



HELLENIC REPUBLIC
UNIVERSITY OF THESSALIA
SCHOOL OF PHYSICAL EDUCATION, SPORTS AND DIETETICS
DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS SCIENCE

POSTGRADUATE STUDIES PROGRAM
APPLIED KINESIOLOGY IN THE ARMED FORCES AND SECURITY BODIES
(MSc in KINESIOLOGY IN ARMED AND SECURITY FORCES PERSONNEL)

STUDY GUIDE



Εφαρμοσμένη Κινησιολογία
στις Ένοπλες Δυνάμεις
και τα Σώματα Ασφαλείας

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QUOTATION MARKS

The compilation of the material and the editing of this Study Guide were carried out under the guidance of the Director of the Postgraduate Studies Program (PSP) Applied Kinesiology in the Armed Forces and Security Forces (EKEDYSA), Professor Andreas Flouris, and the valuable assistance of Ms. Maria Koutsianitis, Secretary of the PSP.

To a large extent, this Study Guide was based on the contents of the Study Guide of the Undergraduate Curriculum of the Department of Physical Education and Sports Science (TEFAA) of the University of Thessaly (UTH) and was adapted accordingly.

The first part of the Study Guide contains useful information regarding the University of Trikala, the city of Trikala and the University of Trikala campus in Karyes, Trikala. The second part presents the Postgraduate Program regarding its profile, vision, principles, quality policies, administration, staff, facilities and laboratories. The third part includes particularly useful instructions for students regarding: course registration, exams, code of conduct, use of IT services, organization and tools of distance learning, course evaluation, as well as student support services, counseling, disability and access, use of books and articles from the library, the Erasmus program, etc. The fourth part of the Study Guide describes in detail the Postgraduate Program, the thesis, as well as the doctoral studies and postdoctoral studies that someone can undertake at the Faculty of Engineering and Technology. Finally, the operating regulations of the TEFAA are presented.

ABBREVIATIONS

DEKA: Research, Innovation and Excellence Structure

ETHAAE: National Authority of Higher Education

EKEDYSA: Applied Kinesiology in the Armed Forces and Security Forces

ELKE: Special Research Funds Account

MODIP: Quality Assurance Unit

OMEA: Internal Evaluation Team

PEK: University Research Center

UTh: University of Thessaly

PMS: Postgraduate Studies Program

TEFAA: Department of Physical Education and Sports Science

SEFAAD: School of Physical Education, Sports and Dietetics

FmeA : students with disabilities and/or special educational needs

FOREWORD BY THE DIRECTOR OF THE POSTGRADUATE SCHOOL

Dear ones / ones us students / teachers ,

With with milk joy your Welcome to M T S « Applied Kinesiology in Armed Powers and so on the Body of the Let 's be safe » (SECTION A) Department of Physics Education and Athletics (TEFAA) the s Comment Of faith Physics Leadership , Sports and Dietetics (SEFAAD) of I am very confident . Thessaly (P I).

The postgraduate program E K EDYSSA aims to to supply staff of the Armed Forces and of Security Forces but and political personnel with in - depth knowledge for the optimization physical fitness , performance and so on quality life of the Fleets S e l e c h o n .

All the personal his / her PTH where participates in the Postgraduate Diploma as and the Invited Teachers / We work with m e zeal, passion and responsibilities . The actions us have a goal the honestly offers like this as long as n a a t e r e s s i d e of excellence in the about education her Greece with noun contribution in the research , the n production knowledge and so on education .

We feel like we are proud of who if we are in the University of Technology, the third with a smile university of Greece , which is included in 5% of top of the world Europeans university , agree with me the University Ranking of Academic P e r f o r m a n c e , but and so on in this the Department where is everything the final year is evaluated as the better T E F A A the Greece and so on a from the 1 50 best Departments Athletic Medical science in international level .

The level of living the qualification of of from the graduates of M T S E C E D Y S A it will be considered very high. The themselves the from students previous year if they bring the n very in the narrow

collaboration that has if it fails with the You are welcome . Powers and the Bodies Safety , as it seems and so on from : a) the signature memory of you cooperation with the Comment Permanent

Officers , b) the signature memorandum of synergy with the n 1st Army (Larissa), c) the recognition his / her M T S from the General Office Army as connections with the military profession (December 2016) , d) the n again of Chief of Army Staff at installations of the TEFAA and of Postgraduate Diploma (2 0 1 7), e) the organization of threesomes the share in Larissa (20 1 6, 2 0 1 7) and Thessaloniki (20 1 7) m e him general title « Natural State & Quality Life in the Greek Islands

In weapons " Dynamics " , as and so on in a lot others actions .

The contemporary building installations and the rich laboratory equipment of the TEFAA, the high level Professors / three where are you distinguish for the passion in What is yours ? the true lilies interesting and so on the availability duration supply , but and so on the five clean surroundings of Department guarantees the plural You are welcome . academic conditions for the successful ones studies to you.

Andrew Fluor

Residence

Director of Postgraduate Diploma « Applied Kinesiology at
Armed Forces & the Our bodies " Safety "



1. GENERAL INFORMATION

1.1. The University of Thessaly

The University of Thessaly (UTH) (<https://www.uth.gr/>) was founded in 1984 and admitted its first students in the academic year 1988-89. With its administrative headquarters in the city of Volos, it has developed throughout the Region of Thessaly (Volos, Larissa, Karditsa and Trikala) and in part of Central Greece (Lamia).



Rectorate - Administrative Services Building of the University of Thessaly in Volos
(Papastratos Building)

of Thessaloniki currently has over 40,000 undergraduate students and approximately 6,000 postgraduate students and doctoral candidates, while it is staffed by 1,200 teaching and research staff of all categories, 427 administrative staff. In addition, the teaching of courses is supported by a sufficient number of contract teachers.

The University of Thessaloniki is a dynamically developing higher education institution, which, according to the Shanghai Ranking data, Ranking of World Universities, it is ranked among the 1,000 best universities internationally. Its mission is to advance knowledge through teaching and research and to contribute to cultural and economic development at the local, national and international levels. To achieve its goals, the University of Thrace seeks to create a learning environment that promotes critical thinking, innovation, freedom of expression and the cultivation of faith in democratic ideals.

The University of Thessaloniki demonstrates a consistent interest in high-quality scientific research. Considering it as a necessary condition for the production and transmission of new knowledge: it encourages the scientific distinction of research staff in all fields, rewards high individual and collective performance and cultivates a favorable climate for research and teaching innovation.

1.1.1. Schools

The academic structure of the University of Thessaloniki includes 8 Faculties and 37 Departments:

Schools	Departments
1. Polytechnic School	1. Department of Architecture 2. Department of Electrical and Computer Engineering 3. Department of Spatial Planning, Urban Planning and Regional Development Engineering 4. Department of Mechanical Engineering 5. Department of Civil Engineering
2. School of Humanities and Social Sciences	1. Pedagogical Department of Primary Education 2. Special Education Pedagogical Department 3. Pedagogical Department of Preschool Education 4. Language and Intercultural Studies 5. Department of History, Archaeology and Social Anthropology 6. Department of Culture and Creative Media and Industries
3. School of Physical Education, Sports Sciences and Dietetics	1. Department of Dietetics and Nutrition 2. Department of Physical Education and Sports Science
4. School of Health Sciences	1. Department of Biochemistry and Biotechnology 2. Department of Public and Unified Health 3. Department of Medicine 4. Department of Veterinary Medicine 5. Department of Nursing 6. Department of Physiotherapy
5. School of Economics and Administrative Sciences	1. Department of Business Administration 2. Department of Accounting and Finance 3. Department of Economics
6. School of Technology	1. Department of Forestry, Wood Sciences and Design 2. Department of Environment 3. Department of Energy Systems 4. Department of Digital Systems
7. School of Agricultural Sciences	1. Department of Agriculture, Ichthyology and Aquatic Environment 2. Department of Agriculture, Plant Production and Rural Environment 3. Department of Agriculture -Agrotechnology 4. Department of Animal Production Science 5. Department of Food Science and Nutrition
8. School of Sciences	1. Department of Mathematics 2. Department of Informatics and Telecommunications 3. Department of Informatics with Applications in Biomedicine 4. Department of Physics

In addition, the University of Thrace includes the General Departments of Larissa and Lamia, which do not award first-cycle degrees but cover the educational needs of the Departments of the University of Thrace.

1.1.2. Strategy

The University of Thessaloniki seeks to preserve and enrich the social good of knowledge, ensuring the right of access of the new generation to it, but at the same time the ability of the country to choose a new development model that will systematically and effectively utilize knowledge for the benefit of society. To support creative forces and the new generation, to transmit ideas and good practices, to produce new knowledge through research, to create networks and positive examples of the utilization of knowledge in the modern environment, composing a new web that connects it with the needs of the country and public policies.

The focus of the University of Thrace's development strategy includes:

- Its evolution into one of the most productive Universities in the country, with an emphasis on the excellent education of its students, excellence, high-level research and its decisive contribution to the development of local societies.
- Its international recognition for the production, utilization and dissemination of knowledge, as well as its collaborations with the global scientific community .
- The intensity of efforts towards expanding and strengthening its independence.
- The completion of the restructuring of its academic and administrative structure, the broadening of research horizons and the qualitative upgrading of teaching work, through the addition of the new Departments of the former TEI.
- The strengthening of finances and the completion of infrastructure for the housing of all its Departments and services.
- The improvement of the quality indicators of all administrative units of the Foundation and the indicators of its teaching, research and social work.
- Strengthening the environment of incentives and excellence to attract highly qualified scientists and leverage strong research teams.
- The development of motivation strategies for students, teachers and administrators.
- The consolidation of stable and decent working conditions for all categories of staff.

1.1.3. Structures (PEK IASON, DEKA, MOKE, Mediation)

The University of Thrace's Structures related to Research and Innovation are organized based on international standards and provide high-level services for the development of the institution's Research Programs and Innovative Applications, the results of which have a multiplier effect on the reputation and competitiveness of the University of Thrace on the international academic map.

1.1.3.1. University Center for Research, Innovation and Development "IASON"

Based on Law 4589/2019, the University Research Center (URC) was established at the University of Thessaloniki under the title "IASON" University Center for Research, Innovation and Development, as an academic unit of the Foundation, based in Volos. The objectives of the URC are:

- Conducting basic and applied research.

- The utilization of research results for the benefit of Greek society.
- Contributing to the specialization of young scientists.
- The provision of services to public and private entities.
- Education and internship.
- Mediation between the public and private sectors for the development of research units in businesses.
- The promotion of the Greek language and Greek culture abroad.

Institutes of the PEC:

- Intelligent production systems and smart cities, based in Volos,
- Digital culture and communication technologies and education, based in Volos,
- Rural development, based in Kileler,
- Animal genetic improvement, based in Karditsa,
- Kinesiology, based in Trikala,
- Systems Security and Data Science, based in Lamia,
- Cancer diagnosis and treatment, based in Larissa,
- Rehabilitation and wellness, based in Lamia,
- Teaching and teacher training, based in Volos,
- Entrepreneurship and Innovation, based in Larissa,
- Cotton and agricultural education, based in Karditsa,
- Wood - furniture and wooden packaging, based in Karditsa,
- Medicinal and aromatic plants, based in Trikala,
- International Education, based in Amfissa.

1.1.3.2. Research, Innovation and Excellence Structure (REI)

The Research, Innovation and Excellence Structure (RES) of the University of Thessaloniki aims to support multi-level academic and research activities, for which the common denominator is innovation and excellence. The purpose is to recognize and strengthen excellence, increase the research competitiveness of the Institution, target the production of innovative products and promote the provision of services to society and businesses in specialized sectors. RES operates as an autonomous structure, is supervised by the Senate of the University of Thessaloniki and applies the internal regulations, as published in the Government Gazette 4710/ issue B/29-12-2017.

1.1.3.3. Innovation and Entrepreneurship Unit (MOKE)

The Innovation and Entrepreneurship Unit (MOKE) of the University of Thessaloniki is an evolution of the Programs "Encouraging Entrepreneurial Actions, Innovative Applications and Elective Courses of the University of Thessaloniki Students" (Phases A and B, EPEAEK II). It is implemented within the framework of the Operational Program "Education and Lifelong Learning: 2007-2013" and is part of a broader plan for the career and employment of graduates and the connection of the Institution with the labor market.

The fundamental objectives of MOKE are to develop the entrepreneurial and innovative skills of students of the University of Thessaloniki and to support them in undertaking entrepreneurial action. To achieve its objectives, MOKE implements:

- Teaching courses related to entrepreneurship and innovative activity.
- Ensuring direct contact with the business community, with the help of visits to productive entities and the utilization of renowned entrepreneurs and/or high-ranking business executives.
- Full exploitation of the possibilities offered by new technologies, by utilizing modern management and business planning tools.
- Support in undertaking entrepreneurial action and implementing business ideas.

1.1.3.4. Mediation

The dissemination of research results conducted at the University of Thessaloniki is supported by the Outreach Office of the Research Committee. The Office's mission is to utilize research results through procedures that are consistent with the academic principles and the institution's code of ethics.

The University of Thrace applies an "open door" policy and seeks collaboration with public and private funding bodies, with the aim of exploring possibilities for the exploitation of research results.

The extroversion of the Foundation is served by the "Guide to Laboratories and Service Provision Units", which is subject to constant renewal, covering a wide range of research activities and thus constitutes an important tool for offering technology to businesses.

Businesses interested in collaborating with the University of Thrace in the context of exploiting research results, collaborate with the competent executives of the Hellenic Research and Development Council in identifying areas of common interest and are informed about the constantly updated number of research results.

The exploitation of research results is also served by the institutionalized "Regulation for the Management of Intellectual Property Rights", which is part of the "Funding and Management Guide".

1.1.4. Internationalization

Internationalization for the University of Thrace means:

Teaching and research staff with international studies and connections : The University of Thessaloniki was founded in the late 1980s, having the opportunity to attract a critical mass of young, dynamic, internationally trained, multilingual and internationally connected teaching and research staff. Most Departments were established and operated during the 1990s and early 2000s, a period characterized by economic growth and the "brain gain" (gain), with the repatriation of highly qualified academic and research staff from all over the world. The history of the University of Thessaloniki until today has shaped an inherently internationalized learning and research environment.

Education harmonized with the international environment : Undergraduate and postgraduate programs adhere to international standards and adopt the European Credit Transfer System (ECTS). The study programs are interdisciplinary and designed according to international standards and use multilingual bibliography and educational materials. The University of Thessaloniki, as a public university, is constitutionally obliged to offer undergraduate studies

mainly in the Greek language. Starting from 2018-2019, it now offers an increasing number of undergraduate courses in the English language. These courses are addressed to both incoming international and Greek students .

Globally Oriented Education : The design and implementation of English-language study programs that will attract international students to the University of Thessaloniki is a priority of the Foundation. In this direction, summer schools are already being organized, as well as international and joint postgraduate study programs, which serve to consolidate the international extroversion of our academic community.

Increasing number of international students : Every year, the University of Thessaloniki welcomes students from all over the world who visit the University for studies within the framework of the Erasmus + international mobility. It has concluded and maintains active more than 350 bilateral student mobility agreements with more than 250 universities around the world. The University of Thessaloniki currently offers international master's and doctoral programs in specific fields of specialization. It also organizes and hosts summer schools that attract young people from all over the world. During the 2019-2020 academic year, the University of Thessaloniki welcomed a record number of incoming students from 20 different countries around the world.

International network of research groups : The research groups of the University of Thessaloniki participate as partners or coordinators in a number of international research programs. The expansion of the network of research activity is at the heart of our research strategy.

Visiting international scholars and researchers : The academic research groups of the institution seek to attract talents and young scholars and researchers from the international arena. Visiting professors and scholars are integrated into the teaching and research activities of the University of Thessaloniki, in order to achieve mutual educational benefits.

Strengthening the academic community's exposure to the international environment : Reciprocity is at the core of the University of Thrace's internationalization strategy. The mobility of our students and the academic and administrative staff of the Institution is encouraged. The University of Thrace utilizes all available financial tools for the benefit of students and staff to have the opportunity to visit, teach, research and train in universities around the world.

Promoting multilingualism : At the University of Thessaloniki, language proficiency is considered an essential skill for academic development. Through the Foreign Language Center, Greek and other students are provided with the opportunity to expand their knowledge of foreign languages. Specially designed Greek language courses are offered to all foreign students, while courses in English, French, German, Italian and, from the academic year 2020-2021, Asian language courses are also offered , for Greek and foreign students .

Open Access : As a public academic institution, the University of Thessaloniki ensures that all facilities and services offered to domestic students are also available to international students . An effort is made to provide all available information for students in English and Greek.

Parallel activities : At the University of Thessaloniki, social and cultural activities, as well as participatory practices, are at the core of productive learning and knowledge. Foreign students and professors participate in the learning experience, within walking distance of cultural heritage monuments and world-famous tourist destinations. In order to enhance their cultural immersion, students are invited to participate in parallel activities that draw on the rich cultural, athletic, environmental resources of the region (theater, music, sports, outdoor activities, cultural excursions, etc.). Foreign students and visitors are also actively encouraged to participate in projects of common interest and social initiatives of the University of Thessaloniki (environmental policy, refugee, volunteering, etc.).

1.1.5. Artistic groups

The theater group of the University of Thessaloniki "Third Floor" gives students the opportunity to get to know the art of theater, to work as a team and to discover their expressive possibilities through theatrical play and improvisation. The group comes into contact with the art of theater through exercises and games and the participants are encouraged to practice the body, voice, and speech as expressive means and tools in this creative experience. Subsequently, the group chooses a work with which it wishes to engage and begins research work on it (it is customary to present a children's performance at the University's Christmas celebration and one for the wider public before the summer). The group works collectively and experimentally, under the guidance of a director/ theater teacher and is encouraged to propose and explore the material for the final performance through improvisation. The final result is presented to the University community, but also outside it (participation in the 14th Serres University Festival , visit and presentation at the Kassavetia prison , appearances in theatrical venues in the cities). At the same time, the theater-pedagogical team operates, which plans and organizes theatrical play visits, often with an educational goal (e.g. recognition and management of emotions - Roma Support Center) or simply for social/entertainment reasons in places such as schools, orphanages, teacher seminars, etc.

1.1.6. Cultural groups

1.1.6.1. Musical Ensembles of the University of Thessaly

The Musical Ensembles of the University of Thessaloniki (vocal expression group and instrumental ensembles) are composed of students from the Departments of the University. Their goal is to promote the collective musical creation and musical culture of students, mainly through vocal expression. With their artistic activity through the organization of concerts, seminars, music publications, festivals, cultural exchanges, etc., they contribute to the active presence of the University in relation to culture.

1.1.6.2. University of Thessaly Choir

It was founded in 2015 in Volos, where its headquarters are located. Students participate in its classes and all departments of the University from Volos, Larissa, Karditsa, Trikala and Lamia are included in its activities. In 2015, it began its artistic activities, which it continues consistently to this day. The choir's rehearsals take place in the " Skouvara " hall, on the mezzanine (building 3) of the seaside complex, of the University of Thessaloniki.

1.1.6.3. yUTH-Radio

There is a website at the University of Thessaloniki radio under the name yUTH-Radio . The station has been operating since 2013 and is hosted by the Student Association of the Department of Urban Planning and Regional Development Engineering. Students from all Departments and Faculties, as well as any academic member of the University who wishes, participate in the operation of the station. The station's broadcasts are mainly addressed to the student community and the general public, while at the same time, the events and actions of the University are supported and promoted.

1.1.7. Support (Counseling, Access & Disability, Harassment-Bullying)

1.1.7.1. Consulting

The Student Counseling Service of the Laboratory of Psychology and Applications in Education enables students of all Departments of the University of Thessaloniki, if they so wish, to receive psychological support and assistance for their personal difficulties and concerns, as well as to be trained in acquiring skills to manage and solve problems they may encounter.

1.1.7.2. Access and Disability

The aim of the ACCESS service of the University of Thrace is to record the needs of students with disabilities and /or special educational needs (SEND) and their teachers, as well as to inform and support them. Also, an important mission of ACCESS is the operational intervention in the University of Thrace areas with the aim of improving their accessibility for SEND .

Students and lecturers register on the ACCESS electronic platform to express their needs, to be informed and/or to receive support regarding access issues at the University of Thrace. For example, students and lecturers can register on ACCESS in order to inform the Service about obstacles to their access, to request support during their courses or some variation in their exams.

If the deaf students wish to receive support, fellow students take on the role of volunteers with the aim of enhancing the access of their fellow students. Specifically, student volunteers , in collaboration with faculty members, can assist the deaf students in moving around the University, in completing applications, in attending courses, in converting various files to another format, in preparing for exams. Finally, for deaf students of the University of Thrace , the possibility of interpretation in Greek sign language is provided.

In addition to the PWDs , teachers who wish to receive information or support to enhance the access of PWDs can consult the instructions posted on the ACCESS website. Also, if they wish to receive personalized information or support, they can register online on the ACCESS platform. To date, 148 students with disabilities and/or special educational needs are registered with ACCESS , who study in all departments of the University of Thrace.

1.1.7.3. Harassment – Bullying

At UTH, no form of direct or indirect discrimination, victimization , intimidation or harassment is tolerated and the principle of equal treatment is ensured. The University's policy for addressing the above issues aims to develop an academic and working environment in which harassment and intimidation have no place and where all members of the academic community will have the certainty that their problem will be dealt with discreetly and responsibly by the Institution. More information about all Support Services is presented at: <https://www.uth.gr/zo/ypostirixi> .

1.2 . The city of Trikala



Lithaios River with the central pedestrian bridge.

Trikala is a city in Western Thessaly and is the capital of the Trikala Regional Unit. The wider area of Trikala has been inhabited since prehistoric times and the first signs of life in the cave of Theopetra date back to approximately 49,000 BC. Neolithic settlements from 6,000 BC have also been discovered at Megalo Kefalovryso and other locations. The city of Trikala is built on the ancient city of Triikka or Trikki , which was founded around the 3rd millennium BC and was named after the nymph Trikki , daughter of the Pineus or, according to others, of the Asopos river. The city was an important center of antiquity, as Asklepios lived and worked here, who today is the emblem of the Municipality of Triikka .



The statue of Asclepius, the God of Medicine, in a central point of the city.

On the northeastern side of the city of Trikala, the medieval castle dominates, which was built by the Byzantine Emperor Justinian in the 6th^{century} AD on the ruins of the acropolis of ancient Triikka . At its foot lies the old town consisting of the districts of Varousi and Manavika. The former is distinguished by its old mansions, built between the 17th^{and} 19th^{centuries} , and its narrow alleys. In the latter, there are many restaurants and taverns that are a magnet for visitors.



The fortress of Trikala.

The city of Trikala is considered a "smart" city, since it has implemented and is implementing actions such as the driverless bus, smart parking system, smart city platforms, etc. It is also characterized by the widespread use of bicycles for the movement of citizens. It has a great cultural heritage and has highlighted notable artists, such as Tsitsanis , where the Tsitsanis Museum operates in his memory , Kaldaras , Virvos , Mitropanos , etc. The city also has other cultural attractions such as the Ottoman complex of Osman Shah (Mosque) and the Kliafas History and Culture Center .

Trikala is located 20 kilometers away from Meteora, a complex of sandstone rocks outside the city of Kalambaka. The monasteries of Meteora, built on the tops of some of the rocks, constitute the second most important monastic complex in Greece after Mount Athos and have been included in the UNESCO World Heritage List since 1988.



Meteora with its monastic complex.

1.3. The University of Thessaloniki campus in Karyes, Trikala

1.3.1. School - Departments

The city of Trikala is home to the School of Physical Education, Sports and Dietetics (SEFAAD) and hosts the following two Departments of the University of Thessaloniki:

- Department of Physical Education and Sports Science (www.pe.uth.gr).
- Department of Dietetics and Nutrition (www.dnd.uth.gr).

1.3.2. Facilities

The two Departments of the University of Trikala based in Trikala are located: the Department of Dietetics and Nutrition in the southern part of the city, in the Karya area, in a total area of 180 acres, and the Department of Dietetics and Nutrition in the northern part of the city, housed in a 3,000 sq m building, while, at the same time, it also uses spaces such as the amphitheater of the Department of Dietetics and Nutrition in the Karya area.



Photo of a floor plan of the plots and spaces of TEFAA (Source: Google) Earth).



Photo of the facilities and spaces of TEFAA.

2. THE MSc APPLIED KINESIOLOGY IN THE ARMED FORCES AND SECURITY BODIES

2.1. Foundation

The Postgraduate Program has been operating successfully since the academic year 2014-2015 (Government Gazette of establishment 1686/9-7-2013, issue 3). It is a globally unique Postgraduate Program offered by a University Institution and concerns physical fitness and the maintenance of quality of life in the Armed Forces and Security Forces.

The establishment of the EKEDYSA Postgraduate Program is the result of a joint effort and planning of academic executives and senior executives of the Hellenic Army. To our knowledge, it was the first time in Greece where two institutions of different nature, one academic [School of Physical Education, Sports and Dietetics (SEFAAD), University of Thessaloniki] and one military (School of Permanent Non-Commissioned Officers), collaborated in order to establish a commonly accepted Postgraduate Program. The curriculum was drafted based on the proposals of the uniformed executives, which are based on the challenges of the modern operational environment and the maximization of the operational capacity of the Uniformed personnel.

The climate of the time when the EKEDYSA Postgraduate Program was founded was not conducive to the cooperation between Universities and the Armed Forces. It was completely unheard of for a study program to operate within Universities that would bear the terms "Armed Forces" and/or "Security Forces" in its title. Consequently, many and well-coordinated "battles" had to be waged not only at the level of Ministries and Ministers but also in the Senate of the University of Thrace itself, which would also make the relevant decision. The burden fell on the then President of the Department of Military and Security Affairs, Professor Mr. Yiannis Koutentakis, who represented the Department in the Senate of the University of Thrace and who had to provide convincing answers to questions from the members of the Senate.

The decision of the Senate of the University of Thrace to establish this postgraduate program was preceded by months of preparation and planning meetings between officers of the Armed Forces serving at the Permanent Non-Commissioned Officers' School based in Trikala, and officers of the Military Academy of the University of Thrace. These meetings were constructive and laid the foundations for various collaborations not only between the two institutions that continue to this day, but also collaborations with various branches of the Armed Forces and Security Forces.

The SMY executives who envisioned and pioneered the joint effort to establish the EKEDYSA Postgraduate Program were the then SMY Commander, Brigadier General Dimitrios Bikos, and the then Director of Studies of the School, Colonel Themis Angelakis. The corresponding executives from the TEFAA side were the then President, Professor Mr. Yiannis Koutentakis, the Associate Professors Mr. Athanasios Tziamourtas and Yiannis Giakas, the Assistant Professor Mr. Andreas Flouris, as well as the Assistant Researcher Mr. Giorgos Sakkas.

The first Director of the EKEDYSA Postgraduate Program (2014-2019) was the then President and then Dean of the School, Professor Mr. Yiannis Koutentakis, who was then succeeded by the current Director (2019-present) Associate Professor Mr. Andreas Flouris.

According to international literature, physical condition is divided into the part related to motor skills and the part related to health. For the officers of the Armed Forces and Security Forces, health is the cornerstone of success since it is linked to general physical condition which, ultimately, is an important factor of theoretical readiness. Also, individualized good physical

condition is a prerequisite for avoiding injuries during training or during the performance of duties. Given the increased professional demands, such as crisis management, participation in international alliances, etc. , physical and mental adequacy are dominant elements for the effectiveness of Uniformed Officers. Since its first years of operation, the EKEDYSA Postgraduate Program has been recognized by universities in our country and abroad, as well as by Production Schools in Greece from which most of its students come.

The level of demand for the qualifications of EKEDYSA postgraduate graduates is considered very high. The graduates themselves report the very close cooperation that has been developed with the Armed Forces and the Security Forces, as shown by: a) the signing of a memorandum of cooperation with the Permanent Officers' School, b) the signing of a memorandum of cooperation with the 1st ^{Army} (Larissa), c) the recognition of the Postgraduate Program by the Army General Staff as relevant to the military profession (December 2016), d) the visit of the Chief of Army Staff to the facilities of the TEFAA and the Postgraduate Program (2017), e) the organization of three workshops in Larissa (2016, 2017) and Thessaloniki (2017) under the general title "Physical Condition & Quality of Life in the Greek Armed Forces", as well as many other actions.

2.2. Physiognomy

The MSc awards a Postgraduate Diploma (MSc) entitled: "Applied Kinesiology for the Armed Forces and Security Forces" . It is structured in 1 year and 6 months (3 academic semesters), which include courses and the possibility of writing a thesis. The minimum duration for completing the program is 1 year and 6 months. The total number of credit units (ECTS) required is 90 ECTS. The possibility of temporary suspension of studies is provided, which cannot exceed two (2) consecutive semesters. The semesters of suspension of student status are not counted towards the maximum duration of regular studies.

The postgraduate program has been designed in accordance with the quality assurance procedures provided in each case. During their studies, postgraduate students are required to attend postgraduate courses, participate in all educational and research activities, and prepare a postgraduate thesis.

2.3. Vision

Physical exercise as gymnastics or sports is an important physical activity completely connected to the nature and actions of the Armed Forces and the Security Forces. Despite the fact that the evolution of culture and technology and their impact on lifestyle in general led to the decline of this activity in all social strata, in recent years, especially with the understanding of the importance and role of prevention in ensuring health, physical exercise has once again become an important parameter of everyday life. However, in order to achieve the expected health and physical condition results from exercise and sports, these activities should be carried out under the supervision of scientists with special knowledge and skills. A full understanding of the physiology of exercise and the psychology of exercise, as well as the role of proper nutrition, are structural parameters that should be included in the training of specialists involved in the promotion of health through physical exercise.

For the Armed Forces and Security Forces, health is the cornerstone of success since it is linked to general physical condition which, ultimately, is an important factor in theoretical

readiness. Also, individual good physical condition is a prerequisite for avoiding injuries during training or during the performance of duties.

Given the increased professional demands, such as crisis management, participation in international alliances, etc. , physical and mental fitness are key elements for the effectiveness of Uniformed Personnel. Therefore, it is considered necessary to train Armed Forces and Security Forces personnel for physical fitness and to improve performance and quality of life. Without excluding graduates from other scientific areas, the Master's Degree Program "Applied Kinesiology in the Armed Forces and Security Forces" aims to: provide Armed Forces and Security Forces personnel as well as civilian personnel with in-depth knowledge for the optimal physical fitness, performance and quality of life of uniformed personnel. Specifically, this Master's Degree Program provides specialization to graduate scientists:

1. In the application of knowledge of the exercise in the Armed Forces and Security Forces.
2. To promote the health and quality of life of uniformed personnel through established methods of physical activity.
3. Understanding rehabilitation methods and the application of exercise as a means of rehabilitation in the Armed Forces and Security Forces.
4. In the rational nutrition of uniformed personnel.
5. In adapting the actions and procedures of the Armed Forces and Security Forces to various environmental conditions.
6. On psychological strategies for protecting the mental competence of uniformed officers.

The Master of Science (MSc) emphasizes the critical analysis of scientific practices used internationally so that graduates are able to respond to the challenges of the modern business environment.

The vision of the EKEDYSA Postgraduate Program is " **To become an International Reference Model in education for the optimal physical fitness, performance and quality of life of the personnel of the Armed Forces and Security Forces .**"

2.4 . Basic principles

The basic principles that govern the operation of the TEFAA and by extension the EKEDYSA Postgraduate Program are:

- Integrity
- Respect
- Cooperation
- Academic freedom
- Extroversion
- Justice
- Innovation
- Excellence
- Contribution and connection with society
- Meritocracy
- Impartiality
- Transparency
- Democracy

- Preserving the prestige of academic status

2.5. Quality policies

The EKEDYSA Postgraduate Program of TEFAA follows and precisely implements the quality policies of the University of Thrace that have been established by the Quality Assurance Unit (MODIP) of the Institution and are posted:

https://www.uth.gr/sites/default/files/modip/2019/Politiki%20Diasfalissi%20Poiotitas_1260259424.pdf

The quality policy " Aims at the systematic improvement of the quality indicators of all the Institution's units, administrative and academic, at the formation of an environment of incentives and the development of motivation and excellence strategies for students, teachers and administrative staff. This policy is in harmony with its strategic planning, internal and external evaluation reports, the planning and reports of its administrations, and the decisions of the competent bodies. Finally, it proceeds with processes of constant renewal and revision with the ultimate aim of improving its services to students , and its contribution to the promotion of science and research in society ."

2.6. Administration of the Postgraduate Program

The competent bodies for the administration, organization and operation of the Postgraduate Program, in accordance with articles 81-83 of Law 4957/2022, are:

a) The Senate of the University of Thrace has the following responsibilities:

- α) approves the establishment of a postgraduate program or the amendment of the decision to establish the postgraduate program,
- β) approves the extension of the duration of the operation of the postgraduate programs,
- γ) decides to abolish the postgraduate programs offered by the University of Thrace.

b) The Assembly of the Faculty of Economics and Business Administration of the University of Thessaloniki is responsible for the organization, administration and management of the Master's Degree Programme and in particular:

- α) establishes Committees to evaluate the applications of prospective postgraduate students and approves their enrollment in the Postgraduate Program,
- β) assigns the teaching work to the lecturers of the postgraduate program,
- γ) recommends to the Senate the amendment of the decision establishing the Postgraduate Program, as well as the extension of the duration of the Postgraduate Program,
- δ) establishes examination committees for the examination of postgraduate students' theses and appoints the supervisor for each thesis,
- ε) establishes the successful completion of studies, in order to award the title of Postgraduate Diploma,
- στ) approves the report of the MSc, following a recommendation from the Coordinating Committee (CC).

By decision of the Department Assembly, the responsibilities of paragraphs a) and d) may be transferred to the Postgraduate Studies Committee.

c) The Coordinating Committee (CC) of the Postgraduate Program , consisting of the Director of the Postgraduate Program and four (4) members of the Teaching and Research Staff (TRES) of the Faculty of Social Sciences, University of Thessaloniki, who have a relevant field of study to that of the Postgraduate Program and undertake teaching work in the Postgraduate Program. The members of the CC are determined by decision of the Assembly of the Faculty of Social Sciences, University of Thessaloniki.

The CC is responsible for monitoring and coordinating the operation of the program and in particular:

- α) prepares the initial annual budget of the P.M.S. and its amendments, provided that the P.M.S. has resources available in accordance with article 84 of Law 4957/2022, and recommends its approval to the Research Committee of the Special Research Funds Account (ELKE),
- β) prepares the report of the program and recommends its approval to the Assembly of the University of Thessaloniki's TEFAA,
- γ) approves the expenditure of the Master's Program,
- δ) approves the granting of scholarships, whether remunerative or not, in accordance with what is defined in the decision establishing the Postgraduate Program and the Regulation of Postgraduate and Doctoral Studies,
- ε) recommends to the Assembly of the Faculty of Education of the University of Thessaloniki the distribution of teaching work, as well as the assignment of teaching work to the categories of teachers of article 83 of Law 4957/2022,
- στ) recommends to the Assembly of the Faculty of Education of the University of Thessaloniki the invitation of Visiting Professors to cover the teaching needs of the Postgraduate Program,
- ζ) prepares a plan for amending the curriculum, which it submits to the Assembly of the Faculty of Education of the University of Thessaloniki,
- η) recommends to the Assembly of the Faculty of Education of the University of Thessaloniki the redistribution of courses between academic semesters, as well as issues related to the qualitative upgrade of the curriculum.

Emeritus Professors of the Faculty of Economics and Business Administration may participate in the SC, provided that they provide teaching work in the Postgraduate Program. The members of the SC are not entitled to remuneration or any compensation for the performance of the responsibilities assigned to them and related to the performance of their duties.

d) The Director of the Postgraduate Program is selected from among the faculty members of the Faculty of Engineering and Technology of the University of Thessaloniki, with priority given to the rank of Professor or Associate Professor, and is appointed by decision of the Department Assembly for a two-year term, renewable without limitation. The Director of the Postgraduate Program has the following responsibilities:

- α) chairs the SC, draws up the agenda and convenes its meetings,
- β) proposes issues concerning the organization and operation of the Postgraduate Program to the Assembly of the Faculty of Education of the University of Thessaloniki,

- γ) recommends to the Board of Directors and other bodies of the MSc and the University of Thessaloniki issues related to the effective operation of the MSc,
- δ) is the Scientific Director of the program in accordance with article 234 of Law 4957/2022 and exercises the corresponding responsibilities,
- ε) monitors the implementation of the decisions of the bodies of the Postgraduate Program and the Internal Regulations of postgraduate and doctoral study programs, as well as monitoring the execution of the Postgraduate Program budget,
- στ) exercises any other responsibility, which is defined in the decision establishing the MSC.

The Director of the Postgraduate Program is not entitled to remuneration or any compensation for the execution of the responsibilities assigned to him and related to the performance of his duties.

2.6.1. Committees of the MSc.

For the operation of the Postgraduate Program, the Assembly of the Faculty of Education of the University of Thessaloniki appoints, for a term of two (2) years, the Postgraduate Student Selection Committee and the Promotion and Communication Committee. The Assembly may establish additional Committees, where it deems necessary. All proposals or decisions of the committees are approved by the Assembly. The work of the Postgraduate Student Selection Committee consists of the following:

- α) Checking and evaluating all submitted supporting documents.
- β) Checking the relevance of the degree with the subject area of the postgraduate program.
- γ) Testing of language proficiency in a specific foreign language.
- δ) Final ranking of candidates based on the list of Program criteria and proposal to select candidates based on this ranking at the Assembly.

The entire process of promotion and communication of the EKEDYSA Postgraduate Program is coordinated by the Promotion and Communication Committee, which is composed of three (3) faculty members. The members and term of office of the Promotion and Communication Committee are determined by decision of the TEFAA Assembly. Where appropriate, the Promotion and Communication Committee may also be staffed by a student or students who will participate in specific events. The Promotion and Communication Committee is responsible for maintaining and updating the list of media outlets, for the formulation of promotion and communication material, for the coordination and organization of relevant events, as well as for the participation of the EKEDYSA Postgraduate Program and TEFAA in promotion events and will generally direct the communication of the EKEDYSA Postgraduate Program and TEFAA with promotion bodies. In addition, it ascertains the maintenance of the promotion and communication principles of the Postgraduate Program in corresponding actions of its members.

2.7. Personnel

The teaching work of the Postgraduate Program is assigned, following a decision of the Assembly of the Faculty of Education and Training, to the following categories of teachers:

- α) members of the Teaching and Research Staff (DEP), Special Educational Staff (EEP), Laboratory Teaching Staff (EDIP) and Special Technical Laboratory Staff (ETEP) of the

- Faculty of Engineering and Technology or other Departments of the University of Thrace or another HEI or Higher Military Educational Institution (ASEI), with additional employment beyond their legal obligations, if the Postgraduate Program has tuition fees,
- β) Emeritus Professors or retired faculty members of the Faculty of Education and Science or other Departments of the University of Thessaloniki or another HEI,
 - γ) collaborating teachers,
 - δ) appointed teachers,
 - ε) visiting professors or visiting researchers,
 - στ) researchers and special functional scientists of research and technological bodies of article 13A of Law 4310/2014 (Government Gazette A' 258) or other research centers and institutes at home or abroad,
 - ζ) scientists of recognized prestige, who have specialized knowledge and relevant experience in the subject area of the Master's degree.

The assignment of the teaching work of the Postgraduate Program is carried out by decision of the Assembly of the Faculty of Education, following a recommendation from the Postgraduate Program Executive Committee, if one exists, otherwise from the Director of the Postgraduate Program.

The right to supervise theses is granted to the teachers of the above cases a) to f) (in accordance with paragraph 1 of article 83 of Law 4957/2022) provided that they hold a doctoral degree. By decision of the Executive Board of the Postgraduate Program, the supervision of theses may also be assigned to members of the Faculty of Education, the Academic Staff and the Academic Staff of the Faculty of Education, who have not undertaken teaching work in the Postgraduate Program.

Although Law 4957/2022 allows it, no category of teachers is remunerated from the resources of the Postgraduate Program. Also, no remuneration or other benefit is allowed from the state budget or the public investment program. By decision of the Assembly of TEFAA, doctoral candidates of TEFAA or SEFAAD may be assigned auxiliary teaching work, under the supervision of a lecturer of the Postgraduate Program.

Teachers' obligations include:

- adherence to the curriculum,
- writing a detailed description of the course with reference to the objectives, the weekly structure of teaching hours, the suggested bibliography and the requirements of the course (practical exercises, presentations, etc.),
- the posting of educational material in the e- class from the beginning of each lesson,
- completing student attendance records ,
- postgraduate students ,
- conducting exams and selecting topics,
- the correction of written exams and the sending of scores within five (5) days from the date of the exam.

The members of the Faculty of Economics and Business Administration of the University of Thessaloniki who carry out teaching work in the EKEDYSA Postgraduate Program are included in the table below:

No.	FULL NAME	STEP	E-MAIL	PHONE
1	GIAKAS IOANNIS	PROFESSOR	ggiakas@uth.gr	24310-47005
2	DELI CHARIKLEIA	ASSISTANT PROFESSOR	delixar@uth.gr	24310-47011
3	DRAGANIDIS DIMITRIOS	ASSISTANT PROFESSOR	ddraganidis@uth.gr	24310-47078
4	ROYAL LIFE	ASSOCIATE PROFESSOR	vzisi@uth.gr	24310-47017
5	KARATZAFERI CHRISTINA	PROFESSOR	ck@uth.gr	24310-47015
6	KOUTENTAKIS GIANNIS	PROFESSOR EMORONY	y.koutedakis@gmail.com	24310-47056
7	KOMOUTOS NIKOS	ASSOCIATE PROFESSOR	nzourba@uth.gr	24310-47027
8	SAKKAS GEORGIOS	ASSOCIATE PROFESSOR	gsakkas@uth.gr	24310-47022
9	TZIAMOURTAS ATHANASIOS	PROFESSOR	ajamurt@uth.gr	24310-47054
10	TSAKLIS PANAGIOTIS	PROFESSOR	tsaklis@uth.gr	24310-47006
11	TSIMEAS PANAGIOTIS	MEMBER OF THE SEP	ptsimeas@uth.gr	24310-470 67
12	TSIOKANOS ATHANASIOS	PROFESSOR	atsiokan@uth.gr	24310-47053
13	FATOUROS IOANNIS	PROFESSOR	ifaturos@uth.gr	24310-47047
14	FLOURIS ANDREAS	ASSOCIATE PROFESSOR	aflouris@uth.gr	24310-47072
15	HADZIGEORGIADIS ANTONIS	PROFESSOR	ahatzi@uth.gr	24310 - 47009

The Secretariat of the Postgraduate Program is staffed by one (1) administrative employee:

No.	FULL NAME	STEP	E-MAIL	PHONE
1	MARIA KOUTSIANITI	ADMINISTRATIVE SECRETARY	msc@uth.gr	24310-47019

2.8. Facilities

The MSc operates at the Faculty of Engineering and Technology, which has excellent and modern infrastructure and building facilities: four (4) buildings, with a total area of 4000 sq.m. on a plot of land of 150 acres on the Trikala campus . The Trikala campus of the University of Thessaloniki is a very well-organized academic space and has:

- α) Modern library which is constantly being updated,
- β) Office/Branch of ELKE,
- γ) Internship Office,
- δ) Laboratories,
- ε) Video conference room,
- σ) Computer room, and
- ζ) Other infrastructure.

In addition, student dormitories, an indoor gym, and 1000 sq.m. rooms have been planned or are being implemented.

The postgraduate courses are held in the auditorium, in the classrooms, as well as in the laboratories of the Faculty of Economics and Business Administration, which are fully equipped with computers, with all the necessary software, as well as with projection, teleconferencing and distance learning systems. The very valuable and modern laboratory and electronic equipment of the Faculty of Economics and Business Administration, which is currently worth more than

€4,500,000 and is installed in the buildings of the Faculty of Economics and Business Administration, will also be available at the postgraduate course. Where appropriate, and for the conduct of supplementary and/or preparatory courses, it is possible to utilize other classrooms/laboratory spaces as well as practice areas, provided that this does not hinder the educational process of the undergraduate education program. Finally, there is an interface with all the student welfare services of the University of Thessaloniki.



Part of the TEFAA facilities.



Part of the TEFAA facilities.



The TEFAA amphitheater.

2.9. Research Laboratories

The Department has a Research Center that includes five Laboratories as well as three additional independent Laboratories. All research laboratories cover research/scientific purposes and are used to support courses of the study programs (undergraduate, postgraduate), as well as doctoral and postdoctoral research:

1. Center for Research and Evaluation of Physical Performance
 1. Laboratory of Biochemistry, Physiology and Exercise Nutrition
 2. Biomechanics and Ergonomics Laboratory
 3. Environmental Physiology Laboratory
 4. Experimental Physiology & Therapeutic Exercise Laboratory
 5. Coaching Workshop
6. Exercise Psychology and Quality of Life Laboratory
7. Computer Science Laboratory
8. Applied Leisure Sciences Laboratory: Nature, Sports, Arts

2.9.1. Center for Research and Evaluation of Physical Performance

The Center for Research and Evaluation of Physical Performance (CREP) includes five Laboratories which are presented in the following sub -sections. Its purpose is to develop activities related to the biological background of exercise for human health and high-level sports. To achieve this purpose, CREP promotes research and cooperation with other research centers at home and abroad, contributes to the scientific guidance of high-level athletes and participates in informing and educating students on new scientific and technological developments related to the field of human movement biology. Goal: the international recognition of our research and teaching activities.

KEAFA conducts all laboratory courses related to physiology, biochemistry, exercise physiology and environmental physiology, coaching and biomechanics . Through these courses, students participate in the measurement and evaluation of physical performance of both athletes and the general population.

KEAFA conducts basic and applied research to improve physical performance and quality of life. Some of the laboratory research topics are: Environmental physiology issues, occupational heat stress, brown adipose tissue function, diabetes and obesity, effects of exercise on lipid profile and the role of exercise and nutrition in the function of the human body, analysis of factors contributing to muscle contraction, biomechanical analysis of movements in healthy and injured individuals, technical analysis and evaluation of sports movements, effectiveness of training and exercise programs in sports and fitness.

The center evaluates players from football and basketball teams and a large number of athletes from various individual sports (track and field, swimming, cycling, wrestling, etc.). In addition, free-lancers in various sports and physical activities are also evaluated. KEAFA is able to test aerobic capacity, anaerobic capacity, muscle strength and other parameters of human performance (body composition, flexibility, etc.). The evaluation provides information on the type of training that an athlete should follow and the degree of improvement after a specific training intervention. The results of the measurements are used to compare athletes from the same team

and can also be compared with a database of a very large number of athletes from the same sport available to KEAFA.

Director:

Athanasios Tsiokanos , Professor of Biokinetics

Official Gazette of establishment: 180/09/08/2000

Communication:

Center for Research and Evaluation of Physical Performance

T.E.F.A.A., University of Thessaly

Karyes

42100, Trikala

E - mail : ptsimeas @ uth . Gr

Tel .: 24310 47067

2.9.1.1. Laboratory of Biochemistry, Physiology and Exercise Nutrition

The Laboratory's research subjects are:

- Exercise-Induced Muscle Inflammation
- Exercise and Old Age
- Biochemistry and Physiology of Team and Individual Sports
- Evaluation of Training Methods
- Sports Nutrition
- Training and Readiness in Uniform
- Exercise and Obesity
- Exercise in Clinical Populations

The Laboratory aims to:

- Improving the health and performance of young and old
- Increasing the athletic performance of professional and amateur athletes
- Finding ways to increase physical activity
- Providing information on improving health and athletic performance through proper nutrition
- Using diet and exercise to treat chronic diseases



The permanent staff of the Laboratory includes:

- Thanasis Tziamourtas , Professor
- Yannis Fatouros , Professor
- Chara Deli, Assistant Professor
- Dimitris Draganidis , Assistant Professor
- Panagiotis Tsimeas , EEP
- Dimitris Batsilas , EEP
- Niki Syrou, EDIP

Director:

Athanasios Tziamourtas , Professor of Exercise Biochemistry

Web page:

www.smartgroup.edu.gr

Communication:

E -mail: ptsimeas@uth.gr

Tel .: 24310 47067

2.9.1.2. Biomechanics and Ergonomics Laboratory

The Laboratory's research subjects are:

- Motion analysis in patients with anterior cruciate ligament rupture
- Body posture
- Eccentric exercise as a training and muscle fatigue mechanism
- Creating smart traffic analysis tools

The Laboratory aims to:

- Understanding the mechanics of movement
- Scientific support for athletes

Available instruments and systems for motion analysis:

- series optical -electronic motion analysis system with 10 cameras

- Two dynamic floors Bertec 4060-05
- Wireless Electromyograph Myon MA-320 EMG system (Myon AG, Schwarzenberg , Switzerland) with 8 channels
- CYBEX NORM isokinetic dynamometer (jointly with the other KEAFA laboratories)
- Floor ergometer Technogym



The permanent staff of the Laboratory includes:

- Yiannis Giakas, Professor of New Technologies in Motion Analysis
- Thanasis Tsiokanos , Associate Professor of Biokinetics
- Panagiotis Tsaklis , Professor of Biomechanics and Ergonomics
- Themis Tsatalas , EDIP

Director:

Yiannis Giakas, Professor of New Technologies in Motion Analysis

Web page:

www.pe.uth.gr/index.php/erevna/ergastiria/item/92

Communication:

E - mail : ggiakas@uth.gr

Tel .: 24310 47010

2.9.1.3. Environmental Physiology Laboratory (FAME) Lab)

OR research group the FAME Lab (Functional Architecture of Mammals in their Environment) was founded in 2008. Since then, she has participated in >20 research projects funded by the European Union and other international organizations (funding >19 million euros in the last decade), has published >230 scientific articles and has presented her work at more than >310 international conferences.

Lab researchers envision a world in which the vast majority of people understand how the environment affects their lives and plan their goals and activities with the long-term well-being of humanity in mind. Their goal is to show the way in this direction and inspire individuals and institutions to become their companions in creating the world they dream of.

Lab researchers seek to help society understand and adapt to the impacts of environmental factors. They believe that understanding, addressing, and adapting to the factors

that negatively impact health, physical performance, and productivity will undoubtedly accelerate improvements in the quality of life for all people – in a sustainable and equitable way.

The Laboratory's research subjects are:

- Effects and adaptations to exposure to different environmental factors
 - Heat
 - Cold
 - Altitude
 - Dive
 - Missions
 - Space
 - Air pollution
- Cellular function, health and aging
- Occupational heat stress



Director:

Andreas Flouris, Associate Professor of Physiology

Web page:

www.famelab.gr

Communication:

E - mail : aflouris@uth.gr

Tel .: 24310 47029

2.9.1.4. Experimental Physiology and Therapeutic Exercise Laboratory

The Laboratory's research subjects are:

- The mechanisms of muscle function
 - Combining biophysical, biochemical and mechanical methods, our laboratory investigates muscle function and the phenomenon of skeletal muscle fatigue under conditions of chronic pathology in both isolated muscle fibers and myoblasts.

- The combination of different methods allows for direct correlation of observations with the basic interaction mechanisms of sarcomeric proteins.
- The beneficial properties of exercise in chronic diseases
 - In collaboration with the treating physicians, the laboratory implements specially designed exercise programs for patients with chronic diseases, aiming to improve the quality of life with undoubtedly positive results:
 - In the progression of the disease
 - At the level of patient functionality
 - In their health and therefore in their hospitalization rates
 - In their mental health and therefore in their social life
 - In their ability to remain "productive members of society"

The Laboratory aims to:

- Understanding muscle function and especially the parameters that contribute to muscle fatigue or muscle weakness and affect the overall state of health and physical performance.
- Investigation of factors associated with morbidity that in turn lead to muscle atrophy, induce hypomobility and increase the risk of premature death.
- In the prevention and treatment of chronic diseases through specially designed and personalized exercise programs.
- Understanding the mechanisms of muscle dysfunction repair in order to reveal effective interventions to enhance muscle function.



Directors:

Christina Karatzaferi, Professor of Exercise Physiology-Myology

George Sakkas, Associate Professor in Practice in Clinical Populations

Communication:

E - mail : ck @ uth . gr / gsakkas @ uth . Gr

Tel .: 24310 47015 / 24310 47022

2.9.1.5. Coaching Workshop

The purpose of the laboratory is: a) to cultivate and promote the science of coaching through academic and applied teaching and research, b) to contribute to the progress of Greek sports

through scientific support of athletes and coaches and c) to plan, implement and promote actions to increase physical activity and adopt healthy habits with the aim of improving the health and quality of life of the population.

The Laboratory's research subjects are:

- Acute and long-term adaptations of exercise to the various systems of the human body
- Design and implementation of exercise programs to promote health and improve performance
- Assessment of physical fitness in mass and competitive sports
- Exercise in the workplace



The permanent staff of the Laboratory includes :

- Vasilios Gerodimos , Coaching Professor
- Konstantina Karatrاندou , Assistant Professor in Mass and Occupational Sports Coaching

Director:

Vasilios Gerodimos , Coaching Professor

Web page:

<http://traininglab.gr>

Communication:

E - mail : bgerom@uth.gr

Tel .: 24310 47005

2.9.2. Exercise Psychology and Quality of Life Laboratory

The Laboratory's research subjects are:

- Physical Education & Youth Sports
 - Promotion of physical activity
 - Motivation in physical education and youth sports
- Exercise and Health
 - Health Education Programs – Smoking
 - Exercise and Depression / Dementia
- Athletic Performance
 - Attention & concentration
 - Self-talk

- Social role of sports
 - Equality in society
 - Integration through sports



The permanent staff of the Laboratory includes:

- Yannis Theodorakis, Professor
- Athanasios Papaioannou, Professor
- Marios Goudas, Professor
- Antonis Hadjigeorgiadis , Professor
- Nikolaos Dingelidis , Professor
- Nikolaos Komoutos , Associate Professor
- Maria Hassandra , Assistant Professor
- Charalambos Krommydas , Assistant Professor
- Evangelos Galanis, Assistant Professor
- Ioannis Morres , Assistant Professor
- Nadia Philippou, EDIP

Director:

Papaioannou Athanasios, Professor

Web page:

<http://psych.pe.uth.gr>

Communication:

Email : psyllab@uth.gr

Tel .: 24310 47024

2.9.3. Computer Science Laboratory

The Informatics Laboratory was established in order to provide the appropriate academic environment to meet the educational and research needs of the Department of Physical Education and Sports in the field of Informatics and its applications in education and Physical Education. With regard to education, the objectives of the Laboratory are:

- The design and organization of courses and education, information and training programs on topics of Information Technology and Information and Communication Technologies (ICT)
- The design and organization of courses and educational, information and training programs on issues of applications of Informatics and ICT in Physical Education

Regarding research, the Laboratory's objectives are:

- The design, development and evaluation of digital environments for learning Computer Science and ICT subjects
- The design, development and evaluation of digital environments for learning Physical Education subjects
- The design, development and evaluation of digital environments for the promotion of health and physical activity
- The design, development and evaluation of digital educational games
- The study of the effects of existing digital environments on the knowledge, motor skills and physical activity of young people of all abilities

Director:

Marina Papastergiou , Professor of Informatics in Education and Digital Learning Media for Physical Education

Official Gazette of establishment: Official Gazette 1191/22-06-2015

Communication:

E - mail : mpapas@uth.gr

Tel .: 24310 47028

2.9.4. Applied Leisure Sciences Laboratory: Nature, Sports, Arts

The APPLIED LEisure Lab (APPLE LAB) was founded in 2018 to support and cultivate a sense of well-being by combining recreation, sports and the arts with free time.

The study of leisure in a scientific manner in modern society is very important since leisure includes the concepts of leisure, entertainment, fun and play. The Laboratory's approach is structured at three levels: Scientific Research, Educational Programs, Events & Projects.

The Laboratory aims to:

- Research collaboration with academic institutions, laboratories, professional associations.
- Implementation of research proposals, EFOP programs, student exchange
- Organization of leisure events, seminars, conferences, career days
- Carrying out educational trips, visits to sports centers, ski resorts
- Undertaking consulting services, development projects and studies to related bodies
- Writing books, supporting magazines, providing lifelong learning training programs
- Collaboration with government agencies, businesses, associations of the Motorized Recreation market
- Connection with society, through movement, art, culture, and environmental events



The permanent staff of the Laboratory includes:

- Haris Kouthouris , Professor of Leisure Activities Management
- Alexandra Bekiari, Associate Professor of Pedagogy with emphasis on Physical Education
- Vasiliki Zisi, Associate Professor of Physical Activity in the Elderly
- Asterios Patsiaouras , EEP (Applied Teaching in Physical Education and Sports: Special Training in Volleyball)
- Aglaia Zafeiroudi , EEP (Kinetic Recreation: Yoga- Pilates -Contemporary Dance)
- Anastasia Blanthi , EEP (Swimming: Teaching and Special Coaching of Swimming)

Director:

Haris Kouthouris , Professor of Leisure Activities Management

Web page:

www.applelabway.com

Communication:

Email : applelabonline@gmail.com

Tel .: 24310 47004

3. INFORMATION FOR STUDENTS

3.1. Course declarations

Registration for courses is mandatory for each semester. Failure to register by the registration deadline will result in the loss of the opportunity to attend the current semester. In this case, a decision by the Department Assembly, following a proposal from the Academic Council, is required to continue studying.

The deadlines for submitting declarations are announced by the Secretariat of the Postgraduate Program. With this declaration, students acquire the right to participate in the exams of these courses.

Students who have received a grade of five (5.0) or higher in a course are not entitled to re-register and re-examine it.

3.2. Attending courses

Each cycle (duration) of the Postgraduate Diploma (PMS) leading to a postgraduate diploma (PMS) lasts three (3) semesters for full-time study. Attendance at courses is mandatory. For all courses, attendance at least 70% of the lectures held in each semester is required. Absences of more than 30% in a course result in the student failing the specific course. In this case, the student repeats the course.

Registration for courses is mandatory for each semester. Failure to register by the registration deadline will result in the loss of the opportunity to attend the current semester. In this case, a decision by the Department Assembly, following a proposal from the Academic Council, is required to continue studying.

It is possible to expel a student from the postgraduate program, without refund of tuition fees, by decision of the TEFAA Assembly following a relevant proposal from the Student Council, in cases of non-compliance with the following obligations:

- Regular attendance of courses at least 70% of the lectures held each semester.
- Submit the required assignments for each course within the stipulated deadlines.
- To attend the exams.
- To pay tuition fees on the dates specified by the Program Secretariat.
- To respect and abide by the decisions of the bodies of the Departments of the University of Thessaloniki as well as academic ethics.
- Participate in the internal evaluation process of the Master of Science (MSc), by anonymously completing the evaluation questionnaires with objective and academic judgment during the period provided by the MODIP of the University of Thessaloniki (usually given during the last week of classes of each semester).

Only in exceptional cases may an extension of studies be granted for up to one year, following a reasoned decision of the Assembly of the TEFAA.

3.3. Suspension of studies

Postgraduate students may be granted, upon submission of a relevant application, a temporary suspension of studies, which may not exceed two (2) consecutive semesters. During the suspension, the postgraduate student loses his/her student status. The period of suspension does not count towards the maximum duration of regular studies.

3.4. Exams

The evaluation and grading of each course is the exclusive responsibility of the instructor, is carried out completely independently of other courses and is a derivative of the objective assessment of the student's performance in the specific course (assignments, exams, etc.). The evaluation criteria are clearly defined and are listed in the information sheet for each course.

The grading scale for evaluating the performance of postgraduate students is set from zero (0) to ten (10), as follows:

- Excellent (8.5 to 10)
- Very Good (6.5 to 8.5 not included)

- Good (6 to 6.5 not included).

A passable grade is five (5) and above.

In the event that a student fails a course, he or she may retake that course in the September re-examination period. The maximum number of times a student may retake a course is up to three (3) times. If he or she fails to obtain a passing grade in the 3 examination periods, he or she has one more opportunity to retake it, following an application by a three-member committee of faculty members of the University of Thrace, who have the same or a related field of study as the course being examined and are appointed by the Assembly of the Faculty of Education. The instructor in charge of the examination is excluded from the committee.

The examination schedule is published by the Department Secretariat with a relevant announcement on the PMS website. The conditions for participation in the examination of each course are:

- α) his statement to the Secretariat,
- β) the fulfillment of course obligations (e.g. attendance),
- γ) the declaration of the lesson to the teacher, if this has been defined and announced in advance,
- δ) d) the presentation of an academic ID card or other official document (such as police ID card, passport) for identification verification by the invigilators.

Otherwise, students will not be admitted to the exams.

Special care is taken for the oral examination of students with proven special needs prior to their admission to the Institution, in accordance with the procedure defined by the University of Thrace's Special Needs Support Structure .

The examinations are conducted as follows:

- At the beginning of the examination and immediately after the delivery of the questions, candidates may submit clarifying questions to the examiner in charge, provided that he or she accepts it.
- At the beginning of each examination, examinees are required to sign the relevant list issued by the Secretariat. There should be a list for each examination room. On the same list, invigilators also write their own names, as well as the total number of students in the room.
- Examinees must comply with the invigilators' instructions regarding their arrangement in the examination room.
- The consumption of coffee, soft drinks, food, etc. is not permitted in the examination area.
- Smoking is prohibited in the examination area, in accordance with applicable legislation.
- The examination begins with the presentation of the topics. The maximum examination time is two hours or any other time set by the instructor. The examination time cannot exceed the time limit set in the examination schedule.

- Candidates are prohibited from entering the examination room if other candidates have left the room and in any case if more than 15 minutes have passed since the start of the examination. Students who arrive late are not entitled to additional examination time.
- During the exams, no objects other than the subjects, the sealed exam stickers, the pen and any other object/aid (such as calculators, rulers, printed aids, correction fluid) may be on the seats (or in another visible place, such as in a nearby seat, in an open bag) that are useful or have been defined in advance as necessary by the instructor for conducting the exams.
- Candidates must bring all necessary aids to the exams (such as calculators, rulers, printed aids), as specified by the instructor. The use of aids belonging to other candidates is not permitted.
- The use of mobile phones or other devices that allow electronic communication is not permitted during the exams. These devices must be switched off and away from the desks. The appearance of such devices during the exams is automatically considered quasi-use and will result in the examination paper being initialed.
- In the event that invigilators observe that an examinee is acting improperly (e.g. conversations, possession or exchange of notes and other objects, improper body positioning, notes on the benches, facilitating or participating in copying, etc.), they must act, at their discretion, in one of the following ways:
 - α) return to class with verbal observation,
 - β) moving to another location,
 - γ) expulsion from the room and initialing of the written test. In the event of the latter action, the responsible teacher must be informed within a reasonable time (at the latest by the end of the examination process), who, depending on the case, may bring the matter to the Assembly for sanctions against the student.
- It is prohibited for examinees to leave the examination room for any reason before submitting their written examination paper.
- During the examination, no fewer than two examinees are allowed to remain in the examination room.
- Examinees may not hand in their written examination paper and leave the room before at least 15 minutes have passed since the start of the examination (unless another time has been set by the instructor in charge).
- Along with the exam papers, candidates must hand in the questions and any drafts they used. They must also write their name on all forms, questions, exam papers and any drafts.
- The written assignments and topics are kept by the responsible professor for at least two (2) years.

3.5. Scholarships

It is planned to award four (4) excellence scholarships per year of 1,000 euros each to postgraduate students as follows: two scholarships are awarded to the candidates with the highest admission score and two other scholarships to those who obtained the highest score in the 8 courses of the first year (provided that they have successfully completed all courses). The scholarship is awarded only once to each successful candidate. Scholarships are not awarded to students who have been admitted to the postgraduate program without the obligation to pay tuition fees.

3.6. Code of Ethics

The University of Thessaloniki has a Code of Ethics, so that all members of the academic community, teachers, researchers, students and administrative staff, are united in the implementation of the basic principles of ethics and morality. Adherence to the principles of the Code contributes, on the one hand, to the personal improvement of each individual, and, on the other, to the promotion of the quality and the elevation of the prestige of the University.

According to Law 4521/2018, article 23, funded research projects, theses and doctoral theses that, according to the declaration of the scientific director, include research on humans, on material derived from humans, such as genetic material, cells, tissues and personal data, on animals or on the environment, both natural and cultural, are mandatorily submitted for approval to the Research Ethics Committee and the project cannot begin to be implemented at the HEI or the research institution unless it has previously received the relevant approval from this committee. The same applies to research in the social sciences, with observance of the rules of confidentiality, protection of personal data and respect for individuals.

Violation of the provisions of the Code of Ethics constitutes a serious disciplinary offense, which entails the imposition of sanctions. Detailed information on Ethics issues is presented at:

<https://www.uth.gr/panepistimio/thesmika/themata-deontologias>

3.7. Plagiarism prevention service

The copyright of Postgraduate Theses or patent or commercial exploitation rights of the works are determined by relevant decisions of the Ethics Committee of the University of Thessaloniki.

Any kind of plagiarism in coursework, publications or the writing of Master's Theses, fabrication of research data and unscientific behavior in general is prohibited. The Ethics Committee is responsible for informing the students of the Master's Degree Programmes and imposing penalties, where necessary. Detailed instructions on the matter will be issued by the University's Ethics Committee.

No postgraduate thesis is submitted for support unless it has been previously checked by the electronic plagiarism prevention service of the institution's central library.

The University of Thessaloniki, through the Library and Information Center, has secured access to the online plagiarism prevention service (Turnitin), which provides teachers with the ability to check the originality of students' papers and dissertations.

3.8. Use of IT services

The IT Department of the University of Thrace , utilizing Information and Communication Technologies, supports a series of services, so that members of the academic community have at their disposal modern systems and tools to more fully perform their work. The services offered fall into 12 major categories: User Account, Email, File Exchange-Storage, Telephony, Software, e-UTH Services, Administration Applications, Website Hosting , Tele-Training -Teleconferencing, Internet Access-Security, Infrastructure Services, Help Desk.

Detailed information is presented at: <https://it.uth.gr>

3.9. Organization and tools of distance learning

A key element of student-centered learning design is the combination of face-to-face presence and synchronous and asynchronous distance learning (blended). learning). Thus, according to the provisions of article 88 of law 4957/2022, it is possible to teach courses through asynchronous distance learning at a rate of 25%. The combination of different methods favors learning and takes into account the work and family needs of our postgraduate students.

The modern distance learning courses are supported by Microsoft's Office 365 platform, to which the University of Thrace provides access to all postgraduate students. Office 365 is a collection of Microsoft online tools and services, designed for productivity and for effective teaching and collaboration. They provide the possibility of synchronous and asynchronous teaching as well as 1 Terabyte of storage space to each user of the University of Thrace. Details on connecting and using this platform are presented at: <https://it.uth.gr/content/ex-apostaseos-mathimata>.

Also, the digital educational material is uploaded by the lecturers on the platform <https://eclass.uth.gr/> and is continuously available to postgraduate students. The eClass distance learning platform is the unified Electronic Course Management System of the University of Thrace, is oriented towards strengthening the educational process and is supported by the Library and Information Center in collaboration with the Computerization Directorate. Its main goal is the integration of new technologies into the educational process, through the electronic organization, storage and presentation of educational material in digital format, directly accessible from the internet, user management and the creation of user groups for collaborative learning, synchronous and asynchronous communication (teleconference, chat , forum , messages) between instructors and students.

3.10. Course evaluation

The MSc fully implements the evaluation provisions of Law 4957/2022, as follows:

- At the end of each semester, postgraduate students are invited, through an electronic application developed by the MODIP of the University of Thessaloniki, to evaluate all courses/teaching units that have been taught. More specifically, postgraduate students receive a special automated message in their Institutional account with relevant instructions along with the single-use links and unique codes for each course/teaching unit of the semester they attended, where they are invited to complete a relevant questionnaire anonymously and remotely.
- The questionnaire is structured in the following sections: Course, Instructor, Laboratory. Free field for developing comments.
- The anonymity of the participants in the evaluation is fully ensured by MODIP and the relevant assurance is provided, as no identification data is retained and at the end of the process any correlation data is deleted.
- No instructor receives the evaluation result before the end of the courses, the administration of the exams and the delivery of the grades. The MODIP system then sends the evaluation result electronically to each instructor and the average of all courses is displayed for comparison.

At the end of the term of office of the Executive Board, under the responsibility of the Director, a detailed report is prepared on the research and educational work of the MSc, as well

as its other activities, with the aim of upgrading studies, better utilization of human resources, optimization of existing infrastructure and the socially beneficial use of the MSc's available resources. The report is submitted to the Assembly of the Faculty of Social Sciences.

3.11. Library and Information Center

The Library and Information Center of the University of Thessaloniki operates as a single unit of academic services and consists of the Central Library in Volos with Branches at the level of Schools or groups of Schools in the cities of Volos, Larissa, Trikala, Karditsa and Lamia, which are administratively subordinate to the Central Library and form a single entity with it, both in terms of human resources and in terms of development policy and management of financial resources.

The mission of the Library and Information Center is to strengthen and support the educational and research activities of the Foundation, its contribution to the retrieval, management, provision and dissemination of specialized information to the broader national and international community, and its substantial participation in various activities for education and culture.

The Library and Information Center offers its services to all members of the academic community of the University, as well as to interested members of the external public, provided that it has the necessary financial and human resources. Detailed information on the structure, operation and all current services (on-site and electronic) are provided through the website: http://www.lib.uth.gr/LWS/el/el_hp.asp.

3.12. Preparatory courses and seminars

If deemed necessary by students and lecturers, before the start of the program, the Postgraduate Program offers preparatory courses in certain subjects in order to fill gaps and contribute to the homogeneity of the cognitive background of the student participants as much as possible. There is also the possibility of participating in scientific lectures of the Department as well as in educational visits to businesses, as well as domestic and foreign institutions.

3.13. Erasmus

The mobility of the Program's students takes place within the framework of the European Erasmus Program. Plus . Interested students have the opportunity to choose between Teaching Mobility at one of the foreign Institutions provided for by the bilateral agreements in force for the Department (the relevant list is posted on the website of the University's International Relations Office, http://erasmus.uth.gr/docs/Greek/Spoudes/Xores/IRO_LARISSA/TEFAA.pdf) or Internship Mobility at a relevant Institution after acceptance by the Institution. The procedure for student mobility is described below:

3.13.1. Application

The process begins with the student expressing interest . This is done by submitting an application to the International Relations Office. In addition to completing the application form, the process also includes sending supporting documents, such as an identification document, a CV and a language proficiency certificate, the minimum level and language of which are determined by the University to which the interested person wishes to attend.

3.13.2. Selection

The International Relations Office in turn communicates the students' applications to the Department and sends folders with the relevant documents. The Department Assembly then proceeds to approve those students who meet specific criteria such as their language level and performance. The International Relations Office announces the results on its website and informs the Host University about the mobility of the students who can proceed to the next stage of the process.

3.13.3. Before mobility

At least 30 days before the planned mobility date, students proceed to complete the Learning Agreement through the relevant OLA (Online Learning Agreement) platform. Learning Agreement). The Learning Agreement specifies the courses that they will attend at the Host University and is signed by the Academic Coordinators of both Universities. The student submits to the International Relations Office necessary documents and information such as the IBAN of their bank account, a copy of the European Health Insurance Card, a copy of the insurance policy for accidents or any liabilities to third parties and a copy of the Mobility Agreement. At the same time, the Host University will inform the students of any further procedures that need to be followed, such as their registration in the University's Study Program.

Students are also invited to take the exam online in the assessment language determined by the respective bilateral agreement through the OLS (Online Language Support) platform. Language Support).

Upon completion of this process, the International Relations Office can proceed with the disbursement of the first installment of the scholarship. The first installment amounts to 80% of the total amount and is deposited into the students' accounts before their departure.

3.13.4. During mobility

If, for any reason, there is a change in the provisions of the Learning Agreement, it is possible to update it. This is done after communication and consultation with the Academic Coordinators, who will need to re-sign the document, while the International Relations Office is also informed of the changes.

3.13.5. After mobility

At the end of the mobility and within one month, students must send to the International Relations Office, a) the detailed grades of the courses they attended at the Host University and b) confirmation of the period of attendance of the courses. In the case of an internship, a certificate from the supervisor at the institution/University will be required, which will certify the period of time for which the student was employed as well as a description of their duties and performance. The Learning Agreement is also updated and signed one last time by the student and the Academic Coordinators.

The Department Assembly, following actions by the Academic Coordinator who has received copies of the above, proceeds to recognize the period of study or internship. The certificates of these recognitions are sent to the International Relations Office, which has already proceeded to disburse the remaining amount of the scholarship, for the closure of the students' files.

3.14. Professional prospects

For executives of production schools as well as Armed Forces and Security Forces organizations, attending this postgraduate program contributes to the acquisition of academic and military leadership qualifications, provides opportunities to conduct cutting-edge research, and supports development ambitions.

For civilians, attending this postgraduate program provides in-depth knowledge to provide effective counseling on physical fitness issues for health promotion. It provides expertise and specialization in issues related to uniformed and civilian personnel. This specialized knowledge provides a significant advantage at a time when many employers are increasing educational requirements for new positions.

Therefore, the title from this postgraduate program is particularly useful for your career development. It will significantly enhance your CV in any application you make:

- α) Regarding applications concerning your further development in academia (e.g., applications for master's and doctoral degrees), the title from this postgraduate program is recognized by all bodies and services in Greece, Europe, and internationally as an equivalent master's degree.
- β) Regarding applications regarding your work in production schools as well as organizations of the armed forces and security forces, for example, this specific postgraduate program is recognized / awarded points by the Armed Forces.
- γ) Regarding applications concerning your work in institutions and businesses where physical fitness and health require special attention (e.g., public and private educational institutions, rehabilitation centers, sports clubs and organizations, sports programs for all, ergometric centers, gyms, tourism businesses, camps, etc.), the title from this Master of Science (MSc) is recognized by all institutions and services in Greece, Europe, and internationally as an equivalent postgraduate title.

It is important to mention that, according to the European Commission, 90% of jobs now require increased digital skills, due to the penetration of technologies in every area of our lives. Attending this postgraduate program will offer you security in the competitive work environment, as it includes strengthening students' digital skills (e.g., creating presentations and extensive instructions for the correct execution of a speech to an audience with the assistance of technical means).

For individuals seeking employment or wishing to change their work environment, the title from this postgraduate program is particularly useful and will significantly enhance your CV in any application you make. This postgraduate program is more relevant to (a) production schools as well as armed forces and security forces organizations, as well as (b) organizations and businesses where physical fitness and health require special attention (e.g., public and private educational institutions, rehabilitation centers, sports clubs and organizations, sports programs for all, ergometric centers, gyms, tourism businesses, camps, etc.). However, the title from this postgraduate program is recognized by all public and private organizations and services in Greece, Europe and internationally as an equivalent postgraduate title. In addition to the expertise it provides in providing physical fitness counseling for health promotion, students are also taught

courses that include strengthening digital skills, leadership, public speaking, and developing critical thinking. All of these are important qualifications that can support career aspirations and open paths to additional employment opportunities.

For people who are already working, the title from this postgraduate program will significantly enhance your CV and your development opportunities. For example, for executives of production schools and organizations of the armed forces and security forces, this specific postgraduate program is recognized / awarded points . The same applies to teachers in primary and secondary education as well as to other public and private institutions (in Greece, Europe and internationally) where physical fitness and health require special attention. In public and private institutions with different activities, the title from this specific postgraduate program is recognized as an equivalent postgraduate title.

Below is an analysis of a series of advantages that the EKEDYSA Postgraduate Program provides to the students who attend it:

Finding a rewarding job: Obtaining a master's degree often leads to faster career advancement and promotion to higher-paying positions. This is one of the main reasons for the 25% increase in the number of graduate students in Greece in recent years, as it becomes apparent that a degree is not enough to find a rewarding job.

Knowledge and Expertise: Studying this postgraduate program provides in-depth knowledge to provide effective counseling on physical fitness issues for health promotion. It provides expertise and expertise in issues related to uniformed and civilian personnel. This specialized knowledge provides a significant advantage at a time when many employers are increasing educational requirements for new positions.

Emphasis on practical knowledge: The delivery of the courses has been created in such a way as to meet modern needs by using new technologies and the internet as much as possible. The aim is for the students' time in our facilities to be a time of practical training and interactivity with the teachers as well as the laboratories.

Flexible teaching: The MSc is structured in 1 year and 6 months (3 academic semesters). During the first two semesters, students come to Trikala a total of 4 times and attend online courses. During the 3rd ^{semester}, students choose whether they want to prepare a Master's Thesis or attend additional courses.

3.15. Linking teaching with research

In the EKEDYSA Postgraduate Program, teaching and research are linked as follows:

- It is the natural continuation of undergraduate studies as it deepens knowledge with new knowledge, methods, as well as new techniques, skills and tools.
- It enables postgraduate students and lecturers to participate in research programs and projects that are already being implemented, or have been included in submitted research proposals, as well as those that will follow in the future at TEFAA.
- All theses are research-based with original topics.

- It provides opportunities for the development of both basic and applied research, as due to the content and structure of the proposed program, a strong connection with research is foreseen.
- The content and instructors of the courses taught are updated at regular intervals according to the most recent developments in the field of research regarding the subjects taught.
- At regular intervals, special lectures, technical presentations and other events are held at the TEFAA facilities, regarding new techniques, methods, new products and processes that are being developed internationally.
- A significant portion of the tuition fees is allocated for research purposes, to cover the costs of postgraduate theses by postgraduate students.
- A significant percentage of the assignments given during the courses have an experimental/research component.
- The use of the modern laboratories of the Faculty of Engineering and Technology is greatly utilized by postgraduate students.
- Postgraduate students are given the opportunity to take part in international and national conferences by presenting their research work, thus encouraging their participation in research activity.
- Products of the lecturers' research are discussed during the courses and serve as a springboard for discussion and the initiation of new research opportunities in which postgraduate students are invited to participate.
- By organizing and carrying out educational visits in Greece and abroad and by engaging in contact with them, the possibility of professional rehabilitation for postgraduate students increases.
- The significant research activity of the Department of Physiology and Pathology is closely linked to its educational mission. There is a direct connection between the postgraduate program and research in specific scientific fields through the involvement of students, as well as in the research programs implemented in the Department. Furthermore, all research projects that have been prepared or are in progress cover scientific subjects that are in complete relevance to the subjects taught by the faculty members of the Department, teach in the postgraduate program EKEDYSA, and are included in its Curriculum. The Department supports the continuous adaptation of the content of the courses taught based on new scientific developments in the fields it treats and the active connection of its students with the research labor market.

3.16. Supervision of student progress

In the Study Regulations of the Postgraduate Program, there is the institution of the Professor Advisor who undertakes the guidance of the student on any matter concerning his or her studies, as well as the support, as far as possible, in various personal issues related to his or her studies. Among other things, the Professor Advisor informs and advises the students on the courses and procedures of the Postgraduate Program, the research process, the utilization of the infrastructure of the department's laboratories, as well as on the services offered by the University of Thessaloniki to its students, as far as the research process is concerned. For each postgraduate student, a faculty member is appointed by the Academic Council as the Professor Advisor. The

Professor Advisor is responsible for monitoring and controlling the general course of the postgraduate student's studies.

4. STUDY PROGRAM

The language of part or all of the courses as well as the preparation of the thesis is Greek, but it may also be another official language of the European Union.

4.1. Level 7 Learning Outcomes and Credits

4.1.1. Knowledge

The students of the EKEDYSA Postgraduate Program receive highly specialized knowledge regarding: the application of exercise knowledge in the Armed Forces and Security Forces, the promotion of the health and quality of life of uniformed personnel through established methods of physical activity, the understanding of rehabilitation methods and the application of exercise as a means of rehabilitation in the Armed Forces and Security Forces, the rational nutrition of uniformed personnel, the adaptation of the actions and procedures of the Armed Forces and Security Forces to various environmental conditions, as well as psychological strategies for protecting the mental adequacy of uniformed personnel. In providing all this knowledge, emphasis will be placed on the critical analysis of scientific practices used internationally in order for graduates to be able to respond to the challenges of the modern operational environment.

4.1.2. Skills

Students of the EKEDYSA Postgraduate Program acquire specialized problem-solving skills required in research, innovation and the use of advanced systems to develop new knowledge and processes and to integrate knowledge from different fields on the impact that exercise has on performance, health and quality of life in the Armed Forces and Security Forces (exercise physiology , exercise biochemistry, nutrition, biomechanics , environmental physiology, psychology, etc.).

4.1.3. Capabilities

The students of the EKEDYSA Postgraduate Program learn to operate in modern processes and work environments that require specialized knowledge and innovative procedures such as the adaptation of the actions and procedures of the Armed Forces and Security Forces to various environmental conditions, or the psychological strategies required to protect the mental competence of uniformed personnel. Also, the assumption of responsibility for the transfer of knowledge and the creation of a new culture for the optimal physical competence, performance and quality of life of uniformed personnel.

4.2 . Course program for the Postgraduate Diploma

During their studies, postgraduate students are required to attend postgraduate courses, participate in all educational and research activities. There is also the option of preparing a postgraduate thesis or replacing it with postgraduate courses.

The Study Program is completed by attending 90 credit units (ECTS) of which 60 ECTS in specialized courses and 30 ECTS either from the preparation of the research thesis or from attending additional specialized courses. Thus, during the first two semesters, the credit units arise from the attendance and successful examination of courses (4 in each semester). For the third semester there are two options:

- Master's Thesis (30 ECTS)
- Attendance of 4 courses (30 ECTS)

Overall, successful completion of the MSP involves one of the following two cases:

- (1) Attendance and examination in 8 courses (4 in the 1st semester and 4 in the 2nd semester, of which 3 are mandatory and 5 are elective) and preparation of a Master's Thesis (in the 3rd semester).
- or
- (2) Attendance and examination in 12 courses (4 in the 1st semester, 4 in the 2nd semester, 4 in the 3rd semester, of which 3 are compulsory and 9 are elective).



The student may complete an equivalent number of credit units (ECTS) of courses and prepare his/her research thesis at collaborating institutions through the Erasmus + program. A prerequisite is the relevance of the courses to the subject of this Master's degree.

Each semester of study lasts 13 full weeks and corresponds to a workload of 30 credit points (ECTS), which are distributed between the taught courses and the thesis.

The organization of the educational process of the Postgraduate Program is carried out through a combination of lectures with physical presence as well as a blended system. learning) lectures using synchronous and asynchronous distance learning methods.

The University of Thrace's infrastructure for supporting distance learning programs includes Microsoft's Office 365 platform. Office 365 is a collection of Microsoft online tools and services designed for productivity and effective teaching and collaboration. They provide the ability to deliver synchronous and asynchronous teaching as well as 1 Terabyte of storage space to each user at the University of Thrace.

The digital educational material is uploaded by the lecturers on the platform <https://eclass.uth.gr/> and is continuously available to postgraduate students. The digital assessment of students conducted by the MODIP of the University of Thrace includes questions that also cover the digital assessment material.

The courses are held at the Faculty of Education and Research of the University of Thessaloniki in person from Tuesday to Sunday for one week during the first and last month of each semester. The rest of the time, the courses are held in a blended system . learning) lectures using synchronous and asynchronous distance learning methods. Specifically, during the 1st^{semester} , students :

- Week 1: During September they attend classes at the TEFAA University of Thessaloniki for one week (Tuesday-Sunday).
- Week 2: During October they attend blended classes learning) lectures using synchronous and asynchronous distance learning methods.
- Week 3: During November they attend blended classes learning) lectures using synchronous and asynchronous distance learning methods.
- Week 4: During December, they attend classes at the TEFAA University of Thessaloniki for one week (Tuesday-Sunday).
- Examination: In January, they are examined in the courses they attended.

Accordingly, during the 2nd^{semester} , students :

- Week 1: During February, they attend classes at the TEFAA University of Thessaloniki for one week (Tuesday-Sunday).
- Week 2: During March they attend blended classes learning) lectures using synchronous and asynchronous distance learning methods.
- Week 3: During April they attend blended classes learning) lectures using synchronous and asynchronous distance learning methods.
- Week 4: During May, they attend classes at the TEFAA University of Thessaloniki for one week (Tuesday-Sunday).
- Examination: In June, they are examined in the courses they attended.



The courses follow the above program, unless otherwise decided by a relevant decision of the Department Assembly. The duration of the teaching hour is set at 45 minutes with a 15-minute break. Each course of a semester includes 12 two-hour lectures with a combination of attending lectures and workshops in person, synchronous distance education lectures, as well as asynchronous distance education lectures. The use of asynchronous distance education methods does not exceed twenty-five percent (25%) of the credit units of the Master of Science (MSc).

If deemed necessary, before the start of the program, the Postgraduate Program offers preparatory courses in certain subjects with the aim of filling gaps and contributing to the homogeneity of the background of the students participating in the program.

There is also the possibility of participating in seminars and scientific lectures of the Department, as well as in educational visits to businesses and other domestic and foreign institutions.

Teaching and exams in the Postgraduate Diploma are conducted in Greek or English, while the bibliography and articles cover Greek and international sources. In special cases, such as the invitation of a lecturer from a foreign university, teaching is conducted in English.

The start of classes in each semester is usually in the 2nd decade of September (for the 1st Semester courses) and in the 2nd decade of February (for the 2nd Semester courses). Immediately after the 13th week of classes, the examination period lasts one week. The exams and online meetings are usually held on Saturdays and Sundays, to serve working postgraduate students, unless otherwise decided after the approval of the program by the Department Assembly, upon the recommendation of the Director of the Postgraduate Program.

The Executive Committee of the Postgraduate Program, following a relevant recommendation from the Director of the Postgraduate Program, approves the academic calendar, which includes all dates related to both the conduct of courses and examinations, as well as the defense of theses and the swearing-in ceremonies of the Postgraduate Program.

In total, the Master's Degree includes eighteen (18) courses and to obtain the degree, either eight (8) courses and a master's thesis, or twelve (12) courses are required. The detailed course schedule per semester is as follows:

DETAILED SYLLABUS

(CODE)	ECTS	Lessons	Y/N
First Semester (2 H + 2 E from those offered)			
601	7.5	Evaluation and statistical methods	Y
602	7.5	Communication and leadership skills	Y
604	7.5	Environmental physiology	E
605	7.5	Motor control and learning techniques – intelligent technologies	E
508	7.5	assessment and prescription for the healthy population	E
	30	← semester total	
Second Semester (1 Y + 3 E from those offered)			
616	7.5	Systematic review of the literature	Y
611	7.5	Overuse and abuse of the human body	E
612	7.5	Biomechanics – ergonomics and occupational safety in the Armed Forces	E
614	7.5	Nutrition and uniforms	E
615	7.5	Exercise physiology and coaching	E
513	7.5	Metabolic diseases and exercise	E
516	7.5	Muscle physiology – function and plasticity	E
	30	← semester total	
3rd Semester (Thesis or 4 credits from those offered)			
WITH	30	Master's thesis	E
or			
701	7.5	Physical activity, motor function and quality of life in old age	E
702	7.5	Applied psychology	E
503	7.5	New technologies in motion analysis	E
505	7.5	Exercise and obesity	E
506	7.5	Biochemistry of exercise	E
507	7.5	Musculoskeletal injuries and rehabilitation	E
	30	← semester total	

Note: M = mandatory course, E = elective course.

4.3. Course content

The detailed course outlines can be found in the Appendix of this Study Guide. The basic content of the courses of the EKEDYSA Postgraduate Program is presented below.

4.3.1. Semester A

4.3.1.1. Evaluation and statistical methods (code: 601 – compulsory course)

The course "Evaluation and Statistical Methods" will focus on the basic concepts of evaluation and statistics. It will present the concepts of validity and reliability and will analyze the design of a simple survey as well as the verification of the validity and reliability of its results using statistics. The course will also cover the concept of a research hypothesis involving a dependent variable and discuss its testing with statistical analyses. Finally, the course will cover a series of statistical analyses where one or more dependent variables are used. The main purpose, finally, of the course is to implement and practice all of the above with statistical software.

4.3.1.2. Communication and leadership skills (code: 602 – mandatory course)

The course "Communication and Leadership Skills" will focus on the basic concepts of presenting research data as well as the knowledge and skills required to write a master's thesis. The course will address issues of ethics, communication skills, data presentation, and thesis writing using platforms and databases. This course will cover concepts such as "professionalism in the workplace", "SWOT analysis-goal setting", and "Effectively finding a paid position". Finally, the course guides students for the next step in their career (career coaching).

4.3.1.3. Environmental physiology (code: 604 – elective course)

The course "Environmental Physiology" will focus on the biological basis of the physiological adaptations of the organism exposed to different environmental factors (heat, cold, altitude, seabed, space, pollution, toxicants, etc.). The course will also provide practical knowledge on the application of the principles of exercise physiology in different environmental conditions. It will cover issues of adapting safely to the environment of different selected activities as well as the promotion of safe exercise and physical activity in different environmental factors. Finally, the course will analyze in depth issues of protecting the health of workers in different environmental factors.

4.3.1.4. Motor control and learning techniques – intelligent technologies (code: 605 – elective course)

The course "Kinematic Control and Learning Techniques - intelligent technologies", aims to understand the mechanisms of Kinetic Control, at the level of cerebral, kinetic and cognitive functioning. The organization of adapted kinetic learning techniques, to maximize cognitive and kinesiological performance in the multiple fields of application of the armed forces. An introduction to retraining technologies of kinetic control and learning is attempted. Practical training in the modern equipment of the Biomechanics Laboratory of TEFAA and KETEATH and analysis of biomechanical and neuro -physiological data.

4.3.1.5. Exercise assessment and prescription for the healthy population (code: 508 – elective course)

Upon successful completion of the course, the student will be able to monitor an individual's health and potential risks before implementing a physical fitness assessment protocol and an exercise program. He/ she will also know the main physical performance assessment tests and will be able to organize and perform the protocols used to assess each physical ability. Finally, he/she will be able to interpret the results of each test and prescribe the appropriate exercise for the further improvement of each individual physical ability, as well as the general physical condition of healthy individuals.

4.3.2. Semester B

4.3.2.1. Systematic review of the literature (code: 616 – mandatory course)

The course covers the basic concepts of Systematic Literature Review so that students can learn to evaluate scientific data and, by extension, apply them in their practice. Upon successful completion of the course, the student will be able to have the required background to understand the content of systematic literature reviews. Specifically, students will be informed about the basic principles of systematic literature review and will learn to carry out systematic literature reviews.

4.3.2.2. Overuse and Abuse of the Human Body (code: 611 – elective course)

The course "Overuse and Abuse of the Human Body" will focus on the student's understanding of the term "overuse" during physical exercise, as well as the epidemiology, pathophysiology and possibilities for its prevention. Subsequently, the student will delve into the term "abuse" in various conditions and the effect that this can have on the functioning of the human body. A significant part of the lectures is related to the knowledge of avoiding overuse injuries and the systematic strain of the human body. Finally, the course aims to connect the student's acquired scientific knowledge with practice (i.e. the instructions and application of exercise), within the framework of the patient's therapeutic treatment and in collaboration with the treating physician.

4.3.2.3. Biomechanics – ergonomics and occupational safety in the Armed Forces (code: 612 – elective course)

The course "Biomechanics - ergonomics and occupational safety in the Armed Forces", aims to understand modern methods of Ergonomics, Ergonomic design and analysis of human movement. It includes the latest methodological developments in the field of automatic optoelectronic kinematic systems, wireless electromyography, dynamometry through dynamometers and pressure platforms, virtual reality and robotics. It includes practical training in the modern equipment of the Biomechanics Laboratory of TEFAA and KETEATH and analysis of biomechanical data. Understanding the design and proper use of different types of equipment to increase efficiency and safety in the workplace.

4.3.2.4. Nutrition and Uniforms (code: 614 – elective course)

The course will allow students to understand basic knowledge about macronutrients and trace elements, as well as the effect of the lack or excessive intake of some of these elements on human health. It will also provide the knowledge required so that students can evaluate cases of eating disorders and factors that promote fluctuations in body weight, as well as develop techniques for shaping good practices in nutrition.

4.3.2.5. Exercise Physiology and Coaching (code: 615 – elective course)

The course "Exercise Physiology and Coaching" will focus on basic issues of cardiovascular, respiratory and musculoskeletal exercise physiology, as well as exercise-induced energy metabolism. It will also focus on the basic principles of exercise planning and periodization for regular athletes and on basic training models for the armed forces and security forces. After completing the course, students will be able to understand the basic principles of designing muscle strengthening, functional training, muscle power, endurance and mobility programs for regular athletes, as well as the basic principles of prevention and diagnosis of overtraining.

4.3.2.6. Metabolic diseases and exercise (code: 513 – elective course)

This course will enable the student to understand the pathophysiology of various metabolic diseases as well as to connect the theoretical knowledge of previous sciences with practice. It will also present the role that exercise plays in the prevention and treatment of metabolic diseases. Finally, the course will analyze the factors that are related to metabolism during exercise and which are important for a better quality of life.

4.3.2.7. Muscle Physiology – Function and Plasticity (code: 516 – elective course)

This course will present the mechanism of skeletal muscle function, the factors that contribute to the maintenance and proper functioning of the muscular system and the long-term effects of exercise on the human muscular system. It will also convey to students the causes and characteristics of dysfunctions of the muscular system and how appropriate muscle loading can be used as a means of maintaining health and preventing diseases or as a means of rehabilitation from them. Finally, it will allow students to connect the scientific knowledge they have acquired with practice (i.e. the instructions for the application of exercise), within the context of the patient's therapeutic treatment and in collaboration with the treating physician.

4.3.3. Semester C

4.3.3.1. Physical activity, motor function and quality of life in the elderly (code: 701 – elective course)

, motor functionality and quality of life in the elderly" focuses on basic concepts of the scientific field of gerontokinesiology , such as functional fitness , social and psychological functionality. The benefits of physical activity in all dimensions of functionality are presented, as well as their relationship with quality of life. Directions are given for further study in these areas, while basic methodological issues in the design and conduct of research in older people are presented. Finally, the practical use of specific tools for assessing psychological functionality and functional fitness is presented , as well as the specialized principles for designing exercise programs for the elderly. At the end of the course, a workshop is held , in which students work in groups to prepare presentations on the most recent developments in research on topics related to the modules of the course.

4.3.3.2. Applied Psychology (code: 702 – elective course)

The course "Applied Psychology" aims to provide an understanding of the basic theories, research, and applications of psychology and social psychology in relation to participation in physical activity and human performance. More specifically, (a) it aims to provide the student with an understanding of the theoretical approaches related to exercise and the psychology of performance, (b) to have the knowledge that will allow him to develop an informed opinion and critical thinking on the issues of the psychology of physical activity and human performance, (c) to have an understanding of the application of psychological principles to exercise and performance, and finally, (d) to be able to design and implement psychological skills development programs.

4.3.3.3. New Technologies in Motion Analysis (code: 503 – elective course)

This course provides students with the opportunity to understand modern methods of human movement analysis. This includes the latest methodological developments in the field of automatic optoelectronic kinematic systems, wireless electromyography, dynamometry through dynamic floors and pressure platforms, virtual reality and robotics. The course also includes practical training in the modern equipment of the Biomechanics Laboratory as well as analysis of biomechanical data.

4.3.3.4. Exercise and Obesity (code: 505 – elective course)

The course aims to help students understand the etiology and prevalence of obesity, as well as to learn about the factors that favor its development, to understand and practice the procedures for assessing obesity, to understand the economic dimensions of the obesity problem, to understand the long-term effects of exercise on human metabolism, to understand the factors that promote a sedentary or active lifestyle, to learn about the clinical implications of obesity, to understand the goals and how to design an exercise program for an obese person, to understand the goals and how to design a diet for an obese person and the interaction with exercise and other interventions, to understand the public health policies that must be followed to address obesity.

4.3.3.5. Biochemistry of Exercise (code: 506 – elective course)

This course will enable the student to understand the basic principles of endocrinology and biochemistry and how they relate to exercise. It will also contribute to connecting theoretical knowledge of endocrinology and biochemistry with practice. By attending the course, the student will be able to understand which factors are related to metabolism during exercise and are important for performance as well as to understand the long-term effects of exercise on human metabolism.

4.3.3.6. Musculoskeletal System Injuries and Rehabilitation (code: 507 – elective course)

This course will allow students to understand the loads that the human body receives during the performance of sports activities and their contribution to the development and creation of an injury or pathology. Also, the course will cover the types, types and healing processes of sports injuries as well as the identification of the causative factors of sports injuries and the application of their prevention techniques during the activity. Finally, the course will convey to students the general principles of applications of the science of Physiotherapy for all types of sports injuries (muscular, ligamentous, tendon, osteochondral, nervous, etc.), so that in collaboration with specialists (Physical Therapists) they can organize the reintegration team into sports activity.

4.4. Postgraduate Diploma Thesis

Students may choose to write a thesis in the 3rd semester. The thesis must be clearly research-based, on a topic related to one of the courses of the Master of Science (MSc), and must be publicly defended before a three-member examination committee (1 supervisor and 2 faculty members) appointed by the Assembly of the Faculty of Social Sciences, following a relevant recommendation by the Director of the MSc. The members of the Three-Member Examination Committee must have the same or a related scientific specialty as the subject of the MSc and the thesis.

A thesis that, according to the declaration of the Supervisor, includes research on humans, on material derived from humans, such as genetic material, cells, tissues and personal data, on animals or on the environment, both natural and cultural, is mandatorily submitted for approval to the Department's Research Ethics Committee and cannot be implemented at the University of Thessaloniki without first receiving the relevant approval of this committee. The same applies to research in the social sciences, with observance of the rules of confidentiality, protection of personal data and respect for individuals.

The presentation of the Master's Thesis is publicly defended, before the Three-Member Examination Committee on a date and place determined by the Department Assembly, upon recommendation of the Director of the Master's Program. Following its approval by the Committee, it is mandatorily posted on the website of the Institutional Repository of the University of Thrace <http://ir.lib.uth.gr> and of the Master's Program.

In exceptional cases, if there is an objective weakness or a serious reason (illness, absence abroad , etc.), it is possible to replace the supervisor or member of the Three-Member Examination Committee following a decision by the Director of the Postgraduate Program and the approval of the Examination Committee.

4.4.1. Procedure for submitting the thesis for examination

The Diploma Thesis preparation guide for its writing and structure is posted on the MSc website, which specifies, among other things: the length, font, writing style and anything else related to its structure, as well as a schedule for its corrections.

After taking up the topic of the Thesis and over a period of at least one academic semester, having had a constructive collaboration between the postgraduate student and the thesis supervisor, when the supervisor deems that the thesis is complete, he gives his consent for the postgraduate student to submit it for review and evaluation. Subsequently, the postgraduate student communicates with the members of the advisory committee, who may request any clarifications or corrections. After completing the above procedure, the postgraduate student submits his thesis to the Secretariat of the MSc in electronic format.

After the above is completed, the supervising professor and the postgraduate student jointly complete and sign the form "INTRODUCTORY REPORT ON COMPLETION OF GRADUATE/DISCIPLINARY THESIS AND SUBMISSION FOR EXAMINATION" of the University of Thrace, as provided for by the Quality Assurance System. The dissertation together with the above form must be delivered to the Secretariat of the Postgraduate Program at least ten (10) days before the presentation date.

The examination and grading of the theses is carried out by the members of the three-member examination committee, after the oral presentation and support of the topic by the postgraduate student, by completing the relevant form "GRADING OF THE DIPLOMATIC THESIS", where the substantive specifications of the work are evaluated at a rate of 60%, the formal specifications at a rate of 20% and the oral presentation at a rate of 20% of the total score. Each examiner signs the relevant form. The final grade of the thesis is obtained from the average of the scores of all 3 examiners. The above relevant form in the original form is delivered under the responsibility of the supervising professor directly to the Secretariat of the Postgraduate Program.

In the event that the student did not receive a passing grade in the oral presentation of the Diploma Thesis, he/she may be called once more for this examination in a subsequent period,

upon his/her request. If he/she fails a second time, the student requests a new topic in the same area in order to be examined at a future time.

After successful defense and incorporation of any corrections, the candidate submits electronic copies of the Thesis to the Secretariat of the Postgraduate Program and to the Library. The Department Secretariat does not complete the stages of awarding the corresponding academic title unless it first receives from the candidates a certificate of submission of the Master's Thesis from the institution's Library. Under the responsibility of the central library of the University of Thessaly, all [these works are published in the institutional repository of the University](http://ir.lib.uth.gr/handle/11615/1) <http://ir.lib.uth.gr/handle/11615/1>.

4.5. Completion of studies

A postgraduate student is considered to hold the Postgraduate Diploma from the moment he/she has fully completed his/her obligations. In order to take part in the graduation ceremony, he/she must have:

- Successfully complete the course of study, as provided for by the Curriculum.
- Must have submitted their Academic ID.
- He should have no pending issues with the library.
- Have settled pending financial matters.

The grade of the Postgraduate Diploma (MPD) for students who complete a Postgraduate Thesis is derived from the weighted average of the MPD courses and the Postgraduate Thesis (the weighting is done by the credit units of the courses and the thesis) and is calculated, with an accuracy of two decimal places, in the following way: the grade of each course and the thesis (where applicable), is multiplied by the corresponding number of credit units (ECTS) and the sum of the products is divided by the minimum number of credit units required to obtain the MPD, which is 90. The calculation of the MPD is described in the following equation:

$$BMI \text{ Grade} = (Course \text{ Grade } 1 \times ECTS \text{ Course } 1 + Course \text{ Grade } 2 \times ECTS \text{ Course } 2 + \dots + Master's \text{ Thesis Grade} \times ECTS \text{ Master's Thesis}) / \text{Total Number of ECTS BMI}$$

The graduation ceremony for postgraduate students is held by the Rector's Authorities, in the presence of the Director of the Postgraduate Program and the President of the Department. The graduation ceremony is determined by a decision of the Rector's Council.

4.5.1. Postgraduate Diploma in Specialization

The MSc awards a Postgraduate Diploma (MSc) entitled: "Applied Kinesiology in the Armed Forces and Security Forces" (*MSc in Fitness and Wellbeing for Military and Security Forces*).

The format of the Master's Degree, and the ceremony of the oath, are determined in the regulations of the institution. For the format of the Diploma Supplement, the decision of the Rector's Council of its 224th /17-10-2008 meeting and the provisions of the Ministry of Education Φ5/89656/B3/13-8-2007 apply.

5. TUITION FEES

The MSc is self-financed and its main source of funding will be the tuition fees of postgraduate students, which amount to €3,900 per postgraduate student for the entire cycle of each study cycle. The aforementioned tuition fee amount may be reduced, following a relevant decision by the competent bodies of the Ministry of Education and Science and the University of Thessaloniki, if it is deemed that the income of the MSc from other sources is sufficient for the needs of the MSc. The aforementioned does not concern students who are exempt from tuition fees under the provisions of article 84 of Law 4957/2022.

Tuition fees are paid in three (3) equal installments at the beginning of each semester. Delaying payment of the tuition fee installment beyond 30 days prevents students from participating in the exams. Tuition fees are not refunded after the start of classes in each academic year.

5.1. Free tuition

According to article 86 of Law 4957/2022, registered students of the Postgraduate Program may study for free, if tuition fees are required, provided that they meet the legal financial or social criteria. A prerequisite for granting the right to study for free due to financial or social criteria is the fulfillment of the requirements for excellence during the first cycle of studies, which corresponds at least to the possession of a grade equal to or higher than seven and a half with an excellent grade out of ten (7.5/10), provided that the evaluation of the basic qualification presented for admission to the Postgraduate Program has been carried out according to the ten-point evaluation scale of domestic HEIs, otherwise this criterion is applied proportionally according to the respective evaluation scale, provided that the qualification presented has been granted by a foreign Institution.

The total number of students who study for free may not exceed the number corresponding to thirty percent (30%) of the total number of registered students per academic year. If, during the numerical calculation of the number of beneficiaries of exemption from tuition fees, a decimal number results, it is rounded to the nearest whole unit. If the number of beneficiaries of exemption exceeds the percentage herein, the beneficiaries are selected in descending order until the number is completed.

The submission of applications for free tuition at the Postgraduate Program takes place after the completion of the student admission process to the Postgraduate Program and within a period of time determined by the Postgraduate Program itself.

A postgraduate student who meets the condition of paragraph 1 of article 86 of Law 4957/2022 is entitled to free tuition, provided that the following criteria apply:

- α) the average of the sum of the taxable incomes of the last two (2) financial years of all the family members of the applicant for exemption from tuition fees, namely the applicant himself, his parents, regardless of whether they file a joint or separate tax return, and his siblings up to twenty-six (26) years of age, provided that they are single and have their own taxable income within the meaning of article 7 of Law 4172/2013 (Government Gazette A' 167), does not exceed seventy percent (70%) of the national median disposable equivalent income, according to the most recently published data of the Hellenic Statistical Authority (ELSTAT), if the applicant has not reached the age of twenty-six (26) and is single or has not entered into a civil partnership,

- β) the average of the applicant's individual taxable income of the last two (2) financial years does not exceed one hundred percent (100%) of the national median disposable equivalent income, according to the most recently published data of EL.STAT., if the applicant has reached the age of 26,
- γ) the average of the sum of the taxable income of the last two (2) financial years of the applicant for exemption from tuition fees and of his or her spouse or cohabitant, provided that he or she is married or has entered into a cohabitation agreement, regardless of whether they submit a joint or separate tax return, does not exceed one hundred percent (100%) of the national median disposable equivalent income, according to the most recently published data of ELSTAT.

If the applicant for the exemption has not reached the age of 26 and is a child of a three-child or large family or a child of a single parent or an orphan of at least one (1) parent or a person with a disability or a member of a household with a person with a disability, he/she may request a half (50%) exemption from the obligation to pay tuition fees, provided that the average in paragraph a) of paragraph 4 of article 86 of Law 4172/2013 exceeds seventy percent (70%) and does not exceed one hundred percent (100%) of the national median equivalent disposable income.

The examination of the criteria for exemption from tuition fees is carried out by the Assembly of the Faculty of Education and Training of the University of Thessaloniki and a reasoned decision is issued to accept or reject the application.

The possibility of exemption from the obligation to pay tuition fees is provided exclusively for studying in one (1) postgraduate program organized by a domestic university.

The above does not apply to third-country citizens.

6. ANNEX – COURSE OUTLINES

Semester A courses

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	601	SEMESTER OF STUDIES	A
COURSE TITLE	Methods Evaluation and Statistics		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Andreas Flouris	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_149		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. It focuses on the basic concepts of evaluation and statistics. 2. It introduces the concepts of validity and reliability. 3. Analyzes the design of a simple survey as well as the verification of the validity and reliability of its results using statistics. 4. Understands the concept of a research hypothesis involving a dependent variable and connects its testing with statistical analyses. 5. Knows a range of statistical analyses where one or more dependent variables are used. 6. It applies statistical analyses through practical training of all of the above with statistical software.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills:

- Competence regarding the content of knowledge
- Ability to apply scientific knowledge
- Ability to transfer knowledge

COURSE CONTENT

- Introduction to Research Methodology
- Inductive statistics and research hypotheses – sample determination
- Introduction to Statistics. Measurement concepts and measures of central tendency
- Basic operations in SPSS
- Estimation and correlation tools
- Testing for differences between two groups on a dependent variable
- Differences in a dependent variable between three or more groups
- ≥ 1 dependent variables and ≥ 2 independent variables of discrete type
- Testing for differences in a group between two measurements of an independent variable
- Repeated measurements on a dependent variable
- Predicting the values of a dependent variable
- Non-parametric tests
- Applied statistics for validity and reliability testing

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
TEACHING ORGANIZATION	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload (hours)</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>36</td></tr> <tr> <td>Preparation for class and literature study-analysis</td><td>110.5</td></tr> <tr> <td>Studying for exams</td><td>39</td></tr> <tr> <td>Examination</td><td>2</td></tr> <tr> <td></td><td></td></tr> <tr> <td>Total course</td><td>187.5</td></tr> </tbody> </table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	110.5	Studying for exams	39	Examination	2			Total course	187.5
Activity	Semester workload (hours)														
Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (100%) which includes: ▪ Development Questions ▪ Problem Solving														

RECOMMENDED BIBLIOGRAPHY

- Papaioannou and Zourbanos (2015). Applied statistics for validity and reliability testing. ISBN-13: 978-960-9935-08-1. DISIGMA Publications.
- Vincent & Weir (2012). Statistics in Kinesiology. 4th Ed. ISBN-13: 9781450402545. Human Kinetics.

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	602	SEMESTER OF STUDIES	A
COURSE TITLE	Communication and leadership skills		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	George Sakkas	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_150		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. It focuses on the basic concepts of presenting research data as well as the knowledge and skills required for writing a master's thesis. 2. Understand ethical issues, communication skills, data presentation and thesis writing using platforms and databases. 3. He knows concepts such as "professionalism in the workplace", "SWOT analysis-goal setting", and "Effectively finding a paid position". 4. Understand what are the important issues for the next step in their career coaching).
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Introduction to the principles of research and academic ethics ▪ Library Use - Databases - Bibliographic Software End Note (Informatics Laboratory) ▪ Using Word, Excel, Powerpoint Point , and dissemination actions (website, videos, blogs) (Informatics Laboratory) ▪ Life Skills I (Body Language, Avoiding Harassment, Workplace Professionalism, Anger Management) ▪ Life Skills II (Time management, SWOT analysis - goal setting) ▪ Communication Skills (Negotiation Techniques, Character profiling , Leadership , motivation) ▪ Oral presentation I – (elevator pitch, corridor pitch, casual meeting pitch, pechakucha) ▪ Oral presentation II - (thesis defense, conference presentation) ▪ Applying for Funding, Writing a Research Proposal ▪ Thesis Writing ▪ Effectively finding a paid position (Application, CV, Interview) ▪ What next ? (Career Coaching
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TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Oral intermediate presentation (40%) which includes: ▪ Self-presentation of resume (elevator) pitch) in video format ▪ Body language in video format II. Final oral presentation (60%) which includes: ▪ Presentation of a research article in person														

	▪ Communication skills and uses of Power presentation platform Point - in person.
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RECOMMENDED BIBLIOGRAPHY

▪ S. Olivier and L. Fishwick Qualitative Research in Sport Sciences: Is the Biomedical Ethics Model Applicable? Volume 4, No. 1 – http://www.qualitative-research.net/fqs-texte/1-03/1-03olivierfishwick-e.htm, 2003 ▪ https://www.public.gr/product/books/english/economics/management/goal-setting/prod453026/ ▪ https://www.epixeiro.gr/article/82509 ▪ https://www.pechakucha.com/
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COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	604	SEMESTER OF STUDIES	A
COURSE TITLE	Environmental physiology		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Andreas Flouris	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_157		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. It focuses on the biological basis of the physiological adaptations of the organism exposed to different environmental factors (heat, cold, altitude, seabed, space, pollution, toxicants, etc.). 2. Has practical knowledge of applying the principles of exercise physiology to different environmental conditions. 3. Knows issues of adapting safely to the environment of different selected activities as well as the promotion of safe exercise and physical activity in different environmental factors. 4. He has in-depth knowledge of employee health protection issues in different environmental factors.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Impact of environmental factors on health, performance and productivity ▪ Exposure to hot environments and acclimatization ▪ Exposure to cold environment and acclimatization ▪ Fluid balance - Loss and production of water in the body - Fluid replacement instructions - Hydration level assessment ▪ Radiation, chemical agents, air pollution ▪ Electromagnetic radiation: biological effects, legislation, measurements and management ▪ Environment and cognitive ergonomics: mental function, vigilance and machine operation ▪ Cold water immersion: exercise, performance and survival ▪ Diving physiology and hyperbaric environment ▪ Altitude medicine and physiology ▪ Flight physiology ▪ Introduction to disaster theory and disaster medicine ▪ Space physiology: muscle atrophy, exercise, health and performance

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning																
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.																
TEACHING ORGANIZATION	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload (hours)</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>36</td></tr> <tr> <td>Preparation for class and literature study-analysis</td><td>70.5</td></tr> <tr> <td>Individual work</td><td>40</td></tr> <tr> <td>Studying for exams</td><td>39</td></tr> <tr> <td>Examination</td><td>2</td></tr> <tr> <td></td><td></td></tr> <tr> <td>Total course</td><td>187.5</td></tr> </tbody> </table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	70.5	Individual work	40	Studying for exams	39	Examination	2			Total course	187.5
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Lectures	36																
Preparation for class and literature study-analysis	70.5																
Individual work	40																
Studying for exams	39																
Examination	2																
Total course	187.5																
STUDENT EVALUATION	I. Written final exam (80%) which includes: ▪ Short Answer Questions ▪ Multiple Choice Test ▪ Problem Solving																

	▪ Case study II. Written assignment (20%) which includes: ▪ Case study
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RECOMMENDED BIBLIOGRAPHY

▪ Human Environmental Physiology. Authors: Mike Tipton and Igor Mekjavic. Routledge, 2014. ▪ Advanced Environmental Exercise Physiology. Author: Stephen Cheung. Human Kinetics Publishers, 2010. ▪ Military Quantitative Physiology: Problems and Concepts in Military Operational Medicine (Textbooks of Military Medicine). Borden Institute (US) (Editor). Office of the Surgeon General (US) 2012. ▪ Performing in Extreme Environments. Author: Lawrence E. Armstrong. Human Kinetics , 2000. (Translated into Greek: Ch. Karatzaferi, Telethrion , 2011, ISBN10: 9608410932).

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	605	SEMESTER OF STUDIES	A
COURSE TITLE	Motor control and learning techniques – intelligent technologies		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Panagiotis Tsaklis	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_180		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands the mechanisms of Motor Control, at the level of cerebral, motor and cognitive function. 2. He knows the organization of adapted motor learning techniques, to maximize cognitive and kinesiological performance in the multiple fields of application of the Armed Forces and Security Forces. 3. It possesses technologies for retraining motor control and learning. 4. He has experience from internships in the modern equipment of the Biomechanics Laboratory of the Faculty of Biomedical Engineering in the collection and analysis of biomechanical and neuro -physiological data.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge

- Ability to transfer knowledge

COURSE CONTENT

- General information about measurements in the field of neurobiology
- Central Nervous System and organization of Motor Control
- Peripheral Nervous System and organization of Motor Control
- Motor learning and retraining techniques
- Neurobiology and control of central and peripheral fatigue
- Biofeedback techniques and applications
- Static control techniques and applications
- Exergames , virtual reality, video games and motor learning
- Mechanical assistive technology in movement retraining
- Robotic systems and exoskeletons to maximize movement
- Mental training
- Simulation training and learning mechanisms

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
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Total course	187.5														
STUDENT EVALUATION	I. Written final exam (100%) which includes: ▪ Development Questions ▪ Problem Solving														

RECOMMENDED BIBLIOGRAPHY

- Rose Debra J. (1998). Motor learning and motor control. UNIVERSITY STUDIO PRESS.
- Shumway – Cook, Woollacott H Marjorie (2000). Motor Control. DIMITRIOS A. SIOKIS & CO. EE

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	508	SEMESTER OF STUDIES	A
COURSE TITLE	assessment and prescription for the healthy population		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Chariklia Deli	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_182		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. It checks an individual's health and potential risks before implementing a fitness assessment protocol and exercise program. 2. Knows the main tests for evaluating physical performance. 3. He/she can organize and execute the protocols used to evaluate each physical ability. 4. He can interpret the results of each test and prescribe the appropriate exercise to further improve each individual physical ability, as well as the general physical condition of healthy individuals.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Health screening and categorization of potential risks ▪ Pre-exercise assessment ▪ Body Composition Assessment (I) ▪ Body Composition Assessment (II) ▪ Cardiorespiratory Fitness Assessment – Maximal Tests ▪ Cardiorespiratory Fitness Assessment – Submaximal Tests ▪ Muscular Endurance Assessment ▪ Muscle Strength Assessment ▪ Flexibility Assessment ▪ Basic principles and guidelines for developing exercise programs for health ▪ prescription for healthy populations (I) ▪ prescription for healthy populations (II)
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TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning																		
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.																		
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Individual work	20																		
Studying for exams	39																		
Examination	2																		
Total course	187.5																		
STUDENT EVALUATION	I. Written final exam (70%) which includes: ▪ Multiple choice questions ▪ Role and stakeholder analysis in a short case study ▪ Solving problems related to quantitative data of a project, time, cost ▪ Comparative evaluation of theory elements																		

	II. Individual Assignments (30%)
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RECOMMENDED BIBLIOGRAPHY

- ACSM's Guidelines for Exercise Testing and Prescription, 10th Edition. Walters Kluwer . Philadelphia , 2018.
- Evaluation and design of exercise programs. ACSM. Paschalidis Publications. Athens, 2015.
- Notes will be provided.
- Scientific articles will be provided.

Semester B courses

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	616	SEMESTER OF STUDIES	A
COURSE TITLE	Systematic review of the literature		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHING RESPONSIBLES	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Petros Dinas	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_199		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Knows the basic concepts of Systematic Literature Review. 2. Can evaluate scientific data and, by extension, apply it to his/her practice. 3. Understands the content of systematic literature reviews. 4. Conducts systematic literature reviews.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Introduction to Systematic Literature Review
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▪ Research hypothesis and search for studies with databases ▪ Selection of eligibility criteria and Selection of studies ▪ Data export ▪ Risk of bias for cross-sectional and epidemiological studies ▪ Risk of bias for randomized studies ▪ Data synthesis, tables and graphs ▪ Meta -analysis 1: Interpretation, Principles, Models and Methods ▪ Meta -analysis 2: Heterogeneity, subgroup analysis, statistical terminology ▪ Meta -analysis 3: Practice with RevMan Software ▪ GRADE analysis ▪ Writing a Systematic Review of the Literature ▪ Summing up

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Lectures	36														
Preparation for class and literature study-analysis	110.5														
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Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (60%) which includes: ▪ Multiple choice questions PubMed database (10%) III. Task 2: Extracting data from eligible studies (15%) IV . Task 3: Bias check of eligible studies (15%) <i>A prerequisite for the grade of the assignments to count is that the performance in the final exam must be at least 49% or higher.</i>														

RECOMMENDED BIBLIOGRAPHY

- Cochrane Handbook for Systematic Reviews of Interventions:
<https://training.cochrane.org/handbook/current>
- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA):
<https://www.prisma-statement.org>
- The course will also be supported by relevant published articles of systematic literature reviews by the instructor via eClass and email.

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	611	SEMESTER OF STUDIES	B
COURSE TITLE	Overuse and abuse of the human body		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Christina Karatzaferi	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_155		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands the term " overuse " during physical exercise, as well as its epidemiology, pathophysiology and possibilities for prevention. 2. It delves into the term "abuse" under various circumstances and the effect it can have on the functioning of the human body. 3. He knows how to avoid overuse injuries and systematic strain on the human body. 4. Connects the scientific knowledge he has acquired with practice (i.e. instructions and exercise implementation), within the context of the patient's therapeutic treatment and in collaboration with the treating physician.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Overtraining Syndrome: Introduction-Diagnosis-Management ▪ Overuse -Strain Syndrome : Introduction-Diagnosis-Management ▪ Myalgic Encephalomyelitis (ME) or Chronic Fatigue Syndrome (CFS) ▪ Muscle Strength Laboratory ▪ Circadian Rhythm Sleep Disorders ▪ The Soldier's Heart and the Effort Syndrome ▪ Ionizing Radiation - Acute Radiation Syndrome. ▪ Agent Orange Syndrome Orange syndrome ▪ Mining Diseases – Silicosis, Sleeping Sickness and Lung Disease ▪ Torture Syndrome – Post-Traumatic Stress ▪ Gulf Syndrome ▪ Case Study Recap and Discussion

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (100%) which includes: ▪ Solving a case study) related to lectures														

RECOMMENDED BIBLIOGRAPHY

▪ Hunter's Diseases of Occupations, tenth edition Hardcover – 29 Oct. 2010 by Peter J Baxter (Editor), Tar-Ching Aw (Editor), Anne Cockcroft (Editor), Paul Durrington (Editor), J Malcolm Harrington (Editor) Publisher: CRC Press; 10 edition (29 Oct. 2010), Language: English, ISBN-10: 0340941669, ISBN-13: 978-0340941669 ▪ Overuse Syndromes of the Upper Limb and Their Management: Physical Therapy Management Principles Paperback – 6 Jan. 2020 by Nihar Ranjan Mohanty (Author)
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Publisher: Scholars' Press (6 Jan. 2020) Language: English, ISBN-10: 613892049X, ISBN-13: 978-6138920496

- Overtraining Syndrome in Athletes: A Comprehensive Review and Novel Perspectives Hardcover –2020, by Flavio Cadegiani (Author) Publisher: Springer; 1st ed. 2021 edition (23 Oct. 2020), Language: English, ISBN-10: 3030526275, ISBN-13: 978-3030526276

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	612	SEMESTER OF STUDIES	
COURSE TITLE	Biomechanics – ergonomics and occupational safety in the Armed Forces		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Panagiotis Tsaklis	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_147		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands modern methods of Ergonomics, Ergonomic design and human movement analysis. 2. He is aware of the latest methodological developments in the field of automatic optoelectronic kinematic systems, wireless electromyography , dynamometry through dynamometers and pressure platforms , virtual reality and robotics. 3. He has experience, through internships, in the use of modern equipment at the Biomechanics Laboratory of the Faculty of Engineering and in the analysis of biomechanical data. 4. Understands the design and proper use of different types of equipment to increase efficiency and safety in the workplace.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge

- Ability to apply scientific knowledge
- Ability to transfer knowledge

COURSE CONTENT

- General about measurements. Transformation from time to frequencies
- Dynamometry , force floors and pressure systems
- Modern measuring instruments for gait analysis and Energy cost of walking
- Dynamometry and gait analysis (laboratory - measurements)
- Gait of people with foot problems (flat feet, diabetes , etc.). Diagnostic footograpy and creation of orthotics .
- Electrical activity of the muscle. Electromyography Laboratory measurements
- Ergonomics, ergonomic factors and Anthropometry
- Ergonomic analysis, manual handling of loads, musculoskeletal strains and Carpal Tunnel Syndrome
- Working in a seated position , computer workstation and visual display screens
- Physiology of work, energy expenditure and muscular work during work
- Occupational Health and Safety, Personal Protective Equipment and effects during physical activity
- Psychosocial factors and work

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Total course	187.5														
STUDENT EVALUATION	I. Written final exam (100%) which includes: ▪ Development Questions ▪ Problem Solving														

RECOMMENDED BIBLIOGRAPHY

- Panagiotis V. Tsaklis (2005). General principles of ergonomics and preventive physiotherapy, University Studio Press ; ISBN: 960-12-1452-6
- Robertson GE, Caldwell G, Hamill J, Kamen G and S Whittlesey (2004). Research Methods in Biomechanics. Human Kinetics.
- Kirtley C (2006). Clinical gait analysis, theory and practice. Elsevier
- Rose J and JG Gamble (2006). Human Walking (3rd Edition). Lippincott Williams & Wilkins

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	614	SEMESTER OF STUDIES	B
COURSE TITLE	For food and uniforms		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Athanasios Tziamourtas	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_146		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands basic knowledge about macronutrients and trace elements, as well as the effect of a lack or excessive intake of some of these elements on human health. 2. It can evaluate cases of eating disorders and factors that promote fluctuations in body weight, as well as develop techniques for shaping correct nutritional practices.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ General information about nutrients, vitamins, minerals ▪ Balanced diet (food pyramids, etc.) ▪ Weight gain/loss (Diets and side effects)
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- Laboratory – Measurement of Resting Energy Expenditure
- Anorexia – bulimia – Malnutrition – impact on health and performance
- Food Quality and Hygiene – Food Storage and Preservation
- Vitamins and essential minerals for military personnel
- Nutritional supplements and exercise
- Survival – Outdoor Nutrition – Nutritional Support for the Injured
- Anabolic steroids – effect on health and performance
- Replenishment of fluids, carbohydrates, fats and trace elements
- Metabolomics and Exercise

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (60%) which includes: ▪ Multiple choice questions ▪ Role and stakeholder analysis in a short case study ▪ Comparative evaluation of theory elements II. Review Work (40%)														

RECOMMENDED BIBLIOGRAPHY

Recommended Bibliography:

- American Dietetic Association's Handbook of Food and Nutrition, Roberta Larson Duyff Irene Koidou, Sofia Publishing , 2014
- Clinical Dietetics and Nutrition with Pathology Elements, Antonis Zampelas , Paschalidis Medical Publications, 2011

Related scientifically magazines :

- British Journal of Sports Medicine
- Medicine & Science in Sports & Exercise
- Military Medicine
- Military medical research
- Annual Review of Nutrition
- Advances in Nutrition
- International Journal of Behavioral Nutrition and Physical Activity
- American Journal of Clinical Nutrition
- Journal of the Academy of Nutrition and Dietetics
- Nutrition Research Reviews

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	615	SEMESTER OF STUDIES	B
COURSE TITLE	Exercise physiology and coaching		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Chariklia Deli	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_156		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. He knows basic issues of cardiovascular, respiratory and musculoskeletal exercise physiology, as well as exercise-induced energy metabolism. 2. Understands the basic principles of exercise planning and periodization for tactical athletes and basic training models for the armed forces and security forces. 3. Understands the basic principles of designing muscle strengthening, functional training, muscle power, endurance and mobility programs for regular athletes, as well as the basic principles of preventing and diagnosing overtraining.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

- Introduction to Exercise Physiology – Musculoskeletal System and Exercise
- Cardiorespiratory system and exercise
- Energy metabolism and exercise
- Principles of exercise program design – Periodization concepts
- Exercise models for the armed forces and security forces
- Physical fitness assessment of regular athletes
- Principles of designing exercise programs for muscle strengthening
- Principles of designing alternative exercise programs using non-traditional means
- Principles of designing exercise programs for the development of muscular strength
- Principles of designing exercise programs for the development of cardiorespiratory fitness
- Principles of designing exercise programs for developing flexibility
- Principles of designing exercise programs for mobility development
- Overtraining and exercise-induced inflammation

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
TEACHING ORGANIZATION	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload (hours)</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>36</td></tr> <tr> <td>Preparation for class and literature study-analysis</td><td>70.5</td></tr> <tr> <td>Individual work</td><td>40</td></tr> <tr> <td>Studying for exams</td><td>39</td></tr> <tr> <td>Examination</td><td>2</td></tr> <tr> <td>Total course</td><td>187.5</td></tr> </tbody> </table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	70.5	Individual work	40	Studying for exams	39	Examination	2	Total course	187.5
Activity	Semester workload (hours)														
Lectures	36														
Preparation for class and literature study-analysis	70.5														
Individual work	40														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (60%) which includes: ▪ Development Questions ▪ Problem Solving II. Individual work (40%)														

RECOMMENDED BIBLIOGRAPHY

- Alvar BA , Sell K , Deuster PA. NSCA's essentials of tactical strength and conditioning. Human Kinetics, Champaign, IL, USA, 2017.
- Haff GG, Triplett NT. Essentials of strength training and conditioning / National Strength and Conditioning Association, 4th ed. Human Kinetics, Champaign, IL, USA, 2016.
- Chandler TJ, Brown LE. Conditioning for Strength and Human Performance. Wolters Kluwer/ Lippincott Williams & Wilkins, Baltimore, MD, USA, 2008.
- ACSM's Advanced Exercise Physiology, 2nd ed. Wolters Kluwer/ Lippincott Williams & Wilkins, Baltimore, MD, USA, 2012.
- Fatouros IG, Hatzinikolaou A. Weight Training: Execution, Teaching, Safety and Organization of Exercises. Publications Telethrio , Athens , 2011.
- Kenney WL, Wilmore JH, Costill DL Physiology of Sport and Exercise. 7th Ed . Human Kinetics . Champaign , IL.

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	513	SEMESTER OF STUDIES	B
COURSE TITLE	Metabolic diseases and exercise		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Athanasios Tziamourtas	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_116		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands the pathophysiology of various metabolic diseases as well as connecting theoretical knowledge of previous sciences with practice. 2. Present the role that exercise plays in the prevention and treatment of metabolic diseases. 3. Analyze the factors that are related to metabolism during exercise and which are important for a better quality of life.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Diabetes mellitus

▪ Diabetes mellitus ▪ Diabetes mellitus ▪ Kidney failure ▪ Kidney failure ▪ Sleep disorders – apneas and hypopneas ▪ Metabolic diseases of muscle (McArdles disease etc.) ▪ Muscular dystrophy ▪ Metabolic syndrome - obesity ▪ Metabolomics and exercise ▪ Hypertension ▪ Laboratory – exercise and blood pressure

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (40%) which includes: ▪ Multiple choice questions II. Weekly report (30%). III. Review Paper (30%).														

RECOMMENDED BIBLIOGRAPHY

▪ Devendra D, Liu E, Eisenbarth GS. Type 1 diabetes: recent developments. BMJ 328: 750-754, 2004. ▪ Alan R. Saltiel. New Perspectives into the Molecular Pathogenesis and ▪ Treatment of Type 2 Diabetes. Cell, 104: 517–529, 2001.

- Position Statement by the Canadian Diabetes Association: Guidelines for the Nutritional Management of Diabetes Mellitus in the New Millennium. Canadian Journal of Diabetes Care 23(3): 56-69.
- KL Johansen, PL Painter, GK. Sakkas, P Gordon, DW Doyle, T Shubert. Effects of Resistance Exercise Training and Nandrolone Decanoate on Body Composition and Muscle Function among Patients Receiving Hemodialysis: A Randomized, Controlled Trial. Journal of the American Society of Nephrology 2006
- Vgontzas AN, Bixler EO, Chrousos GP Sleep apnea is a manifestation of the metabolic syndrome. Sleep Med Rev. 2005 Jun;9(3):211-24. Review
- Drust B, Waterhouse J, Atkinson G, Edwards B, Reilly T Circadian rhythms in sports performance--an update. Chronobiol Int. 2005;22(1):21-44.
- Carroll S, Dudfield M. What is the relationship between exercise and metabolic abnormalities? A review of the metabolic syndrome. Sports Med. 2004;34(6):371-418.

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	516	SEMESTER OF STUDIES	B
COURSE TITLE	Muscle physiology – function and plasticity		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Christina Karatzaferi	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_125		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Knows the mechanism of function of skeletal muscles, the factors that contribute to the maintenance and proper functioning of the muscular system, and the long-term effects of exercise on the human muscular system. 2. Understands the causes and characteristics of dysfunctions of the muscular system and how appropriate muscular load can be used as a means of maintaining health and preventing diseases or as a means of recovering from them. 3. Connects the scientific knowledge acquired with practice (i.e. instructions for implementing exercise), within the context of the patient's therapeutic treatment and in collaboration with the treating physician.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Import ▪ Molecular-cellular diversity of muscle ▪ Coordination of contractility and energy expenditure – Elements of neuromuscular control ▪ Muscle fatigue – fatigue – Laboratory ▪ Use of phosphagens and carbohydrates ▪ Use of fats and proteins – Laboratory ▪ Muscle damage and recovery ▪ Muscle plasticity: atrophy, cachexia ▪ Ergogenic substances - Assignment of tasks ▪ Muscle plasticity: adaptations to exercise ▪ Muscle plasticity: muscle pathology ▪ Presentations of work - Recap

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
TEACHING ORGANIZATION	<table><tr><th>Activity</th><th>Semester workload (hours)</th></tr><tr><td>Lectures</td><td>36</td></tr><tr><td>Preparation for class and literature study-analysis</td><td>110.5</td></tr><tr><td>Studying for exams</td><td>39</td></tr><tr><td>Examination</td><td>2</td></tr><tr><td></td><td></td></tr><tr><td>Total course</td><td>187.5</td></tr></table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	110.5	Studying for exams	39	Examination	2			Total course	187.5
Activity	Semester workload (hours)														
Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (65%) which includes: ▪ Development Questions ▪ Problem Solving II. Assignment (25%) – assignment presentation (10%)														

RECOMMENDED BIBLIOGRAPHY

- McArdle W . D., et al. (2001). Adaptations induced by training. In: Exercise Physiology (translated-edited by V. Kleisouras), Paschalidis Medical Publications, Athens, 494-503.
- Staron, RS Human skeletal muscle fiber types: delineation, development, and distribution. Can J Appl Physiol 22(4):307-27, 1997
- Bottinelli, R. and C. Reggiani. Human skeletal muscle fibers: molecular and functional diversity. Progress in Biophysics and Molecular Biology. 73:195-262, 2000.
- Kushmerick , MJ Bioenergetics and muscle cell types. Adv. Exp. Med. Biol. 384:175-84, 1995.
- Fitts, RH and JJ W idrick . Muscle mechanics: adaptations with exercise-training. in Exerc . Sport Sci.
- Rev., J., O. Holloszy , Ed. Williams & Wilkins , Baltimore , 1996, Vol. 24, pgs. 427 –473.
- Karatzaferi , C., Franks-Skiba, K. and Cooke, R. The inhibition of shortening velocity in conditions that mimic fatigue. Am J Physiol Regulation Integral Comp Physiol . 294(3):R948-55, 2008.

Semester C courses

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	701	SEMESTER OF STUDIES	C
COURSE TITLE	Physical activity, motor function and quality of life in old age		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Vasiliki Zisis	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_124		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands basic concepts of the scientific field of gerontokinesiology , such as functional fitness , social and psychological functioning. 2. He knows the benefits of physical activity in all dimensions of functionality, as well as their relationship with quality of life. 3. It follows directions for further study in these areas, analyzing key methodological issues in designing and conducting research on older adults. 4. Knows the use of specific tools for assessing psychological functioning and functional fitness , as well as specialized principles for designing exercise programs for the elderly. 5. Prepares group presentations with fellow students on the latest developments in research on topics related to the course modules.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy

The course aims to develop the following **specific** skills:

- Competence regarding the content of knowledge
- Ability to apply scientific knowledge
- Ability to transfer knowledge

COURSE CONTENT

- The theory of aging, causes and consequences
- Physiological changes, performance and fitness during aging
- Methodological issues and individual differences in aging research
- Assessment of physical activity and motor performance in the elderly
- Health, fitness and wellness as you age
- Physical activity and quality of life in old age
- Exercise, health, cognition and learning in the elderly
- Exercise, health and emotional functioning in the elderly
- Interventions to increase physical activity in the elderly

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Activity	Semester workload (hours)														
Lectures	36														
Preparation for class and literature study-analysis	110.5														
Individual work	21														
Teamwork	20														
Total course	187.5														
STUDENT EVALUATION	I. Individual Work - literature review (30%) II. Group work - Presentation (30%) III. Written exam (40%) which includes: ▪ Multiple choice with one correct answer ▪ Multiple choice with more than one correct answer ▪ Matching														

	▪ True/False ▪ Text completion
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RECOMMENDED BIBLIOGRAPHY

▪ Rose (2020) Physical activity instruction of older adults (2nd ed). Champaign IL: Human Kinetics . For the Greek version: Designing exercise programs for older adults. Edited by V. Zisi & M. Michalopoulou. Athens: Konstantinidis. ▪ Birren , JE & Schaie , WK (2006). Handbook of the Psychology of Aging, 6th ed. Burlington , MA: Elsevier Academic Press . ▪ Spirduso, WW, Francis, KL, & MacRae, PG (2005). Physical Dimensions of Aging, 2nd ed. Champaign , IL: Human Kinetics .
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COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	702	SEMESTER OF STUDIES	C
COURSE TITLE	Applied psychology		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHING RESPONSIBLES	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Antonis Hadjigeorgiadis Evangelos Galanis	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_148		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands the basic theories of research and applications of psychology and social psychology in relation to participation in physical activity and human performance. 2. He knows the theoretical approaches related to exercise and the psychology of performance. 3. Possesses the knowledge that will allow him/her to develop an informed opinion and critical thinking on the issues of the psychology of physical activity and human performance. 4. Understands the application of psychological principles to exercise and performance. 5. Can design and implement psychological skills development programs.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ Introduction to sports psychology ▪ Urge ▪ Self -efficacy & Self-esteem ▪ Introduction to psychological skills ▪ Practicing mindfulness ▪ Goal Setting & Mental Imagery ▪ Self -talk ▪ Relaxation ▪ Performance routines ▪ Stress ▪ Group dynamics ▪ Leadership

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
TEACHING ORGANIZATION	<table><tr><th>Activity</th><th>Semester workload (hours)</th></tr><tr><td>Lectures</td><td>36</td></tr><tr><td>Preparation for class and literature study-analysis</td><td>66.5</td></tr><tr><td>Writing assignments</td><td>40</td></tr><tr><td>Application Calendar</td><td>45</td></tr><tr><td></td><td></td></tr><tr><td>Total course</td><td>187.5</td></tr></table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	66.5	Writing assignments	40	Application Calendar	45			Total course	187.5
Activity	Semester workload (hours)														
Lectures	36														
Preparation for class and literature study-analysis	66.5														
Writing assignments	40														
Application Calendar	45														
Total course	187.5														
STUDENT EVALUATION	I. Writing assignments (70%) II. Application Calendar (30%)														

RECOMMENDED BIBLIOGRAPHY

▪ Raab, M., Wylleman, P., Seiler, R., Elbe, A.-M. & Hatzigeorgiadis , A. (2016). Sport and Exercise Psychology Research: From Theory to Practice. Elsevier.

- Papaioannou, A. & Hackfort , D. (2014). Routledge Companion to Sport and Exercise Psychology: Global perspectives and fundamental concepts. Routledge : Taylor & Francis .
- Murphy, S. (2012.) The Oxford Handbook of Sport and Performance Psychology (pp. 191-212). Oxford University Press .
- Tenenbaum, G., Eklund, RC (Eds.) (2007). Handbook of Sport Psychology (3rd Edition). New York : Wiley .
- Carron, A., Hausenblas , HA, & Eys, MA (2005). Group Dynamics in Sport. Morganton , WV: Fitness Information Technology.
- Jowett, S. & Lavallee, D. (2007). Social Psychology in Sport. Champaign , Ill : Human Kinetics .

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	503	SEMESTER OF STUDIES	C
COURSE TITLE	New technologies in motion analysis		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Athanasios Tsiokanos	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_118		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands modern methods of analyzing human movement. 2. He is aware of the latest methodological developments in the field of automatic optoelectronic kinematic systems, wireless electromyography , dynamometry through dynamometers and pressure platforms , virtual reality and robotics. 3. He makes use of the above through practical training in the modern equipment of the Biomechanics Laboratory.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

▪ General about measurements. Transformation from time to frequencies

- Dynamometry . Dynamometers
- Dynamometry . Laboratory - measurements
- Dynamometry . Pressure systems
- Electrical activity of the muscle. Electromyography
- Electromyography in movement analysis. Fatigue and introduction to Biofeedback
- Two-dimensional (2-D) analysis
- Three-dimensional (3-D) analysis. Usefulness of optoelectronic systems
- 3-D analysis laboratory. Data collection
- 3-D analysis laboratory. Presentation of results
- Three-dimensional analysis IV - Laboratory - measurements and digital writing
- Virtual Reality Systems - Robotics and material review

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
TEACHING ORGANIZATION	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload (hours)</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>36</td></tr> <tr> <td>Preparation for class and literature study-analysis</td><td>110.5</td></tr> <tr> <td>Studying for exams</td><td>39</td></tr> <tr> <td>Examination</td><td>2</td></tr> <tr> <td></td><td></td></tr> <tr> <td>Total course</td><td>187.5</td></tr> </tbody> </table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	110.5	Studying for exams	39	Examination	2			Total course	187.5
Activity	Semester workload (hours)														
Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (70%) which includes: ▪ Multiple choice questions ▪ Role and stakeholder analysis in a short case study ▪ Comparative evaluation of theory elements II. Progress exam (30%)														

RECOMMENDED BIBLIOGRAPHY

Recommended Bibliography:

- Basic Biomechanics (Basic biomechanics 7th ed , by S Hall) Parisianou publications , 2018. ISBN : 9789605833879

- Biomechanics of Movement, The Science of Sports, Robotics, and Rehabilitation. Uchida TK and SL Delp, MIT Press, 2021. ISBN 9780262044202

Related scientifically magazines :

- Journal of Biomechanical
- Clinical Biomechanical
- Journal of applied Biomechanics
- Gait and Posture
- Sports biomechanics
- Journal of electromyography and Kinesiology

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	505	SEMESTER OF STUDIES	C
COURSE TITLE	Exercise and obesity		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Yannis Fatouros	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_107		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. He knows the etiology and prevalence of obesity as well as the factors that favor its development. 2. Understands obesity assessment procedures, having practiced them. 3. He knows the economic and clinical implications of the obesity problem. 4. Understands the long-term effects of exercise on metabolism, as well as the factors that promote a sedentary or active lifestyle. 5. Understands the goals and how to design an exercise and diet program for an obese person, as well as the interaction with exercise and other interventions. 6. He/She knows the public health policies that must be followed to address obesity.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

Theoretical part	
▪ Introduction to obesity – Epidemiology of obesity ▪ The pathophysiology of obesity ▪ The relationship between obesity, insulin resistance and inflammation. ▪ The clinical dimension of obesity: inflammation and diabetes ▪ The economic cost of obesity and a sedentary lifestyle ▪ Childhood obesity ▪ The assessment of physical activity and sedentary lifestyle ▪ The assessment of the physical and functional status of individuals with obesity. ▪ Prescribing exercise and physical activity in the treatment of obesity ▪ Other methods of treating obesity. ▪ The interaction of exercise with other methods of treating obesity ▪ Developing a comprehensive obesity treatment plan	
Laboratory-Experiential part	
▪ Methods for assessing obesity. ▪ Energy balance assessment ▪ Metabolic equations ▪ Resting metabolic rate measurement ▪ Energy expenditure measurement ▪ Measurement of energy expenditure during exercise or physical activity	

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning															
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.															
TEACHING ORGANIZATION	<table><tr><th>Activity</th><th>Semester workload (hours)</th></tr><tr><td>Lectures</td><td>36</td></tr><tr><td>Preparation for class and literature study-analysis</td><td>110.5</td></tr><tr><td>Studying for exams</td><td>39</td></tr><tr><td>Examination</td><td>2</td></tr><tr><td></td><td></td></tr><tr><td>Total course</td><td>187.5</td></tr></table>		Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	110.5	Studying for exams	39	Examination	2			Total course	187.5
Activity	Semester workload (hours)															
Lectures	36															
Preparation for class and literature study-analysis	110.5															
Studying for exams	39															
Examination	2															
Total course	187.5															
STUDENT EVALUATION	I. Written final exam (70%) which includes:															

	▪ Multiple choice questions ▪ Role and stakeholder analysis in a short case study ▪ Comparative evaluation of theory elements ▪ Case scenario analysis studies) II. Laboratory exercises (30%)
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RECOMMENDED BIBLIOGRAPHY

- American College of Sports Medicine (ACSM). Guidelines for Exercise Testing and Prescription, 9th ed., Wolters Kluwer, 2021.
- Bouchard C, Katzamarzyk PT. Physical Activity and Obesity, 2nd ed. Human Kinetics, Champaign, IL, USA, 2010.
- Rippe JM, Angelopoulos TJ. Obesity: Prevention and Treatment, CRC Press, Boca Raton, FL, USA, 2012.
- Andersen RE. Obesity Etiology, Assessment and Treatment. Human Kinetics, Champaign, IL, USA, 2003.
- Durstine JL, Moore G, Painter P, Roberts S. ACSM's Exercise Management for Persons with Chronic Diseases and Disabilities, 3rd ed., Human Kinetics, Champaign, IL, USA, 2016.
- American College of Sports Medicine (ACSM). Guidelines for Exercise Testing and Prescription, 9th ed., Wolters Kluwer, 2013.
- Sauberlich HE. Assessment of Nutritional Status, 2nd ed. CRC Press LLC, Boca Raton, FL, USA, 1999.

Related scientific journals:

- Medicine and Science in Sports and Exercise
- International Journal of Obesity
- Cell Metabolism
- Annual Review of Nutrition
- Advances in Nutrition
- International Journal of Behavioral Nutrition and Physical Activity
- American Journal of Clinical Nutrition
- International Journal of Sport Nutrition and Exercise Metabolism
- Obesity
- Clinical Nutrition
- Nutrition Research Reviews

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	506	SEMESTER OF STUDIES	C
COURSE TITLE	Biochemistry of exercise		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Athanasios Tziamourtas	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_110		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands the basic principles of endocrinology and biochemistry and how they relate to exercise. 2. Understands the connection between theoretical knowledge of endocrinology and biochemistry and practice. 3. Understand which factors are related to metabolism during exercise and are important for performance. 4. He knows the long-term effects of exercise on human metabolism.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge ▪ Ability to transfer knowledge

COURSE CONTENT

- Import
- The endocrine system and factors that affect hormone levels
- Exercise and lipid metabolism
- Exercise and carbohydrate metabolism
- Metabolic adaptations from endurance training
- Exercise and bone tissue
- Exercise and muscle damage
- Exercise and free radical production – Antioxidant system
- Exercise and G6PD enzyme deficiency
- Effect of acute and chronic exercise on the human hematological system – Immune system
- Ergogenic aids
- Exercise and Rheumatoid Arthritis

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
TEACHING ORGANIZATION	<table border="1"> <thead> <tr> <th>Activity</th><th>Semester workload (hours)</th></tr> </thead> <tbody> <tr> <td>Lectures</td><td>36</td></tr> <tr> <td>Preparation for class and literature study-analysis</td><td>110.5</td></tr> <tr> <td>Studying for exams</td><td>39</td></tr> <tr> <td>Examination</td><td>2</td></tr> <tr> <td></td><td></td></tr> <tr> <td>Total course</td><td>187.5</td></tr> </tbody> </table>	Activity	Semester workload (hours)	Lectures	36	Preparation for class and literature study-analysis	110.5	Studying for exams	39	Examination	2			Total course	187.5
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Lectures	36														
Preparation for class and literature study-analysis	110.5														
Studying for exams	39														
Examination	2														
Total course	187.5														
STUDENT EVALUATION	I. Written final exam (60%) which includes: ▪ Multiple choice questions ▪ Role and stakeholder analysis in a short case study ▪ Comparative evaluation of theory elements II. Review work (40%)														

RECOMMENDED BIBLIOGRAPHY

Recommended Bibliography: ▪ Exercise Biochemistry, Vassilis Mougios , Paschalidis Medical Publications, 2008

- Biochemical Monitoring of Sport Training, Akto Viru & Mehis Viru, Human Kinetics, 2001

Related scientifically magazines :

- British Journal of Sports Medicine
- Medicine & Science in Sports & Exercise
- International Journal of Exercise Science
- European Journal of Sports Science
- Annual Review of Nutrition
- Advances in Nutrition
- International Journal of Behavioral Nutrition and Physical Activity
- American Journal of Clinical Nutrition
- International Journal of Sport Nutrition and Exercise Metabolism
- Nutrition Research Reviews

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	507	SEMESTER OF STUDIES	C
COURSE TITLE	Musculoskeletal injuries and rehabilitation		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
Lectures	36	7.5	
COURSE TYPE	Background		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Panagiotis Tsaklis	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://eclass.uth.gr/courses/PE_P_113		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Understands the loads that the human body receives during the performance of sports activities and their contribution to the development and creation of an injury or pathology. 2. Knows the types, types and healing processes of sports injuries and recognizes the causative factors of sports injuries and the application of prevention techniques during activity. 3. Understand the general principles of applications of the science of Physiotherapy for all types of sports injuries (muscular, ligamentous, tendon , osteochondral , nervous , etc.), so that in collaboration with specialists (Physicians-Physical Therapists) he can organize the reintegration team into sports activity.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy The course aims to develop the following specific skills: ▪ Competence regarding the content of knowledge ▪ Ability to apply scientific knowledge

- Ability to transfer knowledge

COURSE CONTENT

- Types of injuries (acute injuries- overuse injuries ,) Sports Injury: Inflammation- Pathophysiology , healing
- Presentation of Physiotherapy tools I (physical tools and technologies)
- Presentation of Physiotherapy tools II (natural tools and therapeutic techniques)
- Trajectory width recovery techniques and strength-power recovery techniques
- Neuromuscular control rehabilitation techniques and plyometric exercise in sports
- General principles of muscle injury rehabilitation: a) Causes b) evaluation tests c) treatment d) return to training
- General principles of ligament injury rehabilitation: a) Causes b) evaluation tests c) treatment d) return to training
- General principles of tendon injury rehabilitation: a) Causes b) evaluation tests c) treatment d) return to training
- General principles of rehabilitation of bone and cartilage injuries: a) Causes b) Evaluation tests c) Treatment d) Return to training
- Head and nerve injuries in sports: a) Causes b) Evaluation tests c) Treatment d) Return to training
- Spinal Injuries: a) Back pain- sciatica b) Back pain, tests c) Treatment program d) Return to training
- Sports taping (protective-preventive): Techniques for taping joints of the lower and upper extremities with a non-adhesive bandage (cotton).

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Face-to-face as well as synchronous and asynchronous distance learning														
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Use of MS Teams , MS PowerPoint and videos in the context of lectures. The teaching material is posted in Word and PDF format on the course page in eClass . Communication with students and their information is done electronically through eClass or by email.														
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Lectures	36														
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Studying for exams	39														
Examination	2														
Total course	187.5														

STUDENT EVALUATION	I. Written final exam (60%) which includes: ▪ Multiple Choice Questions ▪ Development Questions II. Measurement work (40%).
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RECOMMENDED BIBLIOGRAPHY

▪ Fousekis K (2015). Applied Sports Physiotherapy, Medical Publications P. Ch. Paschalidis ▪ Tsaklis P (2019). Isokinetic dynamometer and exasperation , University Studio Press ▪ Ambatzidis C. (2003). Sports Injuries , University Studio Press. ▪ Prentice W.E. (2007). Sports Injury Rehabilitation Techniques, Parisianos Scientific Publications . ▪ Deligiannis A. (1997). Sports Medicine, University Studio Press . ▪ Baltopoulos P (2002). Sports Medicine I, II, Medical Publications P. Ch. Paschalidis

COURSE OUTLINE

GENERALLY

LEISURE	Physical Education, Sports and Dietetics Sciences		
PART	Physical Education and Sports		
LEVEL OF STUDIES	Postgraduate		
COURSE CODE	DE	SEMESTER OF STUDIES	C
COURSE TITLE	Diplomatic Work		
INDEPENDENT TEACHING ACTIVITIES	TOTAL TEACHING HOURS	CREDIT UNITS	
	---	30	
COURSE TYPE	Choice		
PREREQUISITE COURSES	No	TEACHER RESPONSIBLE	
LANGUAGE OF INSTRUCTION & EXAMS	Greek and English	Supervising Professor	
THE COURSE IS OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	---		

LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, the student will be able to: 1. Can delve into research in a specific thematic area using the knowledge acquired during his/her studies. 2. Integrates into research groups and adapts to the group's requirements. 3. Refer to international bibliography, organize his/her research, design experiments, adopt internationally accepted protocols and practices, write a scientific text with bibliographic references, avoiding plagiarism, and critically reflect the results of his/her research (underlining their contribution to scientific progress). 4. Organize and perform a presentation of scientific work before an audience during the presentation of the thesis and its examination by a Three-Member Examination Committee (including the Supervising Professor), answering questions concerning either the narrow subject of the thesis or the more general scientific field.
General skills
The course aims to develop the following general skills: ▪ Critical thinking and self-criticism skills ▪ Ability to generate new ideas (creativity) ▪ Problem-solving ability ▪ Ability to collaborate ▪ Interpersonal skills ▪ Leadership skills and autonomy ▪ Ability for free, creative and inductive thinking

The course aims to develop the following **specific** skills:

- Competence regarding the content of knowledge
- Ability to apply scientific knowledge
- Ability to transfer knowledge

COURSE CONTENT

The thesis is research-based and is assigned individually to a single student , on a topic decided in collaboration with the Supervising Professor. The thesis is prepared under the responsibility of the student , under the guidance of the Supervising Professor.

The text of the EO should include the following sections (in the order in which they are listed, as analyzed below):

Cover

- on thick paper
- includes the University of Thrace logo, the title of the School, the Department and the Postgraduate Program, the approved title of the PhD, the name of the student, the names of the Three-Member Committee and the Supervising Professor, the year of presentation and the city where the Department is located.

Cover

- DE title in Greek and English
- members of a Three-member Examination Committee (accompanied by the title and field of study of each member as well as the Institution to which they belong)

Dedication (optional)

- in the upper right position of the page, right aligned

Responsible Declaration

- The following text is signed by the student who prepared the thesis: "I certify that I am the author of this thesis, which was prepared in accordance with the Regulations for Preparing the Thesis of the AKYGAS Postgraduate Program"

Acknowledgements (optional)

Contents

Table List (optional)

List of Images/Photos (optional)

List of Abbreviations (optional)

Summary

- up to 250 words
- briefly describes the subject of the study (purpose, methodology, results, conclusions)
- keywords not included in the title (at the end of the Abstract)

Import

- It is recommended that the length of the introduction be 10-25% of the entire thesis.
- includes the literature review
- presents the main points of existing knowledge on the subject of DE, from reliable and authoritative published works
- The way in which in-text citations are made is described in Section III (Bibliographic References)

the last paragraph of the introduction includes the purpose of the DE
Materials and Methods - includes a detailed description of the experimental methods followed, without commenting on the results - there should be a correspondence between the methods described in the Results Chapter - When methods described in publications are followed, a reference should be made in the text (and the source should be included in the Bibliography). If modifications have been made to the method, these should be stated precisely.
Results - the products of the data analysis and the results (quantitative and/or qualitative) that arise from them are presented, without any particular comment or comparison with the results of other researchers - each image, diagram or table must be commented on and referred to in the text
Discussion The results of the DE are presented alongside the results of related published works, the results are linked for the purpose of explaining them, a comparison and contrast is made, highlighting the contribution of the DE to scientific research and listing areas for future research.
Conclusions the main results of the DE are presented in a summary (in list form)
Bibliography All references made within the text must also be cited in the bibliography.
Annexes (optional)

TEACHING AND LEARNING METHODS – EVALUATION

DELIVERY METHOD	Research																	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Guidance from the Supervising Professor using all appropriate methods and tools. Use of the Department's laboratory and other equipment for data analysis and processing, implementation of experiments, technical tests , etc.																	
TEACHING ORGANIZATION	<table><tr><th>Activity</th><th>Semester workload (hours)</th></tr><tr><td>Literature review</td><td>150</td></tr><tr><td>Development of methodological approach and applied methodology</td><td>100</td></tr><tr><td>Data collection and analysis</td><td>250</td></tr><tr><td>Presentation of results – discussion on the questions</td><td>100</td></tr><tr><td>Final writing of the thesis</td><td>150</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>		Activity	Semester workload (hours)	Literature review	150	Development of methodological approach and applied methodology	100	Data collection and analysis	250	Presentation of results – discussion on the questions	100	Final writing of the thesis	150				
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	Literature review	150																
	Development of methodological approach and applied methodology	100																
	Data collection and analysis	250																
	Presentation of results – discussion on the questions	100																
	Final writing of the thesis	150																

	Total course	750
STUDENT EVALUATION	Upon completion of the DE, it is presented (orally and publicly) at a relevant event organized after an announcement by the secretariat. The criteria taken into account for the evaluation of the thesis concern the students' progress during the preparation of the thesis, the written scientific text and the presentation and defense of the thesis, such as: 1. The student's competence and effectiveness during the research and learning process of preparing the dissertation. 2. Consistency with what was agreed upon with the Supervisor: bibliographic preparation, accuracy in performing experiments/studies, schedules and deliverables. 3. The volume of the project and the amount of work during the academic semesters leading up to the end of the PhD. 4. The quality of the written scientific discourse, the approach to investigating the topic and the use of relevant bibliography. The structure of the thesis and its written presentation, e.g. the coherence of the text, the correct use of terminology and language, the precise formulation of concepts, the scientifically correct documentation of the conclusions. 5. The correct use of written and oral scientific language during the presentation of the thesis. 6. The coherence of the presentation and the demonstration of sufficient knowledge of both the topic being addressed and the thematic unit to which the DE belongs (answers to the questions). Each member of the Three-Member Examination Committee grades on a scale from 0 to 10 (with an accuracy of one decimal place). The members of the examination committee grade the thesis by evaluating the written text (60%) and the student's performance during the presentation - defense of his thesis (40%). The final grade of the thesis is derived from the Average of the grades of the Three-Member Examination Committee (with an accuracy of one decimal place) with a minimum passing grade of 5.0 (five).	

RECOMMENDED BIBLIOGRAPHY

- American Psychological Association (1994). Publication manual of the American Psychological Association (5th ed.). Washington , DC: APA.
- Thomas JR, & Nelson JK (1996). Research methods in physical activity (3rd. ed., trans . Karteroliotis , K.). Athens: Paschalidis Medical Publications.