				
	Semester - II	L	Assignment	P/FW	SW	TOTAL CREDIT UNITS
		80	3	315	20	14
		(L-Lecture, T- Tutorial, P-Practical, SW-Self Work, FW-Field Work)				

COURSE OBJECTIVES:

- To have knowledge and develop the concept of Archery coaching skills.
- To enable to perform the demonstration and explanation of techniques to athletes and make them practice these techniques.
- To educate about the technical rules and its exploitation to develop the Archers techno tactical abilities.
- To educate about the Material Rules of Archery so that coaches will be aware of equipment and its maintenance.
- To explain about the Organizational Rules to develop their skills to organize domestic and international events.
- To explain the requisite of an Archery to identify the right talent for Archery.
- To enable the coaches to design the training program for their athletes as per their requirements.

- To explain the performance factors for archery: Motor Qualities, Techniques and Tactics.
- To ensure they can do the performance assessment by using qualitative and Quantitative methods for development of Archery.

LEARNING OUTCOMES:

- Student will be able to understand the basic concept of coaching and coaching philosophy to be a successful coach.
- It will enable the students to learn the proper basic and advance Archery techniques and mechanics behind each technique.
- This will enable them to learn the various skill and Technique of archery.
- It will develop the skills to design the training program to develop motor qualities, techniques and tactics.
- They will remember the archery terminology used world wide

SKILLS DEVELOPED:

- Leadership skill.
- Critical thinking.
- Decision making.
- Effective communication.
- Problem solving
- Interpersonal relationship.
- Team work.
- Work ethics.

DETAILED SYLLABUS - SEMESTER I

THEORY I

Total Credit: 4

Unit No.	Description/Topics Covered	Teaching Method	No. of Hours (period)	Online Class room	Faculty
1.	Development and Organization	L	4	Both	
	Development of Archery Historical Origins, Transition to Sport, Organization of Modern Archery, International Governing Body, National Governing Bodies, Competitive Formats.				
	World Championships, Continental Championships, Dates, Allocation of Championships, Management Structures, Invitations, Entries, Accreditation, Championship Documents, Director of Shooting, Tournament Judge Commission, Roles and Responsibilities of Judges, Jury of Appeal, Scorers, Draw for Shooting Positions, Repositioning on Targets, Equipment Inspection, Championship Tournaments, Program and Protocol, Field of Play Competitions Disciplines, Classes, Divisions, Categories, Rounds, Events and Tournaments, World Archery Events, Official Recognition of Tournaments Titles and Records World Championship Titles, World Records – Definition, World Records, World Record Tournaments,				

	Confirmation of World Records, Olympic Records, Confirmation of Olympic Records				
2	Warm up, Strength & Conditioning	L	10		
	<p>1. Warm-Up & Specific exercises Reasons for warm-up exercises, Oriented Warm-up with rubber band, General exercises outside the shooting range, Exercises right before shooting, Simple exercises for the shoulder girdle, General (isotonic/isometric) & Specific exercises, Shooting warm-up</p> <p>2. Introduction to Strength and Conditioning Overview of strength and conditioning in sports coaching, Role of strength and conditioning in archery, Basic anatomy and physiology related to archery performance</p> <p>3. Strength Training Basics, Principles of strength training, Types of strength (maximal strength, strength endurance, explosive strength), Periodization in strength training for archery</p> <p>4. Conditioning for Archery, Cardiovascular conditioning and its importance, Specific endurance training for archers, Integration of conditioning with technical training</p> <p>5. Flexibility and Mobility, Importance of flexibility and mobility in archery, Stretching</p>				

	<p>techniques and exercises, Mobility drills and their application in archery</p> <p>6. Injury Prevention and Rehabilitation, Common injuries in archery and their causes, Rehabilitation exercises, Rehabilitation strategies for archery injuries</p> <p>7. Practical Application and Case Studies, Designing strength and conditioning programs for archery athletes, Case studies on successful strength and conditioning interventions, Practical sessions on program implementation and adjustment</p> <p>8. Assessment and Evaluation, Evaluating athlete progress and performance, Assessing the effectiveness of strength and conditioning programs.</p>				
3	<p>Equipment</p> <p>Types of Bow, Anatomy of A Bow and Arrow, Functions of Recurve & Compound Bow Accessories, Assembling the Accessories. efficiency. matching Stringing the Bow .Types of Compound Bow press. Advantages & Disadvantages of different methods. Eye dominance Test Principle of Using Left-Hand & Right-Hand Bow Method of Aiming & Procedur.</p>	L	12		

4	Glossary of Archery Terms / Terminology	L	10		
	Related with Target Archery Equipment (Recurve, Compound) Skill, Faults & Technical Field Competition Rules & Judging				
5	The Disabled Novice Archer	L	14		
	Para Archery & its classification, Types of Disability, Archers with Limited use of the Arms, Standing Archers with Balance Problems, Archers with Visual Impairment, Archers with Mental Disabilities, Archers Using Wheelchairs, Archers Shooting from and Ordinary Chair or Stool, Archers with Communication Difficulties, Archers with a Combination of Difficulties. Other Medical Issues & Conclusions.				
	Introduction to NTS (formerly known by the B.E.S.T) Fundamental Steps /Classic form				
	1. STANCE 2. NOCK 3. HOOK AND GRIP 4. SET 5. SETUP 6. DRAW TO LOAD 7. ANCHOR 8. TRANSFER TO HOLD 9. EXPAND/AIM 10. RELEASE/FOLLOW THROUGH 11. FEEDBACK Rhythm and shooting time.				

	<p>Equipment and body alignment.</p> <ul style="list-style-type: none"> ❖ Rhythm <p>From Basic Form ...</p> <p>To Efficient Shooting</p> <ul style="list-style-type: none"> ❖ Biomechanically Efficient Shooting Technique <ul style="list-style-type: none"> ❖ Arrow Shot 				
6	Shooting Control and Safety	L	12		
	Group safety, Individual safety, Equipment safety, Field Safety, Competition Safety, Range etiquette Field of Play setup – Target Rounds				
	Order of Shooting and Timing Control				
	Shooting Time and Time Limits, Visual and acoustic time control. The WHISTLE Commands.				
	The steps to determine proper Archery equipment selection.				
	<p>Archery equipment selection</p> <p>.Determine proper bow size</p> <p>Determine draw length Determine proper draw weight Selection</p> <p>Procedure of Equipment's and accessories, for Novice Intermediate .and elite level</p> <p>Different types of archery equipment</p>				
7	Target Faces and Equipment's	L	12		
	<p>1-10 Scoring Zones Target Face</p> <p>Multiple Scoring Zones Target Face</p> <p>Outdoor target butt set-up Scoring, Consequences of Breaking Rules,.</p>				

	Methods and technique of Teaching. Training and Coaching. Class management and control in Archery.				
	First Lesson in Archery Setting up the archery range, Archery Safety Briefing, Equipment Overview, Mimetics without tackle, with tackle. General Shooting and Instruction				
	The Progressive Training Method for the Beginner				
	Step-1: Training with the empty hands Step-2: Drawing a rubber band Step-3 Drawing the bow the use of a bow sling. The use of the stabilizer on the practicing bow Grip The posture of the body Practicing hooking the string fingers for the beginner The height of setup Drawing Anchor The use of the kissers button for anchoring The effect the bow length has on the anchor position Full draw Step-4: Preparation practice of the release Practicing the release feeling for the fingers The length of travel of the release The direction training of the release Steps-5; The exercise for the				

	"Follow through"				
8	Scoring, Seeding Diagrams, Ranking, Results preparation (Computer Application)	L	6		
	Building Up Shooting Form				
	1 Bow arm unit, breathing control, Aiming is Really Aim, Study aiming, back tension, control/Collapse, control fallow through, getting a right Rhythm.				
	Yoga Role of yoga in Archery, Development of Mind concentration & Breathing, Yoga Asana's & Meditation. Benefits of Archery, Physical Benefits Mental Benefits: Fitness Considerations: Cardiovascular Training. Strength Training Integration into Training: Warm-up and Cool-down Regular Practice: Role of yoga in Archery, Development of Mind concentration & Breathing, Yoga Asanas BENEFITS OF ARCHERY 1. EXERCISE 2. STRENGTH 3. CONTROL 4. COORDINATION 5. PATIENCE 6. RELAX 7. SELF-CONFIDENCE				

	8. SOCIALISE 9. IMAGERY TRG 10. MENTAL PREPARATION Mental aspects of archery, Psychological preparation Pre competition, during competition & Post competition management of Yoga				
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PRACTICAL I

Total Credit: 10

Unit No.	Description/Topics Covered	Teaching Method	No. of Hours (period)	Online/Class room	Faculty
1.	1) Physical conditioning / Training for physical power. i) General endurance, jogging, Long Distance running, Various Games and Calisthenics. ii) General Strength – Weight training circuit training. Medicine ball exercises. iii) Flexibility exercises - stretching exercises. Draw practice with rubber tubes. Draw practice with the training bow. iv) An exercise of repeatedly drawing the bow. v) Drawing a bow and holding	P	45		

	<p>at full draw, an exercise of the time for normal shot. Practical Demonstrations of strength and conditioning techniques</p> <ul style="list-style-type: none"> • Written assignments on program design and athlete assessment • Case study analysis • RESISTANCE-BASED ARCHERY TRAINING 				
2	<p>Technique training and practice with tackle and without tackle and placing students on the shooting line according to station as per learning stage.</p> <p>i) Teaching of various basic technique, Teaching stages. Application and importance. ii) Stringing the bow in various ways. Iii) Square stance. Close stance. Natural stance. Open stance. iv) Nocking the arrow to the string. In line draw and proper anchoring. v) Dry Practice without bow. vi) Draw practice with flexible rubber band. vii) Draw practice with training bow (less pound).</p>	P	50		
3	<p>1 Eye dominate test:</p> <p>i) Through cross palm method.</p> <p>ii) Finger pointing method.</p> <p>iii) Card board method.</p> <p>2 Lesson plan procedure</p> <p>3 string making</p>	P	35		

4	<p>Fundamental Techniques, Training and practice: 1)Draw ii) Chin Anchor iii) Side anchor. iv) Hold iv) Aiming. vi) Alignment of string and sight. vii)Release viii) Follow through • Set to set up, pre-draw, opening the bow</p> <p>Overdraw Prevention and Imaginary Shoot</p> <p>Shot target archery, arrow Bow selection Expansion, aiming & follow-through</p> <p>Biomechanical Efficient Skill and technique.</p> <p>Application of Latest technology and Software /Video and Photo Analysis</p> <p>Analysis of techniques .Training for Biggame's to eight level Progressive Methods</p> <p>Practicing Archery on the Hand-eye Co-ordination.</p>	P	75		
5	<p>Field marking and officiating practice, Organizing competition.</p> <p>i) Field layout. ii) Target setting. iii) Fixing the target faces. iv) fixing the target numbers, flags and placing red and yellow flags. v) Positioning the audio- visual time</p>	P	25		

	control equipment, zebra plate.				
6	<p>Pedagogic practice, fault correction:</p> <ul style="list-style-type: none"> i) Checking bow hand, wrist, elbow, grip, shoulder. ii) Checking string arm, elbow. iii) Head angle checking iv) Shot sequence v) Breathing Patterns vi) One Arrow Attitude vii) Right amount of practices When not to Practice viii) 100%control conscious and subconscious mind ix) Practical applications Target panic and solution. 	P	30		
7	<p>Shooting in wind and rain:</p> <ul style="list-style-type: none"> i) The changing location of the arrows landing in the Target. ii) The changes in the flight of an arrow. iii) Changes of team tactics during a team round contest when wind Blows. 	P	25		
8	<p>Knocking point making and Training for the Physical power & ability to aim at various points around the target face:</p> <ul style="list-style-type: none"> i) Measuring string height. ii) Nocking height. • Preparatory movements: feet position, arrow loading, string grip, bow hand setting (end and sling), body pre-position, end of body pre-position, point on preparation, bow raising, pre-draw. • Force production: Bow shoulder/arm, draw (source, still top body, practical subjects 	P & FW	30		

	<p>assignment, direction, balance, speed), anchor, alignments of body/forces and string, full</p> <p>draw form, point on getting to full draw, expansion with checks, introduction to a clicker,</p> <p>aiming</p> <ul style="list-style-type: none"> • Follow through: release (predispositions, exercises, form pending expansion types), bow <p>hand and bow arm follow-through, string clearance and target panic</p> <p>Rhythm and shooting time</p> <p>Equipment and body alignment</p> <ul style="list-style-type: none"> ❖ Rhythm ❖ Aiming time and Clicker time <p>YOGA</p> <p>Physical Benefits Mental Benefits:</p> <p>Fitness Considerations:</p> <p>Cardiovascular Training.</p> <p>Strength Training Integration</p> <p>Training: Warm-up and Cool-down Regular Practice:</p>				
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DETAILED SYLLABUS – SEMESTER II

THEORY II

Total Credit: 4

Unit No.	Description/Topics Covered	Teaching Method	No. of Hours (period)	Online/ Class room	Faculty
1.	Skill, Technique & Fault Rectification	L	8		
	<p>Shot Cycle Introduction Emphasis on "Barrel of the Gun", What is Holding? Establishing Proper Back Tension and Expansion, Stance, Posture, Continuing Emphasis on "Barrel of the Gun" Hook and Grip (Finger Slings), Set to Set-up & Strong Bow Arm, Introduction to Mindset. Build Sequence of shooting. Common Problems, The Archer cannot close the Non-Dominant Eye when Aiming, Shoulders moving up whilst raising the Bow, Drawing the Bow with the Arm instead of the Muscles in the Back, Variations of the string fingers pressure on the string, Moving the Head toward the String, The Arrow falls off the Rest while Aiming, Moving the Body Weight onto the Bow Foot, Moving the Body Weight onto the Rear Foot, The Bow Shoulder moving Upwards and Backwards, Expanding at full draw with the arm instead of muscles from the posterior part of the shoulders and the back, Canting the bow whilst Aiming, The String hits the Bow Arm, Elbow or Forearm, Grabbing the</p>				

	<p>Bow upon Release, Target Panic.</p> <p>Shot Cycle</p> <p>Shot Sequence</p> <p>Shot Cycle for 10x</p> <p>Total Science of Shot Cycle</p> <p>Archery Technique Angular Movement</p> <p>Breathing and breath control during the shot cycle.</p> <p>Arrow pattern: Causes of High arrow, Low arrows, Right Arrows, Left Arrow, Scattered Arrows.</p>				
	<p>Teaching Suggestions for Practical Coaching / Sequence of Shooting</p>				
	<p>Stance - Stance and Body Stability. Nocking the arrow, Hooking the String and Grip, Bow Hand and Elbow Body Pre-setting, Raising the bow, Pre-draw, Draw, Anchor, Facial Marks or References. Draw, Expansion, Aiming, Release, String Clearance, Follow-through, Breathing pattern.</p>				
2	<p>Arrow Selection</p>				
	<p>Proper Bow Arrow Selection For Target Archery and Indoor Shooting Arrow Spine, Spine Rating, Arrow Spine Testing Machine, Arrow Front of Center (FOC) Balance and Why We Should Care Aligning and Weight Balancing of Bow</p>				
	<p>Making Practice More Effective (Teaching / Coaching Aids)</p>				

	Developing a Training Program, Training Drills and Activities, Stretch-Band Shooting Drill, Lightweight Bow Training Drill, Static Strap Training Drill Blank Bale, Execution Drill, Bow Release Drill, Posture Drill, SPT Drill: - Flexibility SPT Drill, Holding SPT Drill, Structure SPT Drill, Power SPT Drill, Competition Training, Distance Shooting, Four-Minute Drill, Olympic Round Practice, Volume Practice, Intensity Practice				
	Biological Cycles				
	Jetlag. Effect of time zone Body build in clock, Daily cycle. Effect of time zone changes of human body.				
3	Talent Identification and Development	L	15		
	a) Definition and importance of talent selection b) Criteria, Principal and procedure for talent selection, scouting and Grooming in Archery. c) Development of talent on long term basis d) Monitoring and registration of progress Selection of elite Archery for high performance training and selection of Archery team for competition.				

	Recurve & Compound Bow Equipment Tuning				
	<p>Introduction to tuning competitive Recurve & Compound bows, this section includes step-by- step tuning procedures for obtaining optimum performance and accuracy from bow and arrow setup.</p> <p>Preliminary Bow Set-up</p> <p>- Install All Accessories, Static & Dynamic Alignment, "Centering" the Arrow: Adjusting the Arrow's Left/Right Position, Clearance, Forces acting on the arrow, static tune. Nocking point location stabilizers. Control and Rotation Weight Balance. String and bow Aliening. Different Tuning Methods, Walk back, Bare shaft, Elision. Fine tune. micro tune. Tuning for Groups' Tuning for 10[X]</p> <p>Front of Centre Balance (FOC), Objective of Bow Tuning, Starting the Tuning Process, Establishing a Basic Tune, Cushion Plunger Setting, Vertical & Horizontal grouping patterns, Cam Synchronization.</p> <ul style="list-style-type: none"> • Stabilization • Compound technique <p>Using various software's for tuning</p>				
4	The method of using a clicker				

	<p>When to introduce the use of a clicker.</p> <p>Preparation training for using a clicker.</p> <p>The using a clicker and extending for the beginner.</p> <p>The selection of the arrow length. Checking the arrow length for the growing young archer. The first step to using a clicker (To draw a bow watching the arrow point). The second step of using a clicker.</p> <p>Training to be confident in the wind</p> <p>The situations to consider in windy conditions. The positional change of the arrows hitting the target. The change of the arrow flight. When the archers clothes flutter during windy conditions. The change of the centre of the body</p> <p>The direction of the bow arm.</p> <p>Changing the extending time</p> <p>Changing the balance of extending</p> <p>The reduction of the physical stamina</p> <p>The complication of the decision about the aiming off</p> <p>Uneasiness feeling about the wind</p> <p>Changing the team tactics during a team match</p> <p>Measuring the archer's ability to adapt the wind</p> <p>The technique of aiming off from the centre of the target</p> <p>Measuring the archer's ability to</p>				
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	<p>judge the direction and strength of the wind</p> <p>The observing changes of the extending time Evaluating the psychology of the archer A method of training to help shooting in the wind An exercise of repeatedly drawing the bow for a given set</p> <p>The drawing of a bow and extending at full draw in excess of the time for a normal shot Training for the various abilities to aim off Training a sense of unity and direction of extending when "aiming off"</p> <p>The aiming off and follow through</p> <p>The adaptation of changing the extending time</p> <p>Maintaining the balance of extending</p> <p>The cultivating the ability to judge the aiming off location for different wind strengths and conditions</p> <p>The observation and information gathering about wind conditions of a sports ground before taking part in a competition</p> <p>What to practice during an "open" practice time</p>				
	<p>Bow String</p> <p>String function, String attachments, Factors Influencing breakage, Abrasion, String construction method, String twist, Serving direction, Brace Height. Wax application serving</p>				

	<p>reinforcement String dynamics.</p> <p>Basic compound bow setup.</p> <p>Setting tiller, setting wheel or cam rollover, Setting a nocking point. Setting up an arrow rest, Setting rest pressure.</p> <p>Setting peep height or kisser button, Setting peep rollover.</p> <p>Choosing peep sight size, Setting other components, Miscellaneous components.</p>				
5	<p>Injuries related to archery and women in Sports:</p>	L	5		
	<p>Form Related Injuries Sore finger</p> <p>Type of finger Tabs Added finger Protection Sore shoulders</p> <p>Strings hand side Training Technique Bursitis, Tendonitis, The bow arm side.</p> <p>Upper back pain, Use of head and ice.</p> <p>Psychology reason for injury. Physiological and anatomical difference between sexes.</p> <p>Special creatures for Training of women.</p>				
	<p>ARCHERY ANATOMY</p>				
	<p>Important muscles of the shoulder girdle and the back, collaboration of these muscles when shooting</p> <p>deltoid muscle, supraspinatus, infraspinatus, subscapular, major and minor teres muscle, anterior serratus muscle, major and minor pectoral muscle, major</p>				

	and minor rhomboid muscle, latissimus dorsi and trapezoid muscle, biceps muscle, triceps muscle, Other muscles used in archery muscles of the neck, muscles of fingers and hand, deep grip versus shallow grip (release hand), high grip versus low grip (bow hand), muscles of the legs and buttocks, square stance versus open stance				
	Software technology analysis				
	Use software and technology to study performance Analysis of Skill and Technique Video Analyze / Archer shooting Form By Using Different software's Dartfish ,Kinovia etc. Changes in archery technology briefing and video filming Analysis of techniques.				
	Bow, Arrow & String Dynamics				
	Bow Mechanics, energy, Transfer of energy, Bow design, Length, Bow arrow Relation. Thickness, Width of Limb, Limb Stress Distribution, Limb design, Degree of centre shot, handle design, Bow alignment. Bow efficiency, Stack, dynamic Balance, tillering. Arrow Behavior, Arrow's Paradox. Spine, weight. Point of Balance. Arrow size arrow length. Torque and damp. Control rotation and function of stabilizer. String dynamics.				

7	FIGHT AGAINST DOPING	L	7		Guest / In house
	Prohibited Substances and methods In Archery, Therapeutic Use Exemption procedures, Doping Control Procedure				
	Environmental effects and remedies and excessive sun and performance:				
	<p>Introduction, Shooting, Equipment, Field fixture, Competition-Internal and External, Dealing with sunburn. Stress and anxiety effect on performance why does stress occur for the Archer?</p> <p>Physiological and psychological symptoms before and after competition, Suggested training technique effective and corrective procedures. Improving focus on attention. concentration and confidence Training. Integration of mind and body the Nideffers theory on attention and archery suggested training techniques, cues, guidelines.</p> <p>Importance of confidence training, Objective self-assessment and analysis, Recommendation Implementation for coaches</p>				
8	NTS/ BEST Method (Biomechanically Efficient Shooting Technique)				
	The BEST method has been derived by careful study of the most successful archers in				

	<p>international competition combined with extensive scientific research into all aspects of the archery shot. Included study areas and methodologies include,</p> <ul style="list-style-type: none"> • Newtonian Mechanics • Motion Analysis Systems • High Speed & Normal Speed Video • Types of Forces & Force Measurement Devices (Force Plates) • Electromyography (EMG) • Computer Video Analysis • Delayed Video Playback • Heart Rate Monitors <p>The result of these study efforts is a shooting form approach that maximizes the body's strengths and minimizes the shot variables. Leg Strength, Grip Strength, Draw Force, Reaction Time, Visual Reaction time, clicker reaction time: Anticipation time. Body type, Visual Activity. Stance and center of gravity. Classification of Stance position. Consistency of stance position, summary of force platform Result, Sighting Motion Result, Summary of sighting analysis. Body sway. Segmental stability.</p>				
	High Performance Plan:				

	<p>This plan represents the primary focus of Indian Archery – Sustained Competitive Excellence. The High-Performance Plan will outline specific performance markers, objectives and the means to achieving these objectives. A key element to the HPP is Coach Training. Led by the National Head Coach and integrating Sport Science personnel</p> <p>LTAD Train to compete, Train to Excel</p> <ul style="list-style-type: none"> • Swot Analysis • Planning and periodization's • Training Plan • Athlete Development Pipeline • International Competitive Analysis • High Performance Program Structure • High Performance Program Operational Chart • Performances Assessment and Analysis • Long-Term Archer Development. • Short team performance plan • Block periodization's and plan • Planning to win and excel <p>Performance Enhancement Team</p> <ul style="list-style-type: none"> • Planning & Programming a Season • Planning to Peak/calculations 				
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	<ul style="list-style-type: none"> • Planning a session • Training Schedule. <p>National Archery Team Training Plan</p> <p>Team management and coaching in competition</p> <ul style="list-style-type: none"> • Physical development and conditioning, training plans <p>"Mental aspect of Archery"</p> <p>Preparation of High level computations</p>				
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PRACTICAL II

Total Credit: 10

Unit No.	Description/Topics Covered	Teaching Method	No. of Hours (period)	Online/Class room	Faculty
1	<p>Physical conditioning/ Training.</p> <ul style="list-style-type: none"> • General Endurance, Jogging, Running. • General Exercises, Calisthenics Game. • General and specific strength development weight training medicine ball exercise. • Warming up general and Specific • Practical demonstrations of strength and conditioning techniques • Written assignments on program design and athlete assessment • Case study analyses <p>Physical Condition Development</p>	P	45		

	in Archery				
2	<p>Breathing during anchor and release.</p> <ul style="list-style-type: none"> • Set, Set up, Drawing, Anchor, The speed of release. • The distance of finger travel during the release. • The use of back muscles at the time of release. Application of different software and video analysis <p>Biomechanical shot. application and correction</p> <p>Shot Cycle</p> <p>Shot Sequence</p> <p>Shot Cycle for 10x Total Science of Archery Technique = Angular Movement</p> <p>Breathing and breath control during the shot cycle</p> <p>Heart rate monitoring and enhance Performance level</p> <p>* B E S T (BIOMECHANICALLY EFFICIENT SHOOTING TECHNIQUE. COMPOUND BOW – use of the release/ proper shot-back tension / TARGET PANIC / Recurve & Compound</p>				

3	<p>Preparation for shooting in the wind and rain and shot analysis. The adoption of changing the extending time.</p> <ul style="list-style-type: none"> • Training for maintaining the balance of extending. • Proper stance. • Body balance at the time of anchoring. • Proper anchor point. • Drawing under the clicker. <p>Release pattern.</p>	P	40		
4	<p>Shooting Practice and assessment (Long distance and short distance)</p> <ul style="list-style-type: none"> • Application of fundamental technique training for clicker control, bow control Scoring shot sequences. Shot cycle SHOOTING FORM. <p>RHYTHM AND SHOOTING TIME,</p> <p>ARCHERY BALANCE WITH STABILITY AND ACCURACY ARCHERY RECURVE BOW</p>	P	50		
5	<p>Pedagogic Practice and mental practice.</p> <ul style="list-style-type: none"> • Teaching, Coaching, Problem correction. • Tension relaxations, Imagery training. Yoga. 	P	25		
6	<p>Shot Sequence.</p> <p>Shot Cycle for 10x</p> <p>Total Science of Shot Cycle</p> <p>Archery Technique Angular Movement.</p> <p>Breathing and breath control during the shot cycle.</p>	P	35		

7	<p>customize equipment , Aliening and balancing. string making and Bow tuning:</p> <ul style="list-style-type: none"> • Arrow repairing. • Replacing an arrow rest. • Remarking the Nocking point. • Clicker setting. • Arrow making • Bow Tuning Various distance method . • Bare shaft method. • Paper tuning. Tuning for Groups Fine and micro tune 10 tune. 				
8	<p>Proper Alignment For Compound Bow Using Biomechanics To Your Advantage</p> <p>Archer's Evaluation.</p>				
9	<p>Video Analyze / Archer shooting Form By Using Different softwares Dart fish ,Kinovia etc. Changes in archery technology briefing and video filming Analysis of techniques</p> <p>. Efficient Archery Posture Training Analysis of Archery</p>				
10	<p>From Basic form ... To efficient shooting B E S T (Biomechanically Efficient Shooting Technique) Analysis of techniques Training for Beginners Progressive Methods</p>				

Training Books, Journals, Online Resources Prescribed for Trainees

- Canadian coaching Manual Archery level –I, Level –II and Level- III. Level IV
- Recurve and compound FITA Coach's manual.
- WA (FITA) Intermediate Coaching Manual
- US Archery coaching Manual Level I, II & III
- TOTAL ARCHERY INSIDE THE ARCHER
- KSL Archery
- NAA Manuals
- USA Archery by Human Kinetics
- Kim, Hyung Tak Archery
- <http://archerywinchester.com>
- WA Rule Books 1-6
- Archery Anatomy: An Introduction to Techniques for Improved Performance
- Archery fundamentals
- Precision Archery
- Zen in Archery
- Winning Understanding Archery
- Encyclopedia of Archery
- Archery Beginners
- Archery steps to Success

ASSESSMENT

	Semester 1	Semester 2	Internal/External %
Theory Monthly Assessments	Monthly Assessment by using Online Testing Tools with Multiple Choice & Descriptive questions of covered topics during the month	Monthly Assessment by using Online Testing Tools with Multiple Choice & Descriptive questions of covered topics during the month	30 % marks of internal assessment will be done on the basis of the marks scored in monthly assessment by adding all the score

Monthly Practical/Lab/Field	Monthly Assessment Practical demonstration & Execution of learnt techniques	Monthly Assessment Practical demonstration & Execution of learnt techniques	30 % marks of internal assessment will be done on the basis of the marks scored in monthly assessment by adding all the score
Monthly Quiz/Assignments	1 Assignment per month Total – 4 Assignments	1 Assignment per month Total – 4 Assignments	30 % marks of internal assessment will be done on the basis of the marks scored in monthly assessment by adding all the score
Theory Exam	At the end of semester – I	At the end of semester – II	70 % of total score in Theory
Practical Exam	At the end of semester – I	At the end of semester – II	70 % of total Score in Practical