

As Per NEP 2020

University of Mumbai



Syllabus for Minor Vertical 2

Faculty of Interdisciplinary Studies

Board of Studies in Sports Science and Management

Second Year Programme in Minor B.Sc. (Sports Management)

Semester	III & IV	
Title of Paper	Sem.	Total Credits
I) Sports Statistics and Analytics (Theory)	III	2
II) Information Technology for Sports Management (Theory)	III	2
Title of Paper		Credits
I) Sports Operations Management (Theory)	IV	2
II) Sports Journalism (Theory)	IV	2
From the Academic Year		2025-26

Sem. - III

Syllabus
BSC (Sports Management)
(Sem.- III)

Title of Paper: - Sports Statistics and Analytics

Sr. No.	Heading	Particulars
1	Description the course:	This course provides a comprehensive introduction to the principles of sports statistics and the application of analytical techniques in the context of sports management. Students will learn how to collect, analyze, and interpret data related to performance, team dynamics, and business operations within the sports industry. By the end of the course, students will be equipped with the skills necessary to apply statistical methods to optimize performance, inform decision-making, and enhance the overall effectiveness of sports organizations.
2	Vertical :	Minor
3	Type :	Theory
4	Credit:	2 credits (1 credit = 15 Hours for work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives 1. Understand the fundamentals of sports statistics and analytics. 2. Apply statistical methods to analyze sports performance and team strategies. 3. Utilize data visualization tools to interpret sports data. 4. Explore predictive analytics in player scouting and game strategy. 5. Assess the role of big data and technology in modern sports management	

8	Course Outcomes: 1. To apply statistical techniques for analysing individual and team performance in various sports. 2. To interpret and present sports data effectively using data visualization tools and software. 3. To explore predictive models and analytics for scouting, injury prevention, and game strategy formulation. 4. To evaluate the impact of big data, AI, and emerging technologies in modern sports management and decision-making.
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9	Modules: - Sports Statistics and Analytics
	Module 1: Introduction to Sports Statistics & Statistical Methods in Sports
	1. Introduction to Sports Statistics 2. Types of sports data (player stats, team performance, game data) 3. Descriptive vs. inferential statistics in sports 4. Probability and data distributions 5. Correlation and regression analysis in sports performance 6. Hypothesis testing and decision-making in sports analytics
	Module 2: Data Collection & Management, Performance Analytics in Sports
	1. Sources of sports data (manual vs. automated tracking) 2. Wearable technology and real-time data collection 3. Data cleaning and preprocessing techniques 4. Individual player performance metrics 5. Team performance analysis and game strategy 6. Key performance indicators (KPIs) in different sports
	Module 3: Predictive Analytics & Machine Learning in Sports & Data Visualization & Decision Making
	1. Introduction to machine learning in sports analytics 2. Predicting player injuries and performance 3. AI-based scouting and talent identification 4. introduction to sports dashboards and visualization tools 5. Tableau, Power BI, and Python for sports data analytics 6. Communicating insights for coaches, managers, and stakeholders
	Module 4: Business and Financial Analytics in Sports
	1. Revenue and ticket sales analysis 2. Sponsorship valuation through analytics 3. Fan engagement and social media analytics

11	Reference Books: 1. <i>Sports Analytics: A Guide for Coaches, Managers, and Other Decision Makers</i> - Benjamin C. Alamar 2. <i>Moneyball: The Art of Winning an Unfair Game</i> - Michael Lewis 3. <i>Sports Analytics: A Data-Driven Approach to Sport Business and Management</i> - Leonard C. Johnson & Stephen L. Shapiro 4. <i>Data Science and Analytics for Sports Industry</i> - R. K. Gupta 5. <i>Statistical Modelling and Sports Business Analytics</i> - C. Alexiou & A. Economou		
12	<table border="1"> <tr> <td data-bbox="193 456 756 577">Internal Continuous Assessment: 40%</td><td data-bbox="756 456 1445 577">External, Semester End Examination 60% Individual Passing in Internal and External Examination</td></tr> </table>	Internal Continuous Assessment: 40%	External, Semester End Examination 60% Individual Passing in Internal and External Examination
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Syllabus

BSC (Sports Management) (Sem.- III)

Title of Paper: - Information Technology for Sports Management

Sr. No.	Heading	Particulars
1	Description the course:	This course explores the role of information technology (IT) in modern sports management. It emphasizes the use of various IT tools and systems that enhance the efficiency, effectiveness, and competitiveness of sports organizations. Students will learn how to leverage IT solutions for managing operations, improving fan engagement, optimizing team performance, and making data-driven decisions in the sports industry. By the end of the course, students will have practical skills in applying IT strategies to various sports management functions such as event planning, marketing, and resource management.
2	Vertical :	Minor
3	Type :	Theory
4	Credit:	2 credits (1 credit = 15 Hours for Theory work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks
7	Course Objectives By the end of this course, students should be able to: 1. Understand the role of Information Technology (IT) in sports management. 2. Learn about various software and technologies used in sports organizations. 3. Explore data management and analytics in sports business operations. 4. Assess the impact of emerging technologies such as AI, VR, and blockchain in sports. 5. Develop skills to use IT tools for enhancing sports marketing, fan engagement, and event management.	

8	Course Outcomes: Explain the role and significance of Information Technology in modern sports management. 1. Identify and utilize key software applications and technologies used by sports organizations. 2. Analyse the use of data management and analytics in optimizing sports business operations. 3. Evaluate the impact of emerging technologies such as AI, VR, and blockchain on the sports industry. Apply IT tools to improve sports marketing strategies, fan engagement, and event management processes.
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9	Modules: -
	Module 1: Introduction to IT in Sports Management & Sports Data Management & Analytics
	1. Importance of IT in modern sports management 2. Evolution of technology in sports 3. IT infrastructure in sports organizations. 4. Basics of database management for sports teams and organizations 5. Data collection, storage, and security in sports 6. Introduction to sports analytics tools (Excel, SQL, Python)
	Module 2: Digital Transformation in Sports & IT in Sports Marketing & Fan Engagement
	1. Role of cloud computing in sports operations 2. AI and machine learning applications in sports management 3. Blockchain and smart contracts in sports 4. Social media and digital marketing strategies in sports 5. CRM (Customer Relationship Management) systems in sports organizations 6. Role of mobile apps and websites in enhancing fan engagement
	Module 3: IT Technology in Sports Performance & Training & IT in Sports Event & Facility Management
	1. Wearable technology and real-time performance tracking 2. Video analysis tools for coaching and athlete development 3. Virtual Reality (VR) and Augmented Reality (AR) in sports training 4. introduction to sports dashboards and visualization tools 5. Tableau, Power BI, and Python for sports data analytics 6. Cybersecurity and risk management in sports events
	Module 4: Future Trends in Sports Technology
	1. E-sports and digital gaming industry 2. Role of AI-driven coaching and officiating 3. The impact of 5G and IoT in sports management

10	Reference Books: 6. <i>Sports Analytics: A Guide for Coaches, Managers, and Other Decision Makers</i> - Benjamin C. Alamar 7. <i>Moneyball: The Art of Winning an Unfair Game</i> - Michael Lewis 8. <i>Sports Analytics: A Data-Driven Approach to Sport Business and Management</i> - Leonard C. Johnson & Stephen L. Shapiro 9. <i>Data Science and Analytics for Sports Industry</i> - R. K. Gupta 10. <i>Statistical Modelling and Sports Business Analytics</i> - C. Alexiou & A. Economou		
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Sem. - IV

Syllabus
BSC (Sports Management)
(Sem.- IV)

Title of Paper: - Sports Operations Management

Sr. No.	Heading	Particulars
1	Description the course:	This course focuses on the principles and practices of operations management within the sports industry. It provides students with a practical and strategic understanding of how to plan, organize, and manage the day-to-day operations of sports organizations, events, and facilities. Students will explore core operational areas such as event planning, venue and facility management, logistics, scheduling, human resource coordination, health and safety regulations, and risk management. The course also highlights the use of technology and data-driven approaches in streamlining sports operations and enhancing the fan and athlete experience. By examining real-world case studies and engaging in applied projects, students will develop the skills necessary to efficiently manage sports operations in a variety of settings from local sports clubs to large-scale international events.
2	Vertical :	Minor
3	Type :	Theory
4	Credit:	2 credits (1 credit = 15 Hours for Theory work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks

7	Course Objectives: 1. Understand the key concepts of sports operations management. 2. Develop skills for planning and managing sports events and facilities. 3. Identify challenges in sports operations and propose effective solutions. 4. Apply risk management and crisis response strategies. 5. Analyze real-world case studies in sports operations.
8	Course Outcomes: 1. Understand the key concepts, principles, and scope of sports operations management. 2. Develop practical skills for effective planning, organization, and management of sports events and facilities. 3. Identify and analyze operational challenges in the sports industry and propose strategic solutions. 4. Apply risk management techniques and crisis response strategies within sports settings. 5. Evaluate real-world case studies to understand best practices and decision-making in sports operations.
9	Modules: - Sports Operations Management
	Module 1: Introduction to Sports Operations Management & Facility and Venue Management
	1. Definition and Scope of Sports Operations 2. Roles and Responsibilities of a Sports Operations Manager 3. Relationship with Other Sports Management Functions 4. Planning and Designing Sports Facilities 5. Facility Maintenance and Sustainability 6. Crowd Control and Security Management
	Module 2: Event Planning and Management & Risk Management and Compliance
	1. Event Planning Process in Sports 2. Logistics and Scheduling for Sports Events 3. Sponsorship and Stakeholder Engagement 4. Identifying and Assessing Risks in Sports Operations 5. Legal and Ethical Considerations in Sports Management 6. Emergency and Crisis Management in Sports Events
	Module 3:- Technology and Innovation in Sports Operations &
	1. Role of Technology in Facility and Event Management 2. Ticketing and Fan Engagement Technologies 3. Data Analytics for Sports Operations
	Module 4: Financial and Human Resource Management in Sports Operations

	1. Budgeting and Cost Control in Sports Operations 2. Workforce Planning and Volunteer Management 3. Leadership and Communication in Sports Organizations	
10	Reference Books: 1. "Managing Sport Facilities" - Gil Fried 2. "Sport Event Management and Marketing: A Practical Approach" - Guy Masterman 3. "Facility Planning and Design for Health, Physical Activity, Recreation, and Sport" – Thomas H. Sawyer 4. "Event Management for Sport Directories" - Christopher R. Daft 5. "The Business of Sports" - Scott R. Rosner & Kenneth L. Shropshire	
11	Internal Continuous Assessment: 40%	External, Semester End Examination 60% Individual Passing in Internal and External Examination

Syllabus
BSC (Sports Management)
(Sem.- IV)

Title of Paper: - Sports Journalism

Sr. No.	Heading	Particulars
1	Description the course:	This course introduces students to the dynamic world of sports journalism and its critical role in shaping the public's perception of sports, athletes, and events. It combines theoretical insights with practical skills to prepare students to create compelling, ethical, and engaging sports content across multiple media platforms. Students will explore the fundamentals of sports reporting, writing, interviewing, and multimedia storytelling, while also examining the evolving relationship between sports and the media industry. Emphasis will be placed on journalistic integrity, digital trends, social media, and the influence of sports journalism on branding, fan engagement, and public discourse. Through writing assignments, content creation projects, and analysis of current sports coverage, students will gain hands-on experience and a solid foundation for careers in sports media, communication, and public relations.
2	Vertical :	Minor
3	Type :	Theory
4	Credit:	2 credits (1 credit = 15 Hours for Theory work in a semester)
5	Hours Allotted :	30 Hours
6	Marks Allotted:	50 Marks

7	Course Objectives: By the end of this course, students will be able to: 1. Understand the principles and history of sports journalism. 2. Develop skills in sports reporting, writing, and storytelling. 3. Analyze the role of digital media and broadcasting in sports coverage. 4. Apply ethical and legal considerations in sports journalism. 5. Produce multimedia sports content for various platforms
8	Course Outcomes: 1. Demonstrate a clear understanding of the principles, history, and evolution of sports journalism. 2. Exhibit proficiency in sports reporting, writing, interviewing, and storytelling techniques. 3. Critically analyze the influence of digital media, social platforms, and broadcasting on sports journalism. 4. Apply ethical standards and legal frameworks relevant to sports reporting and media practices. 5. Create and publish multimedia sports content tailored for print, broadcast, and digital platforms.

9	Modules:- Sports Journalism
	Module 1: Introduction to Sports Journalism & Sports Writing and Reporting
	1. History and Evolution of Sports Journalism 2. Role of a Sports Journalist 3. Types of Sports Media (Print, TV, Radio, Digital) 4. Basics of News Writing & Inverted Pyramid Structure 5. Writing Match Reports, Features, and Opinion Pieces 6. Interview Techniques for Athletes and Coaches
	Module 2:Sports Broadcasting
	1. Fundamentals of Radio and TV Sports Coverage 2. Live Commentary and Play-by-Play Reporting 3. Role of Analysts and Pundits in Sports Media
	Module 3:- Digital Media and Sports Journalism
	1. Social Media and Fan Engagement, Blogging 2. Podcasting, and Video Journalism 3. Impact of AI and Data Analytics in Sports Reporting
	Module 4: Ethics and Legal Issues in Sports Journalism
	1. Accuracy, Fairness, and Objectivity in Reporting 2. Defamation, Copyright, and Media Laws 3. Role of Investigative Journalism in Sports

10	Reference Books: "The Sportswriter's Handbook" - Barry Wilner & Ken Daley "Sports Journalism: The State of Play" - Tom Bradshaw & Daragh Minogue "The Art of Sportswriting" - Grant Hannis "Sports Broadcasting" - Kevin Hull "The Ethics of Sports Reporting" - Edward J. Lordan	
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QUESTION PAPER PATTERN

(External and Internal)

Theory courses evaluation scheme for Second Year (UG) under NEP for theory courses with 2 credit points
total marks allotted would be 50

1. Internal Assessment: 20 Marks
2. External Assessment: 30 Marks

Nature of Examination		Bifurcation of Marks				
1. Internal Assessment for Theory Courses						
Continuous Internal Assignment	Sr.	Examination	Module	Marks	Time	Total Marks
	1	Class Test	Module 1 or on completed syllabus	10	30 Min	20
	2	Assignments / Case Study / Presentations / Projects / Group Discussion / Ind. Visit / Tutorials		10		
Note: Class Test						
1. MCQ's - 5 Marks 2. Answer in one line - 5 Marks 3. A) Long answer -10 Marks Or 3. B)Answer in Brief (2 out of 3 questions) - 10Marks						
2. External Assessment for Theory Courses						
Semester End Examination	Question No	Paper Pattern (Theory question paper pattern: All questions are compulsory)	Unit	Marks	Time	Total Marks
	Q.1	Match the Column/Fill in the Blanks/Multiple Choice Questions (12 Mark each)	From all modules	5	1 Hours	30
	Q.2	Answer in one sentence (1 mark each)	From all modules	10		
	Q.3	Short Notes (Attempt any 3 out of 6)		15		

Sd/-

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Ad-hoc Board of
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Dean
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