University of Mumbai

Website – mu.ac.in Email id - <u>dr.aams@fort.mu.ac.in</u> <u>aams3@mu.ac.in</u>



Academic Authorities, Meetings & Services (AAMS) Room No. 128, M. G. Road, Fort, Mumbai – 400 032. Tel. 022-68320033

Re- accredited with A ++ Grade (CGPA 3.65) by NAAC Category- I University Status awarded by UGC

No. AAMS_UGS/ICD/2024-25/423

Date: 24th March, 2025.

To,
The Director,
Garware Institute of Career Education
and Development,
Vidyanagari
Santacruz (East)
Mumbai – 400 098.

Sub: Bachelors of Sports Science (Three year) (Sem I & II)

Sir,

With reference to the subject noted above, this is to inform you that the recommendations made by the Advisory Committee & Board of Management of Garware Institute of Career Education & Development at its Meeting held on 4th September, 2023 & resolution passed by the Board of Deans at its meeting held on 9th August, 2023 vide Item No. 9.2 have been accepted by the Academic Council at its meeting held on 1st November, 2023 vide Item no. 9.4 (C) 5 (N) and subsequently approved by the Management Council at its meeting held on 5th February, 2024 vide Item No. 3 that in accordance therewith, in exercise of the powers conferred upon the Management Council under Section 74(4) of the Maharashtra Public Universities Act, 2016 (Mah. Act No. VI of 2017) the following program with Ordinance for Title of the Program, Eligibility and Regulation numbers for Duration of Program, Intake Capacity, Scheme of Examinations, Standard of Passing and Credit Structure along with syllabus of Bachelors of Sports Science (Three year) (Sem I & II) (Appendix – 'A') have been introduced and the same have been brought into force with effect from the academic year 2023-24.

The New Ordinances & Regulations as per NEP 2020 is as follows :-

Sr. No	Name of the Program	Name of the Program Ordinance no. Ordinance no. Ordinance no.			
Α	U.G. Certificate in Sports Science	O.GUA - 511 A	O.GUA - 512 A	One year	
В	U.G. Diploma in Sports Science	O.GUA - 511 B	O.GUA - 512 B	Two year	
С	Bachelors of Sports Science	O.GUA - 511 C	O.GUA - 512 C	Three year	
D	Bachelors (Hons) of Sports Science	O.GUA - 511 D	O.GUA - 512 D	Four year	

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Date: 24th March, 2025

: 2:

Regulation Nos						
Duration	R.GUA – 526					
Intake Capacity	R.GUA – 527					
Scheme of examination	R.GUA - 528					
Standard of Passing	R.GUA - 529					
Credit Structure	R.GUA – 530 A R.GUA – 530 B R.GUA – 530 C R.GUA – 530 D					

(Dr. Prasad Karande) REGISTRAR

A.C/9.4(C)5(N)/01/11/2023 M.C/3/5/2/2024

Copy forwarded with Compliments for information to:-

- 1) The Chairman, Board of Deans
- 2) The Dean, Faculty of Interdisciplinary Studies.
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Director, Department of Information & Communication Technology,
- 6) The Co-ordinator, MKCL.

Cop	y forwarded for information and necessary action to :-
1	The Deputy Registrar, (Admissions, Enrolment, Eligibility and Migration Dept)(AEM), dr@eligi.mu.ac.in
2	The Deputy Registrar, Result unit, Vidyanagari drresults@exam.mu.ac.in
3	The Deputy Registrar, Marks and Certificate Unit,. Vidyanagari dr.verification@mu.ac.in
4	The Deputy Registrar, Appointment Unit, Vidyanagari dr.appointment@exam.mu.ac.in
5	The Deputy Registrar, CAP Unit, Vidyanagari cap.exam@mu.ac.in
6	The Deputy Registrar, College Affiliations & Development Department (CAD), deputyregistrar.uni@gmail.com
7	The Deputy Registrar, PRO, Fort, (Publication Section), Pro@mu.ac.in
8	The Deputy Registrar, Executive Authorities Section (EA) eau120@fort.mu.ac.in
	He is requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to the above circular.
9	The Deputy Registrar, Research Administration & Promotion Cell (RAPC), rape@mu.ac.in
10	The Deputy Registrar, Academic Appointments & Quality Assurance (AAQA) dy.registrar.tau.fort.mu.ac.in ar.tau@fort.mu.ac.in
11	The Deputy Registrar, College Teachers Approval Unit (CTA), concolsection@gmail.com
12	The Deputy Registrars, Finance & Accounts Section, fort draccounts@fort.mu.ac.in
13	The Deputy Registrar, Election Section, Fort drelection@election.mu.ac.in
14	The Assistant Registrar, Administrative Sub-Campus Thane, thanesubcampus@mu.ac.in
15	The Assistant Registrar, School of Engg. & Applied Sciences, Kalyan, ar.seask@mu.ac.in
16	The Assistant Registrar, Ratnagiri Sub-centre, Ratnagiri, ratnagirisubcentar@gmail.com
17	The Director, Centre for Distance and Online Education (CDOE), Vidyanagari, director@idol.mu.ac.in
18	Director, Innovation, Incubation and Linkages, Dr. Sachin Laddha pinkumanno@gmail.com
19	Director, Department of Lifelong Learning and Extension (DLLE), dlleuniversityofmumbai@gmail.com

Сор	y for information :-
1	P.A to Hon'ble Vice-Chancellor, vice-chancellor@mu.ac.in
2	P.A to Pro-Vice-Chancellor pvc@fort.mu.ac.in
3	P.A to Registrar, registrar@fort.mu.ac.in
4	P.A to all Deans of all Faculties
5	P.A to Finance & Account Officers, (F & A.O), camu@accounts.mu.ac.in

To,

1	The Chairman, Board of Deans
	pvc@fort.mu.ac.in

2 Faculty of Humanities,

Dean

1. Prof.Anil Singh
Dranilsingh129@gmail.com

Associate Dean

- 2. Dr.Suchitra Naik Naiksuchitra27@gmail.com
- 3.Prof.Manisha Karne mkarne@economics.mu.ac.in

Faculty of Commerce & Management,

Dean

1. Dr.Kavita Laghate kavitalaghate@jbims.mu.ac.in

Associate Dean

- 2. Dr.Ravikant Balkrishna Sangurde Ravikant.s.@somaiya.edu
- 3. Prin.Kishori Bhagat <u>kishoribhagat@rediffmail.com</u>

	Faculty of Science & Technology
	Dean 1. Prof. Shivram Garje ssgarje@chem.mu.ac.in
	Associate Dean
	2. Dr. Madhav R. Rajwade Madhavr64@gmail.com
	3. Prin. Deven Shah sir.deven@gmail.com
	Faculty of Inter-Disciplinary Studies,
	Dean
	1.Dr. Anil K. Singh
	aksingh@trcl.org.in
	Associate Dean
	2.Prin.Chadrashekhar Ashok Chakradeo
	cachakradeo@gmail.com
3	Chairman, Board of Studies,
4	The Director, Board of Examinations and Evaluation,
	dboee@exam.mu.ac.in
5	The Director, Board of Students Development,
J	dsd@mu.ac.in DSW director@dsw.mu.ac.in
6	The Director, Department of Information & Communication Technology,
	director.dict@mu.ac.in

As Per NEP 2020

University of Mumbai



Title of the program

- A- U.G. Certificate in Sports Science
- B- U.G. Diploma in Sports Science
- C- Bachelors of Sports Science
- D- Bachelors (Hons.) of Sports Science

(Garware Institute of Career Education and Development)

Syllabus for Semester- Semester I and II

Ref: GR dated 20th April,2023 for Credit Structure of UG

(with effect from the academic year 2023-24 Progressively)

UNIVERSITY OF MUMBAI



(AS PER NEP 2020)

Sr.No.	Heading		Particulars
1	Title of program O: GUA – 511 A	A	U.G. Certificate in Sports Science
***************************************	O: <u>GUA – 511</u> B	В	U.G. Diploma in Sports Science
	O: <u>GUA – 511</u> C	C	Bachelors of Sports Science
	O: <u>GUA – 511</u> D	D	Bachelors (Hons.) of Sports Science
2	Eligibility O: <u>GUA 512</u> A	A	Must have completed class 12 with 40 percent marks, passed with Physics, Chemistry, Biology/ Maths in 10+2 of any State Board/ CBSC/ISC or A Level, IB, American 12 th grade or Equivalent or any other examination recognized as equivalent there to.
	O: <u>GUA 512</u> B	В	1. The candidate who has successfully completed U.G. Certificate in Sports Science OR
			Passed Equivalent Academic Level 4.5 2. Lateral Entry to be granted to the candidate who's Under Graduate Certificate credits are 60% equivalent to U.G. Diploma in Sports Science & he/she earns minimum 8 Credits from U.G. Certificate in Sports Science. 3. As per NEP criteria on the basis of RPL-Recognition of Prior Learning, Candidate to be admitted to 2 nd Year subject to He/she securing minimum 50% in the 1 st Year assessment of U.G. Certificate in Sports
	O: <u>GUA – 512</u> C	C	Science. 1. The candidate who has successfully completed U.G. Diploma in Sports Science OR Passed Equivalent Academic Level 5.0 2. Lateral Entry to be granted to the candidate who's Under Graduate Diploma

	O. CHA. 512 D		credits are 60% equivalent to Bachelor in Sports Science & he/she earns minimum 8 Credits from U.G. Diploma in Sports Science. 3. As per NEP criteria on the basis of RPL-Recognition of Prior Learning, Candidate to be admitted to 3 rd Year subject to He/she securing minimum 50% in the 2 nd Year assessment of U.G. Diploma in Sports Science. The candidate who has successfully
	O: <u>GUA – 512</u> D		completed Bachelor in Sports Science with minimum CGPA of 7.5 OR Passed Equivalent Academic Level 5.5
3	Duration of Program	A	1 Year
	R: <u>GUA – 526</u>	В	2 Years
		С	3 Years
		D	4 Years
4	R: GUA = 527 Intake Capacity	60	
5	R: <u>GUA - 528</u> Scheme of Examination	50% Indiv	o Internal – Continuous Evaluation o External- Semester End Examination ridual Passing in Internal and External mination
6	Standards of Passing R: GUA – 529	50%	in each component
7	Credit Structure R: <u>GUA - 530 A</u> R: <u>GUA - 530 B</u> R: <u>GUA - 530 C</u> R: <u>GUA - 530 D</u>	Attac	ched herewith
8	Semesters	A B C D	Sem I & II Sem I, II, III, & IV Sem I, II, III, IV, V, & VI Sem I, II, III, IV, V, VI, VII & VIII

9	Program Academic Level	A	4.5	
		В	5.0	
	-	С	5.5	
		D	6.0	
10	Pattern	Se	mester	
11	Status	Ne	W	
12	To be implemented from Academic Year Progressively	From Academic Year 2023-24		

Dr. Keyurkumar M. Nayak, Director,

UM-GICED

Prof. (Dr.) Anil Kumar Singh

Faculty of Interdisciplinary Studies

Preamble SYLLABUS FOR BACHELORS OF SPORTS SCIENCE

Introduction:

The Sports Industry in India is growing by leaps and bounds. As per the FICCI Vision document 2022 India is going to need 4.4 million trained manpower in the sports Industry. From a situation where India was primarily a cricket playing nation (playing only tests and one day internationals), we now have the IPL and multiple sports leagues in football, kabaddi, badminton, hockey etc. plus sports events like the Mumbai / Delhi marathons.

This explosive growth in sports has led to a huge jump in need for sports management professionals in allied industries like:

- a. Sports franchisees e.g., Mumbai Indians, Pune Sunrisers etc.
- b. Sports goods companies like Nike, Reebok etc.
- c. Sports federations.
- d. Consumer goods companies like Reebok, Nike, Bajaj, Colgate etc. who want to increase their brand association with sports.
- e. Celebrity Managers who will manage the careers of these upcoming sports personalities.
- f. Sports Event and Facility managers who will assist in the smooth running of the various events.

Aims & Objectives:

- The program aims to develop top class human resources for the sports industry with an essential industry knowledge and leadership skills and puts a special focus on the understanding required to pursue a successful career in this sector.
- Demonstrating employability skills is crucial to students standing out from the crowd in the face of today's fierce job market competition.
- Graduates from BSS become equipped with a portfolio of transferable skills which employers in all sectors look for.

Learning outcomes:

- To equip the students with an understanding of the science of sports.
- To build science skills of strength and conditioning, biomechanics, physiology, kinesiology in the science of sports.
- To enable passionate professionals to develop the sports orientation in India in a systematic way.

6) Credit Structure of the program – (Parishisth-2)

R: <u>GUA - 530 A</u>

	FIRST YEAR										
Leve I	Sem	Major Mandator y	Ele cti ves	Minor	OE	VC, SEC (VS EC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cum. Cr./ Sem.	Cumul ative	ar en en en
	SEM 1	Anatom y and Physiolo gy I (T) (4 Cr) Basics of Biochem istry (T) (2Cr)		•	Sports Pharm acy (T) (2cr) OR Found ation of Nutriti on (T) (2 Cr) Olymp ic Move ments in Sports (T) (2cr) OR Introdu ction to Sports Manag ement (T) (2cr)	VC: Introdu ction to sports psychol ogy (T) (2 Cr) SEC: Hygien e and Sanitati on (T) (2 Cr)	AEC: Modern English Language (T) (2 Cr) VEC: Soft Skill Developm ent (T) (2 Cr) IKS: History of Sports (T) (2cr)	CC: Foundatio n of Physical Education and Sports (2cr)		44	UG Certifi cate 40-44
	Cr	6	0	0	4	4	6	2	22		
Le vel 4.5	SEM 2	Introduc tion to sports technolo gy (T) (4 Cr)		Anato my and Physi ology	Sports Nutriti on I (T) (2 Cr) OR	VC: Micros oft Office Tools Practica	AEC: Yoga and Fitness (T) (2 Cr) VEC:	CC: First Aid & Treatment (2 Cr)	22		40-44

	Introduc		II	Gen	(P)	Inclusive	- Alson - Also			
	tion to		(T)	der	(2cr)	Athletics				
	Sports		(2 Cr)	Derivat		(T)		amena (ali cale)	a a company	
	Sociolog			ion in	SEC:	(2 Cr)				
	У			Sports	Theory					
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	(2 Cr)			(2	Athletic					
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Cr	6	0	2	4	. 4	4	2			
Cum.	12	0	2	8	8	10	4			44
Cr.		,	_	-	,					

Exit Option: Award of UG Certificate in Major with 40- 44 Credits and an additional 4 credit core NSQF course / Internship OR Continue with Major and Minor

R:	GU.	A	- 5	30	В

					<u> </u>	SECOND	YEAR				
Lev el	Sem	M aj or Manda tory	E l e c t i v e	Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cu m. Cr. / Se m,	Cum ulat ive	
Professional American	SFM 3	Motor Skill & Coordin ation (T) (4 Cr) Sports Injury and Rehabilit ation (T) (4 Cr)	S	Basics of Biom echani cs (T) (4 Cr)	Sports Nutritio n II (T) (2 Cr) OR Sports Performa nce Testing and Assessme nt (P) (2 Cr)	VC: Biomech anics Practical (P) (2 Cr)	AEC: Communi cation Skills (T) (2 Cr)	FP: Field Project -I (P) (2 Cr) CC: Personality development (P) (2 Cr)	22	Approximate and approximate an	
	Cr	8	0	4	2	2	2	4		88	UG Diplo
Le vel 5.0	SEM 4	Physiolo gy of Exercise (T) (4 Cr) Fundam entals Sports Training (T) (4 Cr)		Exerci se Psych ology (T) (4 Cr)	Introduction to Research Statistics (T) (2 Cr) Or Introduction of Financial Accounting (T) (2 Cr)	SEC: Anthrop ometry (T) (2 Cr)	AEC: Sports Entrepren eurship (T) (2 Cr)	CEP: Grassroot Development (P) (2 Cr) CC: Game Theory application in Sports (P) (2 Cr)	22		80 - 88 -
	Cr Total	. 8	0	4		2	2	4			
	Cr in 2nd	16	0	8	4	4	4	8			44

Year		- 10 m		111111 111111111111 1111111111111111		energia de la compania del compania de la compania del compania de la compania del la compania de la compania dela compania del la compania de la compania del la compania de la compania de la compania	7.11011.110 0000 ,000.	(M) (M) (1) (M) (M) (M)	7554400046600	on the contract of the contrac
			11/2000/01/0		 339-030-030-03					
Cum. Cr.	28	0		12	 	12	n en communication de	88	HIMITO HOME OF THE	я этійніні

Exit Option: Award of UG Diploma in Major and Minor with 8--88 Cr and an additional 4 credit core NSQF course / Internship OR Continue with Major and Minor

R:	GU A	\	530	C

					THIRE	YEAR .					
Leve I	Se m est er	Majo r Mand atory	Elective s	Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cu m. Cr./ Sem	Cumu la tive	
	SF. M	Muscul ar Skeleta l Biome chanics (T) (4cr) Introduction to Kinesi ology (T) (4CR)	Introduct Strength Conditio ning (T) (4cr) Sports Biomecha nics and Movemen t Analysis (T) (4cr)	Sports Medicine (T) (4cr)		Ergonomics and doping in sports. (T) (4CR)		CEP: Anthrop ometry Practica 1 (P) (2 Cr)	222	Section 1 and 1 an	BSS Degre e 120 - 132
	Cr	8	4	4	0	4	0	2	Authorities (1)	132	1135 (1) Cauc
Le vel 3,5	SE M 6	Strengt h and conditi oning (T) (4 Cr) Exercis e Scienc es	Advanced Strength and Condition ing (T) (4 Cr) or	Sports Training & Coaching (T) (4cr)				Move ment analys is (P) (4 Cr)			
		(T) (4Cr) Exercise Program Ming and Practi	Performa nce Analysis and Player Monitorin g (T) (4 Cr)								
	C	Practices (T) (2 Cr)	4	4	0						
	Cr To Foliation on in	13	8	8	0	4	0	6	2 (19) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1		44
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Exit Option: Award of UG Degree in Major with 120 -132 Cr OR Continue with Major and Minor

R: <u>GUA - 530 D</u>

	FOURTH YEAR													
Ley	Semes	Major				VSC, SEC	AEC,	OJT, FP,	Cum.	Cumu				
el	ter	Mandatory	Electives	Mino	OE	(VSEC)	VEC,	CEP,	Cr./	lative				
	_			r			IKS	CC, RP	Sem.					
		Introduction to	a											
		Neuro Mechanics	Social Support	Resear										
		(T)	Support	ch										
477 (1915)		(2 Cr)	rehabilitati	Metho					Andrew Contraction					
		Kinesiology	(T) (4 Cr)	ds (4Cr)										
	SEM	(T) (4 Cr)	(, 0,)	(401)					2					
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	•	Project-I							U					
		(P) (4 Cr)	Sustainabi lity in Sports											
arcannena a	1000 1000 1700 1700	Emerging	Sports (T)											
Le		Emerging Trends in Sports Technology	(4 Cr)								a sa ta dinamana anta a			
ve		Technology (P)												
6.		(2 Cr)									4			
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		Sports Coaching and Leadership									helo			
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		(T)	Psychology (T)								(Но			
		(4 Cr)	(T) (4Cr)			,		Industry			nors			
		LAB: Sports						Internsh)			
	SEM	Psychology						ip	2		degr			
	- 8	LAB: Sports Psychology (P) (2 Cr)	Or					Report	0		ee			
				, i			^	(4 Cr)						
		Project-	CSR in Sports											
		(P) (4 Cr)	Sports											
			(T) (4 Cr)		-									
		Emerging Trends in Sports Science	(4 CI)											
		Sports Science												
		(P)			:									
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Dr. Keyurkumar M. Nayak,

Director, UM-GICED Prof.(Dr.) Anil Kumar Singh

Dean.

Faculty of Interdisciplinary Studies

# Four Year UG Honors Degree in Major and Minor with 174 credits

Sem 1

Subject Code	Core Subject	Ass	sessment Pat	tern	Teaching	Hours	1 Total Hours  60 30 30 30 30 30 30 30 30 30				
Couc	Topics	Internal Marks 50	External Marks 50	Total Marks (CA)	Theory Hours	Practical hours		Total Credits			
	****		79. AT * 79. AT	50/100							
Daga1	1		Major Ma	andatory							
BSSS1 MJP1	Anatomy and Physiology I	50	50	100	60		60	4			
BSSS1 MJP2	Basics of Biochemistry	25	25	50	30	_	30	2			
		page grown and the state of the	Open Elec	tive (OE)			T				
BSSS1P 3A	Sports Pharmacy	25	25.	50	30		30	2			
			0	R							
BSSS1P 3B	Foundation of Nutrition	. 25	25	50	30	-	30	2			
BSSS1P 4A	Olympic movements in sports	25	25	50	30		30	2			
•			O	R							
BSSS1P 4B	Introduction to Sports Management	25	25	50	30	-	30	2			
	,	js-	Vocational C	Courses (VC	)			1			
BSSS1P 5	Introduction to sports psychology	25	25	50	30		30	2			
		Skill	Enhancemen	nt Courses (	SEC)		·				
BSSS1P 6	Hygiene and Sanitation	25	25	50	30		30	2			
		Abilit	y Enhanceme	ent Courses	(AEC)	\$		<b>,</b>			
BSSS1P 7	Modern English Language	25	25	50	30	-	30	2			
		Val	lue Educatio	a Course (V	EC)						
BSSS1P 8	Soft Skill Development	25	25	50	30	_	30	2			
		Ind	ian Knowled	ge System (	IKS)	<del></del>	T	- ₁			
BSSS1P 9	History of Sports	25	25	50	30	_	30	2			
		C	o-curricular	Courses (C	<b>C</b> )						
BSSS1P 10	Foundation of Physical Education and Sports	50	_	50	10	20	30	2			
	Total	300	250	550	310	20	330	22			

			Sen	12	I	T		
Subject Code	Core Subject	As	sessment Pat	tern	Те	aching Hou	rs	
	Topics	Internal Marks 50	External Marks 50	Total Marks (CA) 50/100	Theory Hours	Practical hours	Total Hours	Total Credits
	<b></b>	· · · · · · · · · · · · · · · · · · ·	Major Ma				l .	
BSSS2 MJP11	Introduction to sports technology (T)	50	50	100	60		60	4
BSSS2 MJP12	Introduction to Sports Sociology	25	25	50	30		30	2
			Mir	ıor				
BSSS2 MRP13	Anatomy and . Physiology II	25	25	50	30		30	2
Daggan	<del></del>	<b>T</b>	Open Elec	tive (OE)	T		1	
BSSS2P 14A	Sports Nutrition I	25	25	50	30	_	30	2
			O	R				
BSSS2P 14B	Gender Derivation in Sports	25	25	50	30		30	2
BSSS2P 15A	Sports Law	25	25	50	30		30	2
			O)	R	A		<u> </u>	
BSSS2P 15B	Gym Logistics	25	25	50	30		30	2
			Vocational C	ourses (VC)	)		<u> </u>	
BSSS2P	Microsoft Office Tools	.25	25	50	10	20	30	2
720005	T	Skill	Enhancemer	it Courses (	SEC)			
BSSS2P 17	Theory of Athletics	25	25	50	30	_	30	2
nagaan	<u> </u>	Ability	y Enhanceme	ent Courses	(AEC)	<del></del>		
BSSS2P 18.	Yoga and Fitness	25	25	50	30		30	2
		Val	ue Educatior	Course (V	EC)	1	1	
BSSS2 P19	Inclusive Athletics	25	25	50	30		30	2
		C	o-curricular	Courses (Co	C)			
BSSS2P 20	First Aid & Treatment	50	:	50	30		30	2
	Total	300	250	550	310	20	330	22

			Sen	n 3				
Subject Code	Core Subject	As	sessment Pat	ttern	Tea	aching Hou	rș	
	Topics	Internal Marks 50	External Marks 50	Total Marks	Theory Hours	Practical hours	Total Hours	Total Credits
				(CA) 50/100				
			Major M	andatory				
BSSS3 MJP21	Motor Skill & Coordination	50	50	100	60		60	4
BSSS3 MJP22	Sports Injury and Rehabilitation	50	50	100	60		60	4
	Minor							
BSSS3 MRP23	Basics of Biomechanics	50	50	100	60		60	4
			Open Elec	ctive (OE)				
BSSS3P 24A	Sports Nutrition II	25	25	50	30	_	30	2
			C	)r				
BSSS3P 24B	Sports Performance & Testing	25	25	50	30	_	30	2
			Vocational C	Courses (VC)	)			
BSSS3P 25	Biomechanics Practical	50	-	50	-	30	30	2
		Abilit	y Enhancem	ent Courses	(AEC)			*
BSSS3P 26	Communication Skills	25	25	50	30	_	30	2
			Field Pro	ject (FP)				
BSSS3P 27	Field Project	50	_	50	30	_	30	2
		C	o-curricular	Courses (C	C)			
BSSS3P 28	Personality development	50	_	50	10	20	30	2
	Total	350	200	550	280	50	330	22

			Sei	n 4				
Subject Code	Core Subject	Assessm ent Pattern	Teaching Hours		-			
	Topics	Internal Marks 50	External Marks 50	Total Marks	Theory Hours	Practical hours	Total Hours	Total Credits
				(CA) 50/100				
			Major M	andatory				
BSSS4 MJP29	Physiology of Exercise	50	50	100	60	_	60	4
BSSS4 MJP30	Fundamentals Sports Training	50	50	100	60		60	4
		•	Mi	nor		·	<u> </u>	<u> </u>
BSSS4 MRP31	Exercise Psychology	50	50	100	60	_	60	4
			Open Elec	ctive (OE)				
BSSS4P 32 A	Introduction to Research Statistics	25	25	50	30	_	30	2
		I	C	)r	1	1	J	
BSSS4P 32 B	Introduction to Financial Accounting	25	25	50	30	_	30	2
		Skill	Enhanceme	nt Courses (	SEC)			
BSSS4P 33	Anthropometry	25	25	50	30	_	30	2
*		Abilit	y Enhancem	ent Courses	(AEC)		•	
BSSS4P 34	Sports Entrepreneurship	25	25	50	30	,	30	2
		Curricu	lum Enhanc	ement Cour	sé (CEP)			1
BSSS4P 35	Grassroot Development	50	_	50	_	60	60	2
		C	o-curricular	Courses (C	C)			
BSSS4P 36	Game Theory application in Sports	50		50	60	-	60	2
	Total	325	225	550	330	60	330	22

			Ser	n 5			1504	
Subject Code	Core Subject	Assessm ent Pattern	Teaching Hours					
	Topics	Internal Marks 50	External Marks 50	Total Marks	Theory Hours	Practical hours	Total Hours	Total Credits
				(CA) 50/100				
			Major M	andatory				
BSSS5 MJP37	Muscular Skeletal Biomechanics	50	. 50	100	60	_	60	4
BSSS5 MJP38	Introduction to Kinesiology	50	50	100	60	_	60	4
			Electi	ve (E)				
BSSS5P 39 A	Sports Biomechanics and Movement Analysis	50	50	100	60	_	60	4
			C	)r				
BSSS5P 39 B	Sports Biomechanics and Movement Analysis	50	50	100	60	_	60	4
			Mi	nor	,			
BSSS5 MRP40	Sports Medicine	50	50	100	60	_	60	4
,			Vocational C	ourses (VC	)			· · · · · · · · · · · · · · · · · · ·
BSSS5P 41	Ergonomics and doping in sports	50	50	100	60	_	,60 3	4
		Commu	nity Engagen	nent Progra	ım (CEP)			,
BSSS5P 42	Anthropometry Practical	50		50		30	30	2
	Total	300	250	550	300	30	330	22

				Sem (	6				
Subject - Code	Core Subject	Asses: Pati	I		ching ours				
	Topics	Internal Marks 50	Extern Marks		Total Marks	Theory Hours	Practical hours	Total Hours	Total Credits
					(CA) 50/100				
tildet linke (1/2000)			Majo	r Man	datory			<u> </u>	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
BSSS6 MJP43	Strength and conditioning	50	50		100	60		60	4
BSSS6 MJP44	Exercise Sciences	50	50		100	60	ři-nu	60	4
BSSS6 MJP45	Exercise Programming and Practices	25	25		50	30		30	2
	W		, ]	Electiv	'es				
BSSS6P 46 A	Performance Analysis and Player Monitoring	50	50		100	60		60	4
			1	Or				error stores or tale	
BSSS6P 46 B	Advances Strength and Conditioning	50	50		100	60	samu .	60	4
77 Y 4 C 4 C 4 C 4 C 4 C 4 C 4 C 4 C 4 C 4				Mino	r				<u> </u>
<b>BS</b> SS6 <b>MRP47</b>	Sports Training & Coaching	50	50		100	60		60	4
			On the	e Job 7	<b>Fraining</b>				
BSSS6P 48	Movement Analysis	100			100		60	60	4
	Total	325	225		550	270	60	330	22

			Sei	n 7				
Subject Code	Core Subject	Assessm ent Pattern	Teaching Hours					•
	Topics	Internal Marks 50	External Marks 50	Total Marks	Theory Hours	Practical hours	Total Hours	Total Credits
				(CA) 50/100				
			Major M	andatory				
BSSS7 MJP49	Introduction to Neuro Mechanics	25	25	50	30	_	30	2
BSSS7 MJP50	Kinesiology	50	. 50	100	60		60	4
BSSS7 MJP51	Project-I	100	-	100	-	60	60	4
BSS7 MJP52	Emerging Trends in Sports Technology	25	25	50	30	_	30	2
			Electi	ve (E)				
BSSS7P 53 A	Social Support & Rehabilitation	50	50	100	60		60	4
			C	)r				,
BSSS7P 53 B	Sustainability in Sports	50	50	100	60	_	60	4
			Research M	lethodology		_		
BSSS7P 54	Research Methods	50	50	100	60	_	60	4
	Total	300	200	500	240	60	300	20

			Ser	u 8				
Subject Code	Core Subject	Assessm ent Pattern	Teaching Hours			*		
	Topics	Internal Marks 50	External Marks 50	Total Marks	Theory Hours	Practical hours	Total Hours	Total Credits
				(CA) 50/100				
			Major M	andatory				
BSSS8 MJP55	Sports Coaching Leadership	50	50	100	60	_	60	4
BSSSM JP56	Lab: Sports Psychology	50	-	50	_	60	60	2
BSSS8 MJP57	Project-II	100		100	-	60	60	4
BSSS8 MJP58	Emerging Trends in Sports Science	50	50	100	60	_	60	4
			Electi	ve (E)				
BSSS8P 59 A	Sports Psychology	50	50	100	60		60	4
			C	)r			, , , , , , , , , , , , , , , , , , , ,	
BSSS8P 59 B	CSR in Sports	50	50	100	60		60	4
	On Job Training							
BSSS7P 60	Industry Internship report	100		100	d e	60	60	4 .
				n Project				
	Total	400	150	550	180	180	360	22

# Sem.-I

# **FYBSS**

## Semester I

# 1. Anatomy and Physiology

Sr. No.	Module	Total Hours
1	Introduction to Anatomy and Physiology	8
	1.1: Terminology: Bone, Joint Muscle, Fascia, Ligaments, aponeurosis, retinacula, Raphel	8
	& Bursae	0
	1.2: Anatomical position, and Planes of the body	
	1.3: Introduction to physiology, body compartments, extracellular fluid, intracellular fluid,	
	measurement of fluid volume, homeostasis, endocrine and exocrine glands	10
2	Cell and Tissue	10
	2.1: Cell as the living unit of the body	
	2.2: Cell-Membrane & Organelles	
	2.3: Prokaryotic and eukaryotic cells	
	2.4: Cell cycle: Mitosis, and Meiosis	0
	2.5: Tissue - Epithelial, Connective. Fibrous. Cartilage, Bone, Muscular	8
3	Transportation	8
	3.1: Osmosis: Meaning, osmosis across selectively permeable membranes – net diffusion	1
	of water	
	3.2: Diffusion: diffusion through cell membrane, diffusion protein channel, gating of	
~	channels	
	3.3: Passive transport: active transport, co transport, counter transport, exocytosis,	
	endocytosis, cell membrane transport	
4	Cardiovascular and Respiratory System	10
	4.1: Heart, structure of heart, flow of blood, cardiac cycle, cardiac output	
	4.2: Respiratory organs, respiratory systems, mechanism of breathing, respiratory	
	volumes and capacities, exchange of gas, transport of oxygen, transport of carbon dioxide,	
	regulation of respiration, disorder associated with respiration (in brief): asthma, hypoxia,	
	emphysema	
5	Digestive and Excretory System	8
	5.1: Digestion by saliva, digestion in stomach, small intestine and large intestine,	
	mechanism of glucose uptake forms the gut	
	5.2: Human excretory system, urine formation, function of tubules, mechanism if	
	concentration of filtration, regulation of kidney function, micturition, role of other organs	
	in excretion	

# 2. BASICS OF BIOCHEMISTRY

Sr. No.	Module	Total Hours
	Membrane Structure, Enzymes and Biological Oxidation 1.1: Membrane Structure and Function 1.2: Transport of metabolites: diffusion, passive and active transport 1.3: Definition and classification of enzymes, Factors affecting activity of enzyme. 1.4: Co enzymes, co factors	8
2	1.5: Oxidative phosphorylation: ETC chain  Membrane Structure, Enzymes and Biological Oxidation  Carbohydrate Chemistry and Metabolism 2.1: Importance, Classification of Carbohydrates 2.2: Mctabolism of Carbohydrates: Glycolysis, Citric Acid Cycle, Glycogenesis, Glycogenolysis, HMP shunt	8
3	Lipid Chemistry and Metabolism 3.1: Importance, Classification of Lipids 3.2: Metabolism of lipids: Oxidation of fatty acids, fatty acid synthesis, metabolism of unsaturated fatty acids, Metabolism of triglycerides, chain elongation and desaturase system. 3.3: Types of lipoproteins and their functions	8
4	Protein Chemistry and Metabolism 4.1: Structure of Protein: primary, secondary, tertiary, and quaternary 4.2: Function of proteins 4.3: Classification of Amino Acids 4.4: General Reactions: Transamination, deamination, and decarboxylation 4.5: Urea Cycle	6

# 3. Sports Pharmacy

Sr. No.	Module	Total Hours
1	Introduction 1.1: Meaning & definition 1.2: Role of clinical pharmacists 1.3: Pharmaceutical care	8
2	Pharmacology 2.1: General concepts in Pharmacology - Drug forms and routes of drug administration - Basic principles of pharmacokinetics - Basic principles of pharmacodynamics - Adverse effects of drugs	8

3	Pharmacist & Sports practices	8
	3.1: Relationship lab exams & analysis	
	3.2: Common Pharmaceutical problems	_
	3.3: Pharmacotherapy	
	3.4: Improve performance	
4	Type of Drugs	6
	4.1: Anti-Anaemic	
	4.2: Anti-Coagulants	
	4.3: Thrombolytic Agents	
	4.4: CV Drugs, Cardiac Glycosides, Anti-Anginal, Peripheral Vasodilators, Anti-HTN,	
	Anti-Arrhythmic, Anti-Hyperlipidaemic and Hypocholesterolaemia, Drugs Affecting	
1	Respiratory System and CNS, Hormones, Insulin, Steroids, Diuretics.	

# 4. FOUNDATION OF NUTRITION

Sr.	Module	Total
No.		Hours
1	Introduction	8
	Concept of nutrition	
	Definition of food, nutrition, health, Nutraceuticals and Nutrigenomics. Dimension of	
	health and function of food- Physical, social and mental health. Food guide – Basic food groups, my plate	
	Signs of good and poor nutrition	
2	Functions of food	8
14	The Main Energy Food - Fat: An Important Energy Source during Exercise - Protein: The Tissue Builder - Vitamins: The Organic Regulators - Minerals: The Inorganic Regulators	
3	Macro nutrients	8
1	Classification, digestion, absorption, metabolism, sources, functions, RDA, deficiency,	
	and excess (in brief)	
	Carbohydrates	
	Protein	
	Fat ;	
4	Energy .	6
	Fuel and energy, energy yielding food factors, the energy value of food, energy units,	
	determination of energy value using bomb calorimeter, direct and indirect calorimeter,	
	basal metabolism, factors affecting BMR, BEE, recommended allowances for calories	

# 5. INTRODUCTION TO SPORTS PSYCHOLOGY

Sr.	Module	Total
No.		Hours
1	Introduction to Sport Psychology	8
	1.1: Meaning and scope of sports psychology	
	1.2: Divisions of sport psychology	
	1.3: Place of sports psychology in sports science hierarchy	
	1.4: Importance of Sports Psychology	
	1.5: Meaning, mechanism and stages of sensory perceptual process	
	1.6: Classification of senses and sensory perceptual process	
	1.7: Factors in perception	
	1.8: Implication of sensory - perceptual process in exercise and sport	
2	Psycho - physiological Determinants of Under recovery	8
	2.1: Over training	
	2.2: Recovery - Stress balance and psych bio social states monitoring of road cyclists	
	2.3: Psycho physiological features of a player	
	2.4: Managing the training load of overreached athletes's insights from the detraining and	
	tapering literature	
	2.5: Risk of injury in tea sorts	
	2.6: Health problems in athletes.	
	2.7: Quantification of mental training and competition loads in endurance sports: A keyto	
	performance	
3	Performance of athletes	8
	3.1: The role of sleep in maximizing performance in elite athletes	
	3.2: Sleep, dream and athletic performance	
	3.3: Domestic and international travel: implications for performance in team - sport	
	athletes.	
4	Recovery for Sports Performance	6
	4.1: Mental Fatigue	
	4.2: Performance of an athlete in extreme situation	
	4.3: Psychological relaxation techniques to endure sports.	
	4.4: Sports Performance: A concluding summary.	

## 6. HYGIENE AND SANITIZATION

Sr.	Module	Total
No.		Hours
1	Introduction to Hygiene	8
	1.1: What is hygiene?, Common practices for hygiene	
	1.2: What is personal hygiene.	
2	Introduction to Sanitization	8
	2.1: What is Sanitation?	
	2.2: Safe collection, transportation, treatment and disposal of wastes.	
3	Personal Hygiene and its importance	8
	3.1: Meaning of personal hygiene	
1	3.2: How to build hygiene habits	
	3.3: Essentials of personal hygiene	

4	Regulatory practices	4
	4.1: Sanitation regulatory practices	
	4.2: Laws for hygiene & Sanitation	
	4.3: Occupational safety & health hazards	
5	Environmental Hygiene	2
	5.1: We and our Environment	
	5.2: Need of water in the body	
	5.3: Use of toilets	
	5.4: Cleaning up after meals	

# 6. Modern English Language

Sr. No.	Module	Total Hours
1	English Grammar	8
_	1.1:Applied Grammar	O
	1.2: Correct usage	
	1.3: The structure of sentences,	
	1.4:The structure of paragraphs	
	1.5: Enlargements of Vocabulary	
2	Writing	8
	2.1: Written Composition:	
	2.2: Precise writing and summarizing, Writing of bibliography	
	• Resume Writing	
	Letter writing and e-Correspondence	
	• Note-Making	
	• Report Writing	
	• Expansion of Proverbs and Ideas	
	• Description of Pictures.	
3	Communication Skills	8
	3.1: The ability to present ideas clearly, effectively and confidently, in both oral and	
	written form.	
	3.2: The ability to practice active listening skills and provide feedback.	
	3.3: The ability to negotiate and reach an agreement	,
	3.4: The ability to communicate with others from different cultures	
	3.5: The ability to develop interpersonal communication skills.	
	3.6: The ability to use non-verbal skills.	
4	Teamwork	6
	4.1; The ability to build to good relation interacts with others and work effectively with	
	them to achieve the same objectives.	
	4.2: The ability to understand and interchange roles between that of a team leader and a	
	team member.	
	4.3: The ability to recognize and respect the attitude, behavior and beliefs of others.	
	4.4: The ability to contribute towards the planning and coordination of the team's efforts	
	is responsible for the group's decisions.	

# 7. SOFT SKILL DEVELOPMENT

Sr.	Module	Total
No.		Hours
1	Personal Skills	8
	1.1: Knowing oneself - confidence building	
	1.2: Knowing personal strengths	
	1.3: Personal Values- Stress and Time management	
2	Social Skills	6
	2.1: Appropriate and contextual use of language	
	2.2: Non - verbal communication	
	2.3: Interpersonal Skills and Problem Solving	
3	Personality Development	8
,	3.1: Personal grooming and business etiquettes	
	3.2: Corporate etiquette, social etiquette and telephone etiquette	
	3.3: Role play and body language	
4	Presentation skills	6
	Group discussion- mock Group Discussion using video recording - public speaking	
5	Professional skills	2
	Organisational skills- team work- business and technical correspondence- job oriented	
	skills-professional etiquettes	

# 8. History of Sports

Sr.	Module	Total
No.		Hours
1	Definition, Meaning & Scope of Physical Education	8
•	1.1: Aims & Objectives of Physical Education	•
	1.2: Relationship of Physical Education & Recreation	ļ
	1.3: Contribution of Physical Education towards general education	
2	History of Physical Education	8
	2.1: History of Physical Education in Ancient Greek, Comparative Study of	
	Spartan Athenian Education.	
	2.2: The high and development of Olympic Games.	
	2.3: Development of Asian Games	
3	Physical Education in Germany, Sweden & Denmark	8
	3.1: Physical Education in Germany, Sweden & Denmark (Emphasis only on	
	contribution of Basedaw, Guts-Muths, John Speiss, Machtegal, Long).	
	3.2: Present status of Physical Education & Recreation in Russia and Japan.	
	3.3: History of Physical Education in India (Pre-post-Independence Era).	
4	Critical Appreciation	6
	4.1: Haryana Sports Department	
	4.2: IOC Policies of developing of Physical Education & Sports	
1	4.3: Modern Olympics	
	4.4: South Asian Federation Games	
	4.5: Sports Authority of India	

# 9. FOUNDATION OF PHYSICAL EDUCATION AND SPORTS

Sr. No.	Module	Total Hours
1	Introduction to Physical Education The Nature of Physical Education, Definition of Physical Education, Mission Statement for Physical Education, The Dimensions of Physical Education Rationale for Physical Education, Guiding Principles for Physical Education, The Contribution of Physical Education to the Essential, Graduation Learnings	4
2	The Instructional Environment The Instructional Environment in Physical Education, Instructional Strategies in Physical Education, The Learner Within Physical Education, Young Children, Young Adolescents and Older Youth, Children with Special Needs, The Implementation of a Personal-Global Physical Education Program, The Role of the Physical Education Specialist, The Role of Non-Specialist Physical Education Teachers, The Role of School Administrative Staff, The Role of the Teaching Staff, The Role of the Non-Teaching Staff, The Role of Parents/Guardians	4
3	Assessment in Physical Education Assessment in Physical Education, Forms of Assessment, The Teaching - Learning - Evaluation Process, Assessing Student Performance, Adjusting the Criteria for Student Assessment, adopting a Futuristic Strategy for Student Assessment, Assessment Instruments and Techniques, Reporting Progress	20
4	Self-Assessment Teacher Self-Assessment, Self-Assessment of Critical/Reflective Qualities, Self-Assessment of Technical Qualities, Curriculum Improvement, Basic Components of Curriculum - Outcomes, Activities and Resources, Four Dimensions in Evaluation of Program Development	2

# Sem.-II

# Semester II

# 10. INTRODUCTION TO SPORTS TECHNOLOGY

Sr. No.	Module	Total Hours
1	Historic overview of sports equipment	8
	History of balls Athletic shoes	
	Hockey stick	
2	The double relationship between technology and sport development	10
	1 What is technology?	
	2 Enhancement: which technologies are improved, and how?	
	3 The integration of 'foreign' technologies into sporting practice	·
	4 The actor-network of doping	
	5 The integration of science and medicine into sports training	8
	6 Technologies for judging, umpiring and refereeing.	
	7 Translating performances: the production of sports media broadcast	
3	Evolution in Sports	8
	Evolution of:	
	Clothing and Protective gear in sports	8
	Footwear in sports	
	Playing Surfaces in sports	
4	Technologies used	10
	Team Sports technique	
	Large equipment in sports	
	Electronic timing systems in sports	
5	Media in sports	8
	History of media in sports	
	Evolution of media in sports	

# 11. Business Law

Sr. No.	Module	Total Hours
1	Introduction to Research	8
*	1.1: Meaning of research	
	1.2: Objectives of research	
	1.3: Types of research	
	a) Descriptive v/s Analytical research	
	b) Applied v/s Fundamental research	
	c) Quantitative v/s Qualitative research	
	d) Conceptual v/s Empirical research	
	e) other types of research: time based, field or lab setting, clinical or diagnostic, historical,	
	decision or operational research.	
	1.4: Significance of research, FINER criteria for research: Feasibility, Interest, Novel,	
	Ethical, Relevant	
	1.5: Research Process; Formulating the research problem, Extensive literature survey,	
	Developing the hypothesis, Preparing the research design, Determining the sample design,	
	Execution of the project, Collecting the data, Analysis of data, Hypothesis testing,	
	Generalization and interpretation and Preparing the report/ thesis/ presenting the data.	
2	Scales and Variables	8
	2.1: Measurement Scales: nominal, ordinal, interval, ration scales	
	2.2: Variables: Independent, dependent, intermediate and confounding	
	2.3: Generating research hypothesis and research objectives.	
	2.4: Reliability and its types	
	2.5: Validity and its types, threats to internal and external validity	
3	Research Design	4
	3.1: Meaning of research design	
	3.2 Need for research design	
	3.3: Features of a good research design	
	3.4: Types of experimental design	
	a) True experimental design and its types	
	b) Quasi experimental design and its types	
4	Sampling	6
	4.1: Meaning of population, sampling frame, census and sample survey, difference	
	between population and sample	
	4.2: Sampling Methods: Probability and Non – probability sampling	
	4.3: Bias and error in sampling: Random and Systematic error	
5	Collection of data	4
	5. 1: Guidelines for construction of questionnaire	
	5.2: Guidelines for successful interviewing	
	5.3: Collection of primary and secondary data	
	5.4: Data collection by observation method, interview method, self-administered	
	questionnaire and quantitative v/s qualitative method.	

12. Sports Nutrition

Sr.	Module	Total
No.		Hours
1	Micronutrients	8
	Macrominerals- Calcium, Phosphorus and magnesium: Functions, absorption, RDA.	
	Micro Minerals- Iron, Zinc, Fluorine and Iodine: function, absorption, RDA, sources and	
	deficiency.	
	Vitamins- Fat-soluble Vitamins (A, D, E & K) Function, RDA, sources and deficiency and	
	excess. Water soluble vitamins: Thiamin, Riboflavin, Niacin, B12, Folic acid, Biotin and	
	Vitamin C: functions, RDA, food sources, deficiencies and excess	
2	Energy Systems	8
	Aerobic System	
	Anaerobic System	
3	Water and electrolyte Balance	8
	Fluid and fluid balance	
	Daily Fluid Needs and Fluid Replacement	
	Electrolytes: Sodium, Potassium	
	Fluid Requirement in older athletes	
4	Sports Drink	6
	Meaning	
	Difference between sports drink and energy drink	
	Types of sports drink	

# 13. Sports Law

Sr.	Module	Total
No.		Hours
1	Introduction to Sports Law	8
	What is Sports Law?	
	Sources of Sports law	
	Understanding the governance of Sports:	
	Roles and functions of Sports Governing Bodies	
	A transformational approach to Sports	
	Governance- an understanding of the Lodha Committee Report	
2	Player Attributes and Player Appearances	8
	Consideration	
	Player Morality	
	Player Performance and Linkage to Renewal /Termination	
	Non- Compete Provisions Conflict with Players Playing Contracts	
3	What is Sponsorship?	8
	Kinds of Sponsorship	
	Key terms in a Sponsorship Agreement	
	Key contractual and legal issues in Sponsorship Agreements	
4	Other Provisions	6
	Protection of Intellectual Property Rights	
	Contractual Coordination Mechanisms	
	Termination & Consequences of	
	Termination and Boilerplate Provisions	

# 14.THEORY OF ATHLETICS

Sr.	Module	Total
No.		Hours
1	History of athletics in India	8
	Organization & administration of College athletic meet	
	Teaching & training of athlete (Track & Events)	
	History of IAAF in India.	
2	Dimension, Rules & Regulations	8
	400, 800 meters, 10000 meters races	To all and the second s
	- Duties of technical officials in athletic meet.	The state of the s
	- Equipment and their specifications used in various events of track & field.	
3	Dimension, rules & regulations of track	8
	(i) Hurdle (ii) High Jump and Shotput	
	- Duties of technical officials in athletic meet.	
	- Equipment and their specifications used in various events of track & field.	
4	Fundamentals of various events	6
	- Shotput -Holding, Placement of shot, initial stance, Glide/rotation, Delivery	
	Stance, Delivery action, reverse.	
	- Hurdle-approach, take off, action of lead leg & trailing leg, flight, landing,	
	stride in between hurdles.	
	- High Jump- approach, run, take off, bar clearance, landing in different	
****	techniques	

# 15.YOGA AND FITNESS

Sr.	Module	Total
No.		Hours
1	Foundations of Yoga	8
	□History, Evolution of Yoga and Schools of Yoga	
	□Basic Yoga Texts: Principal Upanishads Bhagavad Gita, Yoga Vasishta	
	□Patanjali Yoga Sutra	
	□Hatha Yoga Texts	
	□ Allied Sciences: Anatomy and Physiology, Diet and Nutrition, General Psychology and	
	Counseling	
2	Yoga and Health	8
	☐Therapeutic Yoga – Disease Wise and Evidence based	
	□ Applications of Yoga	
	□Practical Yoga: Asana, Pranayama, Dharana Dhyana, Bandha, Mudra, Shat Kriya	
	☐ Methods of Teaching Yoga	
3	Relaxation Techniques & its Importance of Practice	8
	□Autogenic Training.	
	☐Biofeedback-Assisted Relaxation.	
	□Deep Breathing or Breathing Exercises.	
	□Guided Imagery.	

	□Progressive Relaxation	
	□Self-Hypnosis.	
4	Effectiveness of Relaxation Technique & NCCIH-Funded Research	6
	□Anxiety	
	□Asthma	
	□Depression	
	☐Heart Disease	
	□High Blood Pressure	"
	□Bowel Syndrome	
	□ Nausea	
	☐The Safety and Side Effects of Relaxation Techniques	

## 16. DIFFERENTLY ABLED ATHLETES

Sr. No.	Module	Total Hours
1	Red Flags	8
	Change in motor or sensory function.	
	New or significant change in spasticity	
	Autonomic dysreflexia (ad)	
	Fractures in a paralyzed athlete	
	Swollen limb in an athlete with a neurological impairment	
	Baclofen withdrawal syndrome (bws)	
	Fever	
2	Types of disability	8
	Amputation	
	Spinal cord injury	
	Visual impairments	
	Cerebral palsy	
	Spina bifida	
	Traumatic brain injury	
	Multiple sclerosis	
3	Common medical problems	8
	Spasticity	
	Neuropathic pain	
	Orthostatic hypotension	
	Neurogenic bowel	
	Neurogenic bladder	
	Pressure sores	
	Osteoporosis	
	Shoulder pain in the wheelchair athlete	
4 .	Winter sports injury patterns	6
	Paralympic alpine skiing	
	Ice sledge hockey	
٠	Paralympic Nordic/biathlon skiing	
	Wheelchair curling	
	Paralympic medical bag	

## 17. Yoga Education in sports

Sr.	Module	Total
No.		Hours
1	Different Types of Sports Injuries	8
	Types of Injuries	
	Soft Tissue Injury	
	· Bone Injury	
	· Joint injury	
	· Close Fracture	
	Open Fracture	
	Dislocation	
2	Special group of participants	8
	Specific issues in females, paediatric, elderly athlete including paralytic and physically	
	challenged or disabled athlete sports psychology	
3	Principles and Practices of First Aid	8
	• Principles and Practices of First Aid	
	· Assessment in First Aid	
	· Structure and Function of essential body parts	
	Basic life support (resuscitation)	
4	First aid	6
	Basic steps in safety measures safety measures for the following (i) bites of animals,	
	burns, control of bleeding, cuts and wounds. Safety for drawning artificial	*4
	respiration. Safety measures environmental hazards. Heat stroke, heat syncope,	
	wind chill and sunburn.	

## **Passing Standard**

The learners to pass a course shall have to obtain a minimum of 50% marks in aggregate for each course where the course consists of Internal Assessment and Semester End Examination. The learners shall obtain minimum of 50% marks (i.e., 25 out of 50) in the Internal Assessment and 50% marks in Semester End Examination (i.e., 25 Out of 50) separately, to pass the course and minimum of Grade E to pass a particular semester A learner will be said to have passed the course if the learner passes the Internal Assessment and Semester End Examination together.

#### PASSING PERFORMANCE GRADING:

The Performance Grading of the learner shall be on ten point scale be adopted uniformly.

## **Letter Grades and Grade Point**

Semester GPA/ Program CGPA Semester / Program	% of Marks	Alpha-Sign/Letter Grade Result	Grading Point
9.00 – 10.00	90.0 - 100	O (Outstanding)	10
8.00 - < 9.00	80.0 < 90.0	A+ (Excellent)	9
7.00 - < 8.00	70.0 < 80.0	A (Very Good)	8
6.00 - < 7.00	60.0 < 70.0	B+ (Good)	7
5.50 - < 6.00	55.0 < 60.0	B (Average)	6
5.00 - < 5.50	50.0 < 55.0	C (Pass)	5
Below 5.00	Below 50	F (Fail)	0
AB (Absent)		Absent	

NOTE: VC: Vocational Courses, SEC: Skill Enhancement Courses, AEC: Ability Enhancement Courses, VEC: Value Education Courses, VSC: Vocational Skill Course, IKS: Indian Knowledge System, OJT: On The Job Training, FP: Field Projects.

The performance grading shall be based on the aggregate performance of Internal Assessment and Semester End Examination.

The Semester Grade Point Average (SGPA) will be calculated in the following manner:  $SGPA = \sum CG / \sum C$  for a semester, where C is Credit Point and G is Grade Point for the Course/Subject.

The Cumulative Grade Point Average (CGPA) will be calculated in the following manner:  $CGPA = \Sigma CG / \Sigma C$  for all semesters taken together.

## **R.** PASSING STANDARD FOR ALL COURSES:

Passing 50% in each subject /Course separate Progressive Evaluation (PE)/Internal Evaluation and Semester-End/Final Evaluation (FE) examination.

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- A. Carry forward of marks in case of learner who fails in the Internal Assessments and/ or Semester-end examination in one or more subjects (whichever component the learner has failed although passing is on total marks).
- B. A learner who PASSES in the Internal Examination but FAILS in the Semesterend Examination of the Course shall reappear for the Semester-End Examination

- of that Course. However, his/her marks of internal examinations shall be carried over and he/she shall be entitled for grade obtained by him/her on passing.
- C. A learner who PASSES in the Semester-end Examination but FAILS in the Internal Assessment of the course shall reappear for the Internal Examination of that Course. However, his/her marks of Semester-End Examination shall be carried over and he/she shall be entitled for grade obtained by him/her on passing

## R ALLOWED TO KEEP TERMS (ATKT)

- A. A learner shall be allowed to keep term for Semester II irrespective of number of heads/courses of failure in the Semester I.
- B. A learner shall be allowed to keep term for Semester III wherever applicable if he/she passes each of Semester I and Semester II.

#### OR

- C. A learner shall be allowed to keep term for Semester III wherever applicable irrespective of number of heads/courses of failure in the Semester I & Semester II.
- D. A learner shall be allowed to keep term for Semester IV wherever applicable if he/she passes each of Semester I, Semester II and Semester III.

#### OR

- E. A learner shall be allowed to keep term for Semester IV wherever applicable irrespective of number of heads/courses of failure in the Semester II, and Semester III
- F. A learner shall be allowed to keep term for Semester V wherever applicable if he/she passes each of Semester I, Semester II, Semester III and Semester IV.

#### OR

- G. A learner shall be allowed to keep term for Semester V wherever applicable irrespective of number of heads/courses of failure in the Semester II, Semester III, and Semester IV.
- H. The result of Semester VI wherever applicable OR final semester shall be kept in abeyance until the learner passes each of Semester I, Semester II, Semester III, Semester IV, Semester V wherever applicable.

#### OR

I. A learner shall be allowed to keep term for Semester VI wherever applicable irrespective of number of heads/courses of failure in the Semester II, Semester IV and Semester V.

## University of Mumbai's

# Garware Institute of Career Education and Development Board of Studies – Committee members Course Name: Bachelor of Sports Science, Master of Sports Science and B.Sc. (Fitness)

## Date- 11th July, 2023 & Time- 4.00 pm

#### Attendance Sheet

Sr. No.	Name of the Member	Signature
Ĭ	Dr. Keyurkumar M. Nayak, Director, UM-GICED	Vimvaujak
2	Mr. Amitava Pal Associate Dean- IISM Member Secretary- BOS	and .
3	Ms. Avanti Desai -Program Head	Ivani Itesai
4	Ms. Deepa Makkad-Industry Experts	( ) we
5	Mr, Krishna Kejriwal-Alumni Alumni	online
6	Mr. Bhavesh Tanavade -Alumni Alumni	online
7	Prof. Vasanthi Kadhiravan, Professor & Head,	IN Quanto
manus de la companya	Department of Physical Education, University of Mumbai, Sports Complex, Vidyanagari, Mumbai -400 098.	Vasan a lando
8	Dr. SINKU KUMAR SINGH Professor and Head, Department of Physical Education, Swami Ramanand Teerth Marathwada University	AB
	Nanded, Maharashtra, Pin 431606	
9	Ms. Arpi Shah-Subject -Experts Subject Experts	dur
10	Ms. Mansi KangutkarExperts Subject Experts	March

Dr. Keyurkumar M. Nayak,

Director, UM-GICED Prof.(Dr.) Anil Kumar Singh

Dean,

Faculty of Interdisciplinary Studies

## Justification for Bachelor of Sports Science

2.	Necessity for starting the course  Whether the UGC has recommended the course:	The University of Mumbai's Garware Institute of Career Education & Development plans to introduce a four years full time Bachelor of Sports Science. The course aims to provide a comprehensive education that prepares individuals to excel as fitness professionals in a variety of roles, catering to the diverse needs of clients and the ever-evolving fitness industry.  Yes, UGC has recommended the course as per gazette no. DL(N)-04/0007/2003-05 dated 11th July 2014.  UGC encourages the incorporation of skill oriented and value-added courses to develop skilled manpower.
3.	Whether all the courses have commenced from the academic year 2023-2024	Yes, it would be commencing from the Academic year 2023-24 as per NEP 2020.
4.	The courses started by the University are self-financed, whether adequate number of eligible permanent faculties are available?	Yes, this course is self-financed. The expert visiting faculty from industries come to teach this course.
5.	To give details regarding the duration of the Course and is it possible to compress the course?	The duration of the course is four years (Eight Semesters). It cannot be further compressed.
6	The intake capacity of each course and no. of admissions given in the current academic year:	The intake capacity of this course is 60 students. The admission procedure is still ongoing.
7.	Opportunities of Employability/ Employment available after undertaking these courses:	Sports Management degree program trains students on necessary knowledge base & skill sets required to pursue successful careers in sports industry. Knowledge on sports finance, Sports law, Sports Analytics and so on are essentials that industry demands.

Dr. Keyurkumar M. Nayak Director,

**UM-GICED** 

Prof.(Dr.) Anil Kumar Singh

Dean,

Faculty of Interdisciplinary Studies