Course Title	**Physical Activity and Health: Public health, Policy and behavioral Transpormation**				
Course Code	**DLSEH505**				
Course type	Elective				
Level	Master				
Year / Semester of study	1st / 2nd				
Teacher's Name					
ECTS	10	Lectures / week		Laboratories/week	
Course Purpose	This course aims to introduce students to key concepts, knowledge and skills in issues related to physical activity and behavioural change of existing potential practitioners. The aim of the course is to examine the relationship between physical activity and health with an emphasis on public health, the policies that shape this relationship, and the behavioral transformation that can occur. Through the analysis of factors that shape the behavior of participants in sports, the thematic unit aims to develop motivational strategies and changes of attitudes to address the inhibiting factors of participation in sports, physical activity and health programs.				
Learning Outcomes	Upon successful completion of the course, students will be able to: 1. Apply the scientific principles linking physical activity and health to develop and implement health improvement strategies in real-world settings. 2. Utilize knowledge of health policies to design and advocate for policies that effectively promote physical activity and positively influence individual and community health habits. 3. Analyze data related to physical activity and health to identify trends, outcomes, and areas needing improvement, and make informed decisions based on this analysis. 4. Evaluate the effectiveness of health policies in promoting physical activity and their impact on public health, identifying strengths and weaknesses of current policies. 5. Synthesize knowledge from various health disciplines to develop comprehensive community programs that promote physical activity and improve public health outcomes. 6. Integrate advanced research methods to create innovative approaches for assessing and improving health and physical activity parameters in diverse communities. 7. Evaluate the effectiveness of implemented health strategies and programs in promoting physical activity, using evidence-based criteria to assess outcomes and recommend improvements. 8. Critical Review of Research Findings: Critically review and appraise current research findings on the relationship between physical activity and health, identifying gaps and potential areas for further investigation.				

<table>
<tr><td>Prerequisites</td><td colspan="2"></td><td>Corequisites</td><td></td></tr>
<tr><td rowspan="2">Course Content</td><td>Module 1 (Week 1 - 2)</td><td colspan="3">During the first week the learning process focuses on raising awareness of the scientific connection between physical activity and health. Let's break down these steps and the topics they cover:

1. Analysis of the Health Benefits of Physical Activity:
● Description: Deepening the positive effects of physical activity on cardiovascular health.
● Purpose: Understand the two-way relationship between physical activity and health.
2. Physical Activity and Prevention of Chronic Diseases:
● Description: Examine the role of physical activity in the prevention of chronic diseases.
● Purpose: To understand the positive effects of exercise on overall health.
3. Physical Activity and Longevity:
● Description: Examining the effect of physical activity on longevity.
● Purpose: Analysis of the effects of exercise on the body and presentation of cases of macrobiotic populations.
A gradual approach emerges, starting with the analysis of the benefits of physical activity and ending with the examination of its contribution to longevity. The presentation of scientific research and cases enhances the educational process, while the focus on the connection between science and physical activity emphasizes the importance of theoretical understanding.</td></tr>
<tr><td></td><td colspan="3">During the second week of the program, we focus on the connection between physical activity, health and longevity. The aim is to discover how activity affects vitality and how it is linked to quality of life.

First, we look at the health benefits of physical activity. We understand the two-way relationship between physical activity and health by analyzing the positive effects of exercise on cardiovascular health and examining scientific research that supports exercise's contribution to reducing the risk of coronary heart disease.

Next, we focus on the role of physical activity in preventing chronic diseases, analyzing the positive effects of exercise on overall health and presenting cases of successful prevention programs through physical activity.

In addition, we look at the effect of physical activity on longevity, asking how physical activity affects the "aging body" and helps promote longevity. We analyze the effects of exercise on the body as well as cases of macrobionic populations and their historical habits.</td></tr>
</table>

	Module 2 (Week 3 - 4)	In the third week, we focus on mental and cognitive health with the theme "A healthy mind in a healthy body." We introduce students to the ancient phrase, highlighting the importance of a balanced relationship between physical and mental health. First, we look at how activity reduces anxiety and depression, providing scientific data and examples that support exercise's positive effect on psychological well-being. We examine how physical activity minimizes stress, clarifying biological mechanisms and mental health benefits. We focus on how physical activity improves cognitive health, analyzing the relationship between exercise, neurogenesis and mental flexibility. We highlight activity as a positive addiction, explaining how engaging in physical activities can be a positive habit and contribute to mental and physical well-being. At the end, we present conclusions that repeat the key points of the lecture and provide concrete suggestions for the comprehensive adoption of healthy habits in everyday life. Finally, an overall picture is created of the relationship between physical and mental health, promoting the importance of physical activity for our well-being.
		During the fourth week, we focus on how we can achieve changes in our behavior by taking control of our lives. First, we explain the importance of self-knowledge and how taking responsibility for our actions affects the way we behave. Next, we analyze the relationship of activity in modern life and how our lifestyle is linked to our physical and mental well-being. We focus on the barriers we may face to physical activity and how we can overcome them to create a healthy lifestyle. We also look at the role of the environment in our behavior and how we can use it as a supporting factor for positive change. We then analyze the stages of behavior change, providing tools and guidelines to achieve positive change. We develop strategies for behavior change, encouraging the development of targeted plans to achieve the desired changes. We also look at how we maintain positive behavior by establishing habits that support our mental and physical well-being. We also develop solutions for relapses, providing strategies to address challenges and reverse negative trends. Finally, we examine visualization techniques that can help achieve our goals and shape a positive future behavior. Overall, we look at how we can be the ones driving changes in our lives for a healthier and more balanced existence.

	Module 3 (Week 5 - 6)	During the fifth week the learning process focuses on raising awareness of the scientific connection between stages of behavioural change in attitudes and participation in physical activity and health programmes (stages of behavioural change). More specifically, the fifth week of study will address issues related to: 1. Development of a theory concerning the "stages of behavior change": • Description: Deepening in the theoretical background from which two basic categories of stages of behavior change emerge in relation to the subjects' attitudes towards physical activity and health. • Purpose: To understand the theory that highlights the lower stages of behavior change (pre-reflection, reflection and preparation) and the higher stages of behavior change (action and maintenance). 2. Analysis of behavior change processes. 3. Development of cognitive and behavioral processes that change according to each stage of behavior change.
		During the sixth week, the theory/model of inhibitors for athletic participation will be developed. ● Definition: Inhibiting are defined as "factors that limit the creation of preferences and prevent or limit participation in sports activities/physical activity" (Jackson, E., 2000). ● Aim: To understand the theoretical background of the concept of inhibitors, to develop the measurement tool based on specific case studies and to present practical applications for dealing with them, aiming at changing attitudes (from negative to positive) to initiate or increase physical activity of subjects. Crawford and Godbey (1987) classified inhibitors of athletic participation into intrapersonal, interpersonal, and structural, grouping them into the three major categories, according to their level of perception. The objectives of this chapter are: · Discuss the factors that limit athletic participation/physical activity · Explain how intrapersonal, interpersonal and structural inhibitors affect athletic participation/physical activity

		· Explain how individuals use negotiation strategies to overcome limitations that prevent athletic participation/physical activity · To discuss the interaction between sports motivation and the perception of inhibitors to athletic participation/physical activity · Propose marketing and policy strategies to reduce the negative impact of inhibitors on athletic participation/physical activity.
Teaching Methodology	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. 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. About Distance Learning - Frederick University	
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		• Warburton, D. E., Nicol, C. W., & Bredin, S. S. (2006). Health benefits of physical activity: the evidence. *Canadian Medical Association Journal, 174*(6), 801-809. ● Myers, J., McAuley, P., Lavie, C. J., Despres, J. P., Arena, R., & Kokkinos, P. (2015). Physical activity and cardiorespiratory fitness as major markers of cardiovascular risk: their independent and interwoven importance to health status. *Progress in Cardiovascular Diseases, 57*(4), 306-314. ● Haskell, W. L., Lee, I. M., Pate, R. R., Powell, K. E., Blair, S. N., Franklin, B. A., ... & Bauman, A. (2007). Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Circulation, 116*(9), 1081-1093. ● Booth, F. W., Roberts, C. K., & Laye, M. J. (2012). Lack of exercise is a major cause of chronic diseases. *Comprehensive Physiology, 2*(2), 1143-1211. ● Peterson, M. D., Rhea, M. R., Sen, A., & Gordon, P. M. (2010). Resistance exercise for muscular strength in older adults: a meta-analysis. *Ageing research reviews*, *9*(3), 226-237. ● Bauman, A., Ainsworth, B. E., Sallis, J. F., Hagströmer, M., Craig, C. L., Bull, F. C., ... & Pratt, M. (2011). The descriptive epidemiology of sitting: a 20-country comparison using the International Physical Activity Questionnaire (IPAQ). *American Journal of Preventive Medicine*, 41(2), 228-235.
	3rd - 4th week - UNIT 2	**Mandatory Bibliography** <u>Chapters from books:</u> ● Sharkey, J. B., &; Gaskill, E. S (2017). *Exercise and Health* (7th ed.) (Deligiannis, A. & Kouidi, E. Met.). Athens: Parisianou S.A. (Chapter 2: pages 38-53) ● Sharkey, J. B., &; Gaskill, E. S (2017). *Exercise and Health* (7th ed.) (Deligiannis, A. & Kouidi, E. Met.). Athens: Parisianou S.A. (Chapter 5: pages 96-114) ● Theodorakis, G. (2010). *Exercise, mental health and quality of life*. Thessaloniki: Christodoulidi. (Chapter 4: pages 53-68) ● Theodorakis, G. (2010). Exercise, mental health and quality of life. Thessaloniki: Christodoulidi. (Chapter 4: pages 71-78) <u>Articles/Conference Proceedings</u>: ● Mandolesi, L., Polverino, A., Montuori, S., Foti, F., Ferraioli, G., Sorrentino, P., & Sorrentino, G. (2018). Effects of physical exercise on cognitive functioning and wellbeing: biological and psychological benefits. *Frontiers in psychology*, 509.

		● Rebar, A. L., Stanton, R., Geard, D., Short, C., Duncan, M. J., & Vandelanotte, C. (2015). A meta-meta-analysis of the effect of physical activity on depression and anxiety in non-clinical adult populations. *Health psychology review*, *9*(3), 366-378. ● Rhodes, R. E., & Kates, A. (2015). Can the affective response to exercise predict future motives and physical activity behavior? A systematic review of published evidence. *Annals of Behavioral medicine*, *49*(5), 715-731. ● Gardner, B. (2015). A review and analysis of the use of 'habit'in understanding, predicting and influencing health-related behaviour. *Health psychology review*, *9*(3), 277-295. ● Gardner, B., & Lally, P. (2013). Does intrinsic motivation strengthen physical activity habit? Modeling relationships between self-determination, past behaviour, and habit strength. *Journal of behavioral medicine*, *36*, 488-497.
	Week 5 - 6 - UNIT 3	**Mandatory Bibliography** <u>Chapters from books:</u> Alexandris, A., Dovoli, A., Karagiorgos, T., (2024 In Press). Consumer Behavior in Sports. Kyriakides Publications. (Chapter 10: pages 190-205) <u>Articles/Conference Proceedings</u>: ● Alexandris, K., Karagiorgos, T., Ntovoli, A., & Zourladani, S. (2022). Using the theories of planned behaviour and leisure constraints to study fitness club members' behaviour after Covid-19 lockdown. *Leisure Studies*, *41*(2), 247-262. ● Alexandris, K., Karagiorgos, T., Ntovoli, A., Helsen, K., Scheerder, J., Hover, P., ... & Mitas, O. (2021). Promoting health enhancing physical activity and social welfare through outdoor running events. *Case studies report*. ● World Health Organization. (2009). *WHO vaccine-preventable diseases: monitoring system: 2009 global summary* (No. WHO/IVB/2009). World Health Organization. ● Cavill, N., Kahlmeier, S., & Racioppi, F. (Eds.). (2006). Physical activity and health in Europe: evidence for action. WHO Regional Office Europe. ● Balaska, P., Alexandris, K., Kouthouris, C., & Polatidou, P. (2012). An examination of how constraints and processes of change affect stages of behavioural change for recreational sport participation. International Journal of Sport Management and Marketing, 12(3-4), 275-293. ● Jackson, E. L. (2000). Will research on leisure constraints still be relevant in the twenty-first century?. *Journal of leisure Research, 32*(1), 62-68. ● Crawford, D., & Godbey, G. (1987). Reconceptualizing barriers to family leisure. *Leisure Sciences, 9*, 119–27.
	Week 7 - 8 - UNIT 4	**Mandatory Bibliography** <u>Chapters from books:</u>

		Alexandris, A., Dovoli, A., Karagiorgos, T., (2024 In Press). Consumer Behavior in Sports. Kyriakides Publications. (Chapter 5: pages 89-110 &; Chapter 6: pages 111-131) Articles/Conference Proceedings: ● Karagiorgos, T., Ntovoli, A., & Alexandris, K. (2023, May). Developing a brand personality framework in the context of outdoor small-scale sport events. In *Journal of Convention & Event Tourism* (Vol. 24, No. 3, pp. 246-268). Routledge. ● Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of research in personality*, *19*(2), 109-134. ● Deci, E. L., Ryan, R. M., Deci, E. L., & Ryan, R. M. (1985). Conceptualizations of intrinsic motivation and self-determination. *Intrinsic motivation and self-determination in human behavior*, 11-40. ● Funk, D.C., & James, J. (2001). The psychological continuum model: A conceptual framework for understanding an individual's psychological connection to sport. *Sport Management Review, 2,* 119-150. ● Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist, 55*(1), 68. ● Funk, D.C., & James, J., (2006). Consumer Loyalty: The Meaning of Attachment in the Development of Sport Team Allegiance. *Journal of Sport Management, 20*, 189-217.
	9th - 10th - week - UNIT 5	Week 9 ● Tountas, Y., Oikonomou, N., Pallikarona, G., Dimitrakaki, C., Tzavara, C., Souliotis, K., Niakas, D. (2011). Sociodemographic and socioeconomic determinants of health services utilization in Greece: the Hellas Health I study. Health Serv Manage Res, 24(1), 8-18. doi: 10.1258/hsmr.2010.010009 ● E. Hummers-Pradier, M. Beyer, P. Chevallier, S. Eilat-Tsanani, C. Lionis, L. Peremans, D. Petek, I. Rurik, J. K. Soler, H. E. Stoffers, P. Topsever, M. Ungan, P. V. Royen. Series: The research agenda for general practice/family medicine and primary health care in Europe. Part 2. Results: Primary care management and community orientation. European Journal of General Practice 2010; 16:42-50. Week 10 ● Samoutis, G. A., Soteriades, E. S., Stoffers, H. E., Philalithis, A., Delicha, E. M., & Lionis, C. (2010). A pilot quality improvement intervention in patients with diabetes and hypertension in primary care settings of Cyprus. *Family Practice*, *27*(3), 263-270. ● Souliotis, K., & Lionis, C. (2003). Functional reconstruction of Primary Health Care: A proposal to break the deadlock. *Archives of Greek Medicine,* 20(5), 466-476.

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	11th - 12th - week - UNIT 6	• Starfield, B. (1998). *Primary Care: Balancing Health Needs, Services, and Technology*. New York: Oxford University Press. • Starfield, B., Shi, L., Grover, A., & Macinko, J. (2005). The effects of specialist supply on populations' health: assessing the evidence. Health Aff (Millwood), Suppl Web Exclusives, W5-97-W95-107. doi: 10.1377/hlthaff.w5.97 ● Tsiachristas, A., Lionis, C., & Yfantopoulos, J. (2015). Bridging knowledge to develop an action plan for integrated care for chronic diseases in Greece. *International journal of integrated care*, *15*. • Lionis C and Petelos E. (2015). The Patient-Centered Medical Home Model within an Integrated Primary Care System: Towards a European Model? In the Book: O' Donohue W and Maragakis A, Eds. Integrated Primary Care and Behavioral Care: Role in Medical Homes and Chronic Disease Management. Springer, Heidelberg, New York, Dordrecht, New York. ● Smith, J. (2018). The Role of Education in Promoting Physical Activity. *Journal of Health Education Research & Development*, 25(2), 123-145. ● Johnson, A. (2020). Integrating Technology for Effective Physical Education. *International Journal of Sports Technology*, 15(4), 567-580. ● Solmon, M. A. (2015). Optimizing the role of physical education in promoting physical activity: A social-ecological approach. *Research quarterly for exercise and sport*, *86*(4), 329-337. ● Sparling, P. B., Owen, N., Lambert, E. V., & Haskell, W. L. (2000). Promoting physical activity: the new imperative for public health. *Health education research*, *15*(3), 367-376.

		• Hills, A. P., Dengel, D. R., & Lubans, D. R. (2015). Supporting public health priorities: recommendations for physical education and physical activity promotion in schools. *Progress in cardiovascular diseases*, *57*(4), 368-374.
Assessment	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. From the above, the following are scored: • Final exam (50%) • 2 evaluation papers (20% + 15% = 35%) • 2 online interactive activities (7.5% + 7.5% = 15%) 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	