

Course Title	<b>Applied Sport and Exercise Medicine: real-World Practice</b>			
Course Code	<b>DLSEH511</b>			
Course type	Compulsory			
Level	Master			
Year / Semester of study	1 <sup>st</sup> /1 <sup>st</sup>			
Teacher's Name				
ECTS	10	Lectures / week		Laboratories/week
Course Purpose	The course aims to provide comprehensive knowledge and practical skills in the field of sport medicine and applied exercise, focusing on practical applications through case studies and scenarios. Through an interdisciplinary approach, it intends to equip participants in topics covered by exercise science, ethical issues, legal aspects in sport medicine, medical emergency management at sporting events and risk management in an organizational context in sport.			
Learning Outcomes	<p>Upon completion of the course, students are expected to achieve the following learning outcomes:</p> <ol style="list-style-type: none"> <li>1. Advanced understanding of fundamental principles: <ul style="list-style-type: none"> <li>• To recognize the fundamental principles of medicine, sport and applied exercise, combining critical analysis of theoretical and practical aspects.</li> </ul> </li> <li>2. Enhanced diagnostic skills: <ul style="list-style-type: none"> <li>• Develop advanced diagnostic skills for the identification and monitoring of athletes' injuries, with emphasis on indicative practice bases and the inclusion of groundbreaking research.</li> </ul> </li> <li>3. Ethical and Legal Issues in Sports and Exercise Medicine: <ul style="list-style-type: none"> <li>• Critically analyze ethical issues related to sports medicine, synthesizing various perspectives and theoretical frameworks.</li> <li>• Interpret the legal frameworks governing medical practices in sport, demonstrating the ability to manage complex legal landscapes.</li> <li>• Demonstrate an extensive understanding of ethical and legal responsibilities in the field, with an emphasis on professional integrity and accountability.</li> </ul> </li> <li>4. Emergency Management in Sports Events/Organizations: <ul style="list-style-type: none"> <li>• Identify common emergency scenarios in sports environments by developing advanced analytical and decision-making skills.</li> </ul> </li> </ol>			

	<ul style="list-style-type: none"> <li>• Assess common emergency scenarios in sports environments, developing advanced analytical and decision-making skills.</li> <li>• Develop practical skills for immediate response to potential crises, focusing on strategic planning and effective crisis management.</li> <li>• Formulate action plans and protocols for incidents in sports, incorporating best practices and innovative approaches.</li> </ul> <p>5. Cooperation and Communication:</p> <ul style="list-style-type: none"> <li>• Enhance collaboration and communication skills with other health and sport professionals, promoting interdisciplinary approaches and teamwork in a variety of settings.</li> </ul> <p>6. Crisis Management and Leadership:</p> <ul style="list-style-type: none"> <li>• Develop advanced skills in crisis management and leadership in sports settings and events, with an emphasis on strategic thinking, problem-solving and leadership effectiveness.</li> </ul>		
Prerequisites		Corequisites	
Course Content	<p>This course offers an extensive and comprehensive training in the field of Sports Medicine and Exercise Health, covering a number of important topics and aspects of contemporary practice and theory. The main modules of the course include:</p> <ol style="list-style-type: none"> <li>1. <b>Introduction to Sports Medicine and Exercise Health:</b> Examines the basic principles and application of Sports Medicine and Exercise Health, highlighting the historical importance of exercise as a means of promoting health and the need for an integrated approach to health.</li> <li>2. <b>Legal and Ethical Aspects of Medical Care in Sport:</b> Focuses on the legal and ethical aspects of sports medicine, including issues such as data privacy and ethical challenges in decision-making.</li> <li>3. <b>Risk Management in the Sports Environment:</b> Analyzes the identification, assessment and management of risks in sports, with application to real sports events.</li> <li>4. <b>Ambush Marketing in Sports &amp; Service Quality Assurance:</b> Examines Ambush Marketing and advertising strategies in sports, as well as the importance of quality assurance of sports services.</li> <li>5. <b>Cardiac Screening &amp; Sudden Death:</b> It deals with the prevention of sudden death through cardiac screening, analyzing aspects of heart health and the importance of regular exercise.</li> <li>6. <b>Concussion, Dehydration and Thermal Diseases:</b> Focuses on identifying and managing the risks of concussion, dehydration, and heat-related conditions in sports.</li> </ol> <p>In each module, students will gain a deep understanding of the issues and develop skills to apply the principles in practice. The overall approach of the course is multi-layered, incorporating technical education, legal and ethical aspects, as well as practical management and prevention skills. This ensures</p>		

	<p>a holistic understanding and application of the principles of Sports Medicine and Exercise Health.</p>	
<p>Teaching Methodology</p>	<p>The course is structured and developed based on the principles of distance learning, good practices as well as the guidelines of the Evaluation Body and finally the Pedagogical Framework developed and implemented by our University. Also, through the design and development of distance learning courses, synchronous and asynchronous interaction, communication and collaboration are taken into account at 3 levels: 1) between instructor and student, 2) between students, and 3) between students and content.</p> <p>The course is taught entirely online through the electronic platform Moodle LMS. Mandatory, optional and additional bibliography (e.g. books, articles, links, open educational resources, case studies) in combination with notes, course presentations and suggestions for reading study (bibliography) are available to students through an electronic platform. Also, a variety of appropriate educational material is given through the online platform in the form of presentations with notes, presentations with narration, interactive presentations and videos, interactive learning scenarios, gamification activities, avatars, digital twins, audio files, online quizzes). Various online tools, new and emerging technologies are being exploited: communication tools (e.g. video conferencing, chat rooms), collaboration tools (e.g. discussion forums, blogs, wikis), as well as content development tools. Students are encouraged through the platform and various technological tools to interact with their fellow students and the instructor, in order to become active members of the online learning community created within the framework of the course. Finally, with the use of various technological tools, each student is expected to create his own online learning community. More information about distance learning at Frederick University, the Pedagogical Background developed and implemented, as well as the toolkit used, can be found at the following link.</p> <p><a href="#">About Distance Learning - Frederick University</a></p>	
<p>Bibliography</p>	<p><b>Module</b> <b>1</b> <b>(Week</b> <b>1 - 2)</b></p>	<p><b>Mandatory Bibliography</b></p> <p><b>Digital Multimedia Material</b></p> <ul style="list-style-type: none"> <li>• Interactive presentation on <b>Introduction to Sports Medicine</b> and Exercise Health</li> <li>• Video and link related to Exercise is medicine, American College of Sport Medicine and WHO:  <a href="https://www.youtube.com/watch?v=AhvchRSofA4">https://www.youtube.com/watch?v=AhvchRSofA4</a>  <a href="https://exercisemedicine.gr/h-protasi-exercise-is-medicine/">https://exercisemedicine.gr/h-protasi-exercise-is-medicine/</a>  <a href="https://www.acsm.org">https://www.acsm.org</a>  <a href="https://www.who.int/publications/i/item/9789241514187">https://www.who.int/publications/i/item/9789241514187</a> </li> </ul> <p>Articles/Conference Proceedings:</p>

		<ul style="list-style-type: none"> <li>• Berryman, J. W. (2010). Exercise is medicine: A historical perspective. <i>Current Sports Medicine Reports</i>, 9(4), 195–201. <a href="https://doi.org/10.1249/JSR.0b013e3181e7d86d">https://doi.org/10.1249/JSR.0b013e3181e7d86d</a></li> <li>• Ding, D., Lawson, K. D., Kolbe-Alexander, T. L., Finkelstein, E. A., Katzmarzyk, P. T., Mechelen, W. van, &amp; Pratt, M. (2016). The economic burden of physical inactivity: A global analysis of major non-communicable diseases. <i>The Lancet</i>, 388(10051), 1311–1324. <a href="https://doi.org/10.1016/S0140-6736(16)30383-X">https://doi.org/10.1016/S0140-6736(16)30383-X</a></li> <li>• <i>Global action plan on physical activity 2018–2030: More active people for a healthier world.</i> (n.d.). Retrieved December 7, 2023, from <a href="https://www.who.int/publications-detail-redirect/9789241514187">https://www.who.int/publications-detail-redirect/9789241514187</a></li> <li>• Lee, I.-M., Shiroma, E. J., Lobelo, F., Puska, P., Blair, S. N., &amp; Katzmarzyk, P. T. (2012). Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. <i>The Lancet</i>, 380(9838), 219–229. <a href="https://doi.org/10.1016/S0140-6736(12)61031-9">https://doi.org/10.1016/S0140-6736(12)61031-9</a></li> <li>• Marino, K. R., Murphy, J. N., &amp; Culvenor, A. G. (2020). University of Nottingham, UK: Clinicians and non-clinicians can become a master of sport and exercise medicine (MSc) (continuing professional development series). <i>British Journal of Sports Medicine</i>, 54(11), 691–692. <a href="https://doi.org/10.1136/bjsports-2019-100967">https://doi.org/10.1136/bjsports-2019-100967</a></li> <li>• Matheson, G. O., Klügl, M., Dvorak, J., Engebretsen, L., Meeuwisse, W. H., Schwellnus, M., Blair, S. N., Mechelen, W. van, Derman, W., Börjesson, M., Bendiksen, F., &amp; Weiler, R. (2011). Responsibility of sport and exercise medicine in preventing and managing chronic disease: Applying our knowledge and skill is overdue. <i>British Journal of Sports Medicine</i>, 45(16), 1272–1282. <a href="https://doi.org/10.1136/bjsports-2011-090328">https://doi.org/10.1136/bjsports-2011-090328</a></li> <li>• Mattson, M. P. (2012). Evolutionary aspects of human exercise—Born to run purposefully. <i>Ageing Research Reviews</i>, 11(3), 347–352. <a href="https://doi.org/10.1016/j.arr.2012.01.007">https://doi.org/10.1016/j.arr.2012.01.007</a></li> <li>• McCrory, P. (2006). What is sports and exercise medicine? <i>British Journal of Sports Medicine</i>, 40(12), 955–957.</li> <li>• Neunhaeuserer, D., Niebauer, J., Degano, G., Baiocco, V., Borjesson, M., Casasco, M., Bachl, N., Christodoulou, N., Steinacker, J. M., Papadopoulou, T., Pigozzi, F., &amp; Ermolao, A. (2021). Sports and exercise medicine in Europe and the advances in the last decade. <i>British Journal of Sports Medicine</i>, 55(20), 1122–1124. <a href="https://doi.org/10.1136/bjsports-2021-103983">https://doi.org/10.1136/bjsports-2021-103983</a></li> <li>• Sallis, R. E. (2009). Exercise is medicine and physicians need to prescribe it! <i>British Journal of Sports Medicine</i>, 43(1), 3–4. <a href="https://doi.org/10.1136/bjism.2008.054825">https://doi.org/10.1136/bjism.2008.054825</a></li> <li>• Singh, V., Pollard, K., Okasheh, R., Percival, J., &amp; Cramp, F. (2023). Understanding the role of allied health</li> </ul>
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		<p>professional support workers with exercise qualifications in the delivery of the NHS Long Term Plan within allied health professional services in England. <i>BMJ Open Sport &amp; Exercise Medicine</i>, 9(3), e001625. <a href="https://doi.org/10.1136/bmjsem-2023-001625">https://doi.org/10.1136/bmjsem-2023-001625</a></p> <p><u>Books:</u></p> <ul style="list-style-type: none"> <li>• Brukner, P., &amp; Khan, K. (2019). <i>Clinical Sports Medicine: The Medicine of Exercise 5e, Vol 2</i> (5th edition). McGraw Hill / Australia.</li> <li>• Brukner, P., Khan, K., Clarsen, B., Cools, A., Crossley, K., Hutchinson, M., McCrory, P., Bahr, R., &amp; Cook, J. (2017). <i>Brukner and Khans Clinical Sports Medicine Injuries, Volume 1</i> (5th edition). McGraw Hill / Australia.</li> </ul>
	<p><b>Module</b> <b>2</b> <b>(Week</b> <b>3 - 4)</b></p>	<p><b>Mandatory Bibliography</b></p> <ul style="list-style-type: none"> <li>• European Treaty Series-No. 135, n.d.</li> <li>• Henry, I. and Ko, L.-M., 2013. <i>Routledge Handbook of Sport Policy</i>. Routledge.</li> <li>• Action 3: Unify and further develop international standards supporting sport ministers' interventions in the field of sport integrity (in correlation with the International Convention against Doping in Sport) Guidelines on sport integrity, n.d.</li> </ul> <p><b>Digital Multimedia Material</b></p> <ul style="list-style-type: none"> <li>• ilo.org., 2021. Key documents. [online] Available at: <a href="https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:61:0::NO:::">https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:61:0::NO:::</a> [Accessed 3 Dec. 2023].</li> <li>• International Olympic Committee, 2021. Integrity. [online] Available at: <a href="https://olympics.com/ioc/code-of-ethics">https://olympics.com/ioc/code-of-ethics</a>.</li> <li>• Enlarged Partial Agreement on Sport (EPAS) Forum on Sport and Human Rights Focus on Data Protection, 2023.</li> <li>• UN Global Compact, 2023. Homepage   UN global compact. [online] <a href="http://unglobalcompact.org">unglobalcompact.org</a>. Available at: <a href="https://unglobalcompact.org/">https://unglobalcompact.org/</a>.</li> <li>• Bodin, D. and Sempé, G. (n.d.). Ethics and sport in Europe. [online] Available at: <a href="https://rm.coe.int/ethics-and-sport-in-europe/16807349a1">https://rm.coe.int/ethics-and-sport-in-europe/16807349a1</a>.</li> </ul> <p><b>Articles</b></p> <ul style="list-style-type: none"> <li>• Anderson L. (2008). Contractual obligations and the sharing of confidential health information in sport. <i>Journal of medical ethics</i>, 34(9), e6. <a href="https://doi.org/10.1136/jme.2008.024794">https://doi.org/10.1136/jme.2008.024794</a></li> <li>• McNamee M. &amp; Phillips N. (2011). Confidentiality, disclosure and doping in sports medicine. <i>British Journal of Sports Medicine</i>, 45, 174-177. <a href="https://doi.org/10.1136/bjsem.2009.064253">https://doi.org/10.1136/bjsem.2009.064253</a></li> <li>• Greenfield, B. H., &amp; West, C. R. (2012). Ethical issues in sports medicine: a review and justification for ethical decision making and reasoning. <i>Sports health</i>, 4(6), 475–479. <a href="https://doi.org/10.1177/1941738112459327">https://doi.org/10.1177/1941738112459327</a></li> </ul>

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<b>Module 3</b> <b>(Week 5 - 6)</b>	<p><b>Mandatory Bibliography</b></p> <p><u>Chapters from books:</u></p> <ul style="list-style-type: none"> <li>• Spengler, J. O., Connaughton, D., &amp; Pittman, A. T. (2006). Risk management in sport and recreation. <i>Human Kinetics</i>.</li> </ul> <p><u>Articles/Conference Proceedings:</u></p> <ul style="list-style-type: none"> <li>• Fuller, C., &amp; Drawer, S. (2004). The application of risk management in sport. <i>Sports medicine</i>, 34, 349-356.</li> <li>• Toohey, K., &amp; Taylor, T. (2023). Mega events, fear, and risk: Terrorism at the Olympic Games. In <i>The Olympics</i> (pp. 329-343). Routledge.</li> <li>• Leopkey, B., &amp; Parent, M. M. (2009). Risk management strategies by stakeholders in Canadian major sporting events. <i>Event Management</i>, 13(3), 153-170.</li> <li>• Leopkey, B., &amp; Parent, M. M. (2009). Risk management issues in large-scale sporting events: A stakeholder perspective. <i>European Sport Management Quarterly</i>, 9(2), 187-208.</li> <li>• Hanstad, D. V. (2012). Risk management in major sporting events: A participating national Olympic team's perspective. <i>Event Management</i>, 16(3), 189-201.</li> </ul>
<b>Module 4</b> <b>(Week 7 - 8)</b>	<p><b>Mandatory Bibliography</b></p> <p><u>Chapters from books:</u></p> <ul style="list-style-type: none"> <li>• Tsiotsu, R. (2020). <i>Sports Marketing</i>. Broken Hill. (Ch. 13, pp: 579-645).</li> <li>• Runia, P., Wahl, F., Geyer, O., Thewiben, Ch., (2014). <i>Marketing: Processes and practices</i>. Precursor. (Ch. 5, pp.: 326-329).</li> <li>• Alexandris, K., (2016). <i>Management and Marketing Principles</i>. Kyriakides Bros, Publications S.A. (Ch.15, pp.: 379-404)</li> </ul> <p><u>Books:</u></p> <ul style="list-style-type: none"> <li>• Nufer, G. (2013). <i>Ambush marketing in sports</i>. Routledge.</li> <li>• Louw, A. M. (2012). <i>Ambush marketing &amp; the mega-event monopoly: How laws are abused to protect commercial rights to major sporting events</i>. Springer Science &amp; Business Media.</li> </ul>

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	<p><b>Module</b> <b>6</b> <b>(Week</b> <b>11 - 12)</b></p>	<p><b>Digital Material:</b></p> <ul style="list-style-type: none"> <li>• What is a concussion: <a href="https://youtu.be/Sno_0Jd8GuA">https://youtu.be/Sno_0Jd8GuA</a></li> <li>• Concussion/Traumatic brain injury: <a href="https://www.youtube.com/watch?v=55u5lvx31og">https://www.youtube.com/watch?v=55u5lvx31og</a></li> <li>• What happens when you have a concussion (how dangerous are concussions, how does a concussion affect the brain, symptoms, healing):</li> <li>• <a href="https://youtu.be/xvjK-4NXRsM">https://youtu.be/xvjK-4NXRsM</a></li> <li>• How concussion affects the brain: <a href="https://www.youtube.com/watch?v=q91C2N9D-Kk">https://www.youtube.com/watch?v=q91C2N9D-Kk</a></li> </ul>

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Assessment	<p>The evaluation of the course includes activities of continuous / formative assessment (formative), self-evaluation (self-evaluation and debriefing / final evaluation (summative). Specifically, the evaluation of this course includes the following: final written exam, 2 evaluation assignments, 2 evaluative online interactive discussions, various weekly educational activities such as interactive activities, interactive presentations/ videos and self-assessment activities.</p> <p>From the above, the following are scored:</p> <ul style="list-style-type: none"> <li>• Final exam (<b>50%</b>)</li> <li>• 2 evaluation papers (20% + 15% = 35%)</li> <li>• 2 online interactive activities (7.5% + 7.5% = <b>15%</b>)</li> </ul>



	All assignments (except the final exam) are assigned and delivered to the online platform, as well as a plagiarism check through the turnitin tool. The final exam is developed by the instructor and completed by the students on a special platform used exclusively for the exams.
Language	English / Greek