



NS NIS PATIALA

SYLLABUS FOR DIPLOMA IN SPORTS COACHING

DISCIPLINE: SWIMMING

COURSE CODE: SW - 17



Total Credits: 24	Semester - I	L	Assignment	P/FW	SW	TOTAL CREDIT UNITS
		87	8	300	13	12
		(L-Lecture, P-Practical, SW-Self Work, FW-Field Work)				
	Semester - II	L	Assignment	P/FW	SW	TOTAL CREDIT UNITS
		95	8	300	5	12
		(L-Lecture, P-Practical, SW-Self Work, FW-Field Work)				

COURSE OBJECTIVES:

- To impart knowledge and develop the concept of coaching skills in Swimming/Water Polo/Diving.
- To educate them about the Swimming pool maintenance, safety and sanitation.
- To give practical knowledge about the organisation and management of competition in swimming/water polo/Diving.
- To enrich the performance skills for demonstration and explanation of techniques to the athletes and bringing them into practice.
- To educate about the Technical Rules and its exploitation in order to develop the tactical abilities of the athletes.
- To explain about the organizational rules that would develop their skills to organize domestic and international events.
- To explain the requisite of a swimmer for talent identification in the respective sport.

LEARNING OUTCOMES:

- The students will be able to understand the basic concept of coaching and its philosophy to be a successful coach.
- To enable them to learn the proper basic and advanced swimming techniques and mechanism behind each technique.
- To enhance the student's skills to design training programmes, develop motor qualities, techniques and tactics.
- The students will be able to understand the Computer Applications to implement during the training and competition.
- To enable the coaches to design the training programme for their athletes as per their requirements.
- To ensure that they can do the performance assessment by using qualitative and quantitative methods for development of Swimming.
- Practically to learn Officiating in a various level of competition in Swimming/Water Polo/Diving.

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.	History - Development & Organizations a) History of Swimming – World, Asia, India. b) Development of modern competitive strokes. Swimming Federation of India – Organization structure and functions recognized by – IOA, SAI, MYAS (Its affiliated State Units)	SW	10	On line	Diploma Students
2.	Rules & their Interpretations in swimming a) FINA- Organization, structure and its functions Swimming Competition Rules- regulations & Interpretations.	SW L	3 10	Online	Prabir Kumar Khanra Ms. Bijili. P.C
3.	Organization and Management of competition: a) Swimming b) Water polo c) Diving	L	4	Online	Expert
4.	Facilities and their Management a) Constructions of Swimming Pool and facilities: i. Maintenance ii. Chemicals required for maintenance iii. Pool water tests	L	4	Online	Prabir Kumar Khanra

	b) Safety & hygienic rules Maintenance of swimming pool equipment.				
5.	Common diseases & injuries of Swimmers, their causes and Prevention in competitive swimming	L	3	Online	Ms. Bijili.P.C
6.	Pre-requisites of a Swimming Coach a. Qualities, Duties & Code of Conduct of a Swimming Coach. b. Role and responsibilities of coaches at different level.	L	3	Online	Ms. Bijili.P.C
7.	Pre-requisites of a Competitive swimmer a. Anthropometrical b. Physiological c. Psychological d. Knowledge of general & Technical know- how of swimming and competition.	L	4	Online	Expert
8.	Methods of Teaching/Coaching a) Class organization i. Principles ii. Organization iii. Formations Control.	L	4	Online	Ms. Bijili.P.c
9.	A. The Warming up: a) Warming up during training Type: i. General ii. Specific iii. Methods and Means. b) Warming up – during competition	L	3	Field Work	Ms Bijili P.C.

	<ul style="list-style-type: none"> i. General ii. Specific <p>Methods and Means</p> <p>B) Limbering down:</p> <ul style="list-style-type: none"> i. During Training ii. During Competition <p>Effects, Methods & Means.</p>				
10.	<p>Teaching swimming to the beginners (Learn to Swim):</p> <ul style="list-style-type: none"> a) Teaching basic swimming skills – Submerging, Jumping, Floating, Locomotion and Breathing. b) Laws of learning applied in swimming. c) Methods of teaching. d) Sequence of teaching competitive swimming strokes. 	L	7		Ms. Bijili.P.c
11.	<p>Mechanical Principles involved in:</p> <p>a) Swimming</p> <ul style="list-style-type: none"> i. Resistance & Propulsion. ii. Action & Reaction Law. iii. Bernoulli's effect. iv. Theoretical Square Law. v. Continuity of movements. vi. Transfer of momentum. <p>b) Faults and corrections:</p> <ul style="list-style-type: none"> i. Definition. ii. Causes of faults. iii. Types of faults. iv. Methods of correction of technique faults. 	L	5	5	Expert
12.	<p>Technical Analysis in Front Crawl</p> <ul style="list-style-type: none"> i. Head position ii. The body position iii. Horizontal body alignment iv. Lateral body alignment v. Breathing 	L	8		Ms PC Bijli

	<ul style="list-style-type: none"> vi. Body roll vii. The Arm stroke viii. The Flutter kick ix. Coordination. <p>Starts:</p> <p>Various starts – Grab start, Track start & circular arm swing start for free style (relay), use of 5th Stroke (Under water kick).</p> <p>Turns:</p> <ul style="list-style-type: none"> i. Various turns – Open turn, flip turn ii. Advantages of flip turn over open turn. iii. Use of 5th (under water kick) <p>Finish: Front Crawl events. Common faults, causes and corrections of stroke and drill progression.</p>				
13.	<p>Technical Analysis of Back Stroke</p> <p>A) The Back Stroke:</p> <ul style="list-style-type: none"> a) Head position b) Body position c) Shoulder roll d) Leg kick e) Under water kick f) Arm Action- pull g) The Recovery h) The Breathing i) The Coordination <p>B) Start - Use of Backstroke Ledges, Under water kick (5th Stroke)</p> <p>C) The Turns – Simple turn, roll over turn, under water kick (5th stroke)</p>				

	D) Finish – as per FINA Rules Fault & Corrections, formulation of drill progression				
14.	Tactics in Relay swimming a) Importance of tactics. b) Offensive strategy. c) Defensive strategy. d) Basic traits of a relay swimmer. e) Relay race pattern. f) Relay change over.	L	4		Prabir Khanra
15.	Diet & Nutrition for Swimmers a) Objectives b) Diet during training (Pre-training, during training, post training). c) Tips on food selection d) Fluid and Glycogen replenishment. e) Tips for maintaining body weight. f) Vitamins and Minerals. g) Competition day diet (Pre-competition, during competition, post competition)	L	6		Expert
16.	Development of specific motor abilities in swimming (in water): a) Endurance – means and methods. b) Speed – means & methods. c) Strength- means & methods. d) Power – means & methods. e) Coordination abilities – means & methods.	L	6		Expert

17.	Individual Medley events switch over turns. a) Butterfly to Backstroke b) Backstroke to Breast stroke c) Breast stroke to Freestyle.	L	3		Khanra
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PRACTICAL - I

Total Credit: 8

Unit No.	Description/Topics Covered	Teaching Method	No. of Hours (period)	Online/ Class room	Faculty
1.	General & Specific warming up a) On land b) In water – Methods, Means & control load.	P	30	Field/ Practical	Prabir Kumar Khanra & Bijili.P.C
2.	Development of General conditioning abilities: a) Freehand/Calisthenics exercises b) Development of basic Endurance in Swimming Development of basic strength, speed, flexibility & coordination abilities required in swimming on land.	P	70		Prabir Kumar Khanra & Bijili.P.C

3.	Development of personal performance & demonstration Ability in: <ul style="list-style-type: none"> a) All four competitive swimming strokes. b) Turns in all competitive swimming strokes. c) Starts of all competitive swimming strokes. 	P	70		Prabir Kumar Khanra & Bijili.P.C
4.	Teaching (Pedagogic) Practice: <ul style="list-style-type: none"> - Teaching Lesson plan. 	P	80		Prabir Kumar Khanra & Bijili.P.C
5.	Test and Measurement- General fitness and technical performance in strokes. <ul style="list-style-type: none"> a) Endurance test (1500m/800m) b) I.M.Test (400m/200m) 	P	50		Prabir Kumar Khanra & Bijili.P.C

	c) An Olympic event test.				
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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.	Water polo (W/Polo)	SW	5	Online and Practical	Expert
	a) Interpretation of FINA (W/Polo) Rules. b) Profiles of a top water polo player. c) Beginners exercises for ball handling, individual, pair & group exercises. d) Category of passes.	L	15		

	e) Types of passes. f) Types of W/Polo shots. g) Specific training for W/Polo players & goal keepers. h) Individual and team Offensive tactics. i) Individual and team j) Defensive tactics.				
2.	Diving: (Spring board, High board, Synchronized diving) a) Interpretations of FINA Diving Rules. b) Pre-requisites of a Diver for high performances. c) Teaching basic Dives to Novices.	L	8	Online and Practical	Expert
3.	Development of various motor abilities of swimmers on land:			Online and Practical	

	<p>a) Endurance – Means, Methods & Equipment.</p> <p>b) Strength – Means, Methods & Equipment.</p> <p>c) Power- Means , Methods & Equipment (Plyometric).</p> <p>d) Flexibility – Means, Methods & Equipment.</p> <p>e) Speed – Means, Methods & Equipment.</p> <p>f) Coordination abilities – Means, Methods & Equipment.</p>	L	3		Expert
4.	Identification of Talent and Development:			Online and Practical	
	<p>a) Selection criteria of talent based on scientific principles, tests and</p>	L	3		Expert

	measurements. b) Training the age group swimmers. c) Long Term Athlete Development Plan (LTADP)				
5.	Life Saving: a) Methods (Direct, Indirect) b) Approach factors. c) Causes of drowning. d) Types of holds and Releases. e) C.P.R f) Mouth to Mouth Resuscitation. g) Number of Life Guard required in Long course and short course h) Criteria for Life Guard selection: i) 500m – 10 mins. ii) Underwater swimming - 20mtr. iii) Picking up 25 kg object from pool bottom. iv) Toeing victim 25 mtr. v) 25m sprint vi) Basic First Aid.	L	5	Online and Practical	Expert
6.	Computer application in competitive swimming:			Online	

	i) Basic of MS Office. ii) Computer application during training (Hy-Tek workout manager). iii) Computer application during competition (Hy-Tek – Meet manager). iv) Presentation, Race analysis, Stroke Analysis etc.	L	6	and Practical	Expert
7.	Technical Analysis of Breast stroke a. Introduction b. Head position c. Body position d. Arm action – Pull, Recovery e. Breathing f. Leg Action (Whip kick, wage kick) g. Coordination h. Breast stroke start (as per FINA rules, pullout) i. Breast stroke turn j. The finishes of Breast stroke event. k. Fault, causes of faults, correction (Drill progression)	L	8		Ms. Bijili P.C
8.	Technical Analysis of Butterfly Stroke:			Online and	

	a) Introduction. b) Head position. c) Body position. d) Arm action. e) Breathing. f) Dolphin kick. g) Under water kick. h) Coordination. i) The start. j) The turn. k) The finish of Butterfly events. l) Fault, cause of faults & correction (Drill progression).	L	8	Practical	Ms. Bijili.P.C
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9.	Planning and Periodization	L	6	Online and Practical	Expert
	a) Short term planning. b) Long term planning. c) Lesson plan. d) Single periodization. e) Double periodisation. f) Multiple periodisation. g) Block periodisation.				
10.	Training methods and means			Online	

	<p>A) Training methods and training sets used in swimming.</p> <p>B) Training the swimmers for various distances:</p> <p>i) Training the sprinters.</p> <p>ii) Training the middle distance swimmers.</p> <p>iii) Training the distance swimmers.</p> <p>iv) Training I.M swimmers. v) Training the Relay swimmers.</p>	L	5	and Practical	Ms. Bijili.P.C
11.	Training load (Basic and high performance):	L	3	Online and Practical	Ms. Bijili.P.C
	<p>a) Types</p> <p>b) Principle of load.</p> <p>c) The components of load.</p> <p>d) The volume.</p> <p>e) The speed/intensity.</p> <p>f) Interval of test.</p> <p>g) Frequency.</p> <p>h) D.I.R.T</p> <p>i) The judgment of load.</p> <p>j) The arrangement of load.</p>				
12	Fundamentals of preparing training schedule. (Macro, Meso, Micro & daily Session).	L	2		Ms. Bijili.P.C

13	Specific Swimming test:	L	13		
	<p>A) Swimming performance ability test:</p> <p>i) Speed test(6x25m)</p> <p>ii) Endurance test:</p> <ul style="list-style-type: none"> • 800m test. • 2000m test. • 20x50m test (R.I.10 Sec at 90%). • 6x200m test (at 85% R.I .30 sec). <p>B) Swimming technique, start & turn evaluation test:</p> <p>a) Technique check list.</p> <p>b) Stroke frequency test.</p> <p>c) Stroke length test.</p> <p>d) 3x50m test.</p> <p>e) 57.5m test.</p> <p>f) Maximum Heart rate test.</p>			Practical	<p>Ms. Bijili.P.C</p> <p>Expert</p>

	C) KHELO INDIA proposed Test: a) T 3000 b) T 20 c) 4x 150 I M kick d) 4x25 explosive (IM) @ 2' e) 1000m mix IM (400 free, 300 back,200 breast,100 butterfly), f) 7 x 200 step Test g) 8 x 50 efficiency test.				
14.	Training systems: a) Zone 1 – Aerobic (A1, A2, A3). b) Zone 2- Anaerobic Threshold. c) Zone 3 – High performance endurance. d) Zone 4 –Anaerobic (Race – Pace training, lactic acid	L	10		Expert

	accumulation).				
	e) Zone 5 – Sprint (alactic).				

PRACTICAL II

Total Credit: 8

Unit No.	Description/Topics Covered	Teaching Method	No. of Hours (period)	Online/Class room	Faculty
1.	Competition warming up (Pre – race warm up) Methods, Means and Control of load (Appropriateness for the targeted events).	P	10	Practical	Prabir Kumar Khanra & Bijili.P.C
2.	Development of personal performance and demonstration ability in: a) All four strokes, starts, turns & finishes. b) Stroke Techniques.	P	30		Prabir Kumar Khanra & Bijili.P.C
3.	Development of specific land conditioning abilities	P	30		Prabir Kumar Khanra & Bijili.P.C

4.	Development of personal performance and demonstration ability in Diving and Water Polo	P	80		Prabir Kumar Khanra & Bijili.P.C
5.	Life- saving skills practice	P	30		Prabir Kumar Khanra & Bijili.P.C
6.	Tests and measurements – Swimming tests	P	30		Prabir Kumar Khanra & Bijili.P.C
7.	Teaching (Pedagogic) practice: a) Teaching lesson plan. b) Training lesson plan.	P	80		Prabir Kumar Khanra & Bijili.P.C
8.	Active Recreation: a) In water b) On land.	P	10		Prabir Kumar Khanra & Bijili.P.C

Training Books, Journals, Online Resources Prescribed for Trainees

1. Swimming A training Programme by WRIGHT/ COPLAND.
2. Swimming Science by G. John Muller.
3. Breakthrough Swimming by CECIL COLWIN.
4. Science of Swimming faster by SCOTT RIEWALD, Ph.D and SCOTT RODEO,M.D.
5. Periodization (6th Edition) Theory and Methodology of Training by Carlo A. Buzzichelli and Tudoo. Bompà.
6. The science of Swimming – James E. Counsilman.
7. Swimming Fastest – E.W. Maglischo
8. FINA hand book (Rules Book)
9. Swimming – Dr. Gerhard Lewin
10. Championship Swim Training- Bill Sweetenham and Atkinson.

ASSESSMENT			
SEMESTER	THEORY/ PRACTICAL	INTERNAL	EXTERNAL
SEMESTER - I	THEORY (4 credits) (200 marks)	4 Periodical MCQ / Descriptive tests. (4 x 20 marks = 80 marks) 2 quizzes. (2 x 10 marks = 20 marks) 2 Assignments. (2 x 10 marks = 20 marks) (50 % of the total marks secured in the above three assessment components shall be the internal mark). (60 Marks)	At the end of the semester, (semester) examination shall be conducted for 140 marks with 3 hours duration. (140 Marks)
	PRACTICAL (8 credits) (400 marks)	4 Periodical Practical Assessment Tests (Demonstration & Execution of learnt techniques). (4 x 10 marks = 40 marks) 2 Teaching/Training ability assessment. (2 x 40 marks = 80 marks) (Total - 120 marks)	Practical examination (Demo & execution of learnt techniques) - 80 marks 1 Teaching/Training ability Assessment. - 160 marks VIVA VOCE - 40 marks (Total - 280 marks)

SEMESTER - II	THEORY (4 credits) (200 marks)	4 Periodical MCQ / Descriptive tests. (4 x 20 marks = 80 marks) 2 quizzes. (2 x 10 marks = 20 marks) 2 Assignments. (2 x 10 marks = 20 marks) (50 % of the total marks secured in the above three assessment components shall be the internal mark). (60 Marks)	At the end of the semester, (semester) examination shall be conducted for 140 marks with 3 hours duration. (140 Marks)
	PRACTICAL (8 credits) (400 marks)	4 Periodical Practical Assessment Tests (Demonstration & Execution of learnt techniques). (4 x 10 marks = 40 marks)	Practical examination (Demo & execution of learnt techniques) - 80 marks 1 Training/Coaching ability Assessment. -
		2 Training/Coaching ability assessment. (2 x 40 marks = 80 marks) (Total - 120 marks)	160 marks VIVA VOICE - 40 marks (Total - 280 marks)

