

Doc. 300.1.2

Date: 22/03/2021

Higher Education Institution's response

- Higher education institution: European University Cyprus
- Town: Nicosia
- Program of study (Name, ECTS, duration, cycle)

Name

In Greek: «Εφαρμοσμένη Αθλητική Επιστήμη (18 μήνες/90 ECTS, Μεταπτυχιακό)»

In English:

«Applied Sport Sciences (18 months/90 ECTS, Master of Science)»

- Language of instruction: Greek
- Program's status: Currently operating

KYΠPIAKH ΔHMOKPATIA REPUBLIC OF CYPRUS





The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the "Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 and 2016" [N. 136 (I)/2015 and N. 47(I)/2016].

A. Guidelines on content and structure of the report

- The Higher Education Institution based on the External Evaluation Committee's evaluation report (Doc.300.1.1) must justify whether actions have been taken in improving the quality of the program of study in each assessment area.
- In particular, under each assessment area, the HEI must respond on, <u>without changing</u> <u>the format of the report</u>:
 - the findings, strengths, areas of improvement and recommendations of the EEC
 - the deficiencies noted under the quality indicators (criteria)
 - the conclusions and final remarks noted by the EEC
- The HEI's response must follow below the EEC's comments, which must be copied from the external evaluation report (Doc. 300.1.1).
- In case of annexes, those should be attached and sent on a separate document.

The Applied Sport Sciences (M.Sc.) program of the European University Cyprus wish to express their sincere gratitude to the External Evaluation Committee (EEC) for its evaluation.

The collegial spirit created by the members of the EEC during the evaluation processes created an atmosphere of knowledge sharing and synergy which allowed the members of the Department and the two Programs to support them to the best of their abilities. It is thus, that the Department has noted the positive feedback of the EEC and we appreciate its insightful recommendations, which provided us the opportunity to further improve the quality and ensure the future implementation of the two programs.

In the following pages, we respond in detail to all recommendations for improvement suggested by the EEC and we provide all relevant information to explain the actions taken to ensure that the two programs are of high quality and considerable impact.





1. Study program and study program's design and development

The EEC has raised the following issues. The responses for the issues raised are indicated below after EEC Comments.

Comments by the EEC:

Areas of improvement and recommendations:

- 1. Consider an audit of career pathways to relate to area(s) of specialization within the degree programs.
- 2. If not already available, establish a database of alumni employment.

Response by EUC:

We thank the EEC for these important recommendations, which we have attempted to take into account effectively, as indicated below:

1. The European University Cyprus Career Center outsources an annual Employability Survey. The Career Center runs Employability surveys for the last 20 years. The data collection method is done by telephone interviews using a structure questionnaire comprised of 23 questions. The sample size is quite large given that the Career Center delivers to the research company the list of graduates for each academic year that consented upon graduation, to participate in surveys taking into account the GDPR regulations. Furthermore, the Research Firm (Symmetron Market Research) is instructed to contact graduates from all degrees and standings so as to ensure that there is sample representation of all degrees and academic levels. Indicatively, for 2018 Employability Survey, a total of 462 effective interviews were conducted amongst 615 EUC's alumni who have consented to participate in surveys. The response rate was 75%.

Once the results are compiled, the European University Cyprus Career Center disseminates the findings both to the different Schools and Departments, as well as to the administration departments for further review and deliberation and defining the Institutional policies related to program design and implementation.

Due to the limited responses by students of the Sport Science (M.Sc.) program, no available findings are currently available as to the program.

However, it is worth noting that valid results could not be extracted by a quantitative research approach due to low annual enrollment of students. The students' employment status is provided to the University through their registration procedure. The majority of our postgraduate students seem to be employed in the competitive sport as well as the health and wellness setting. This fact served as the background of the structure and design of the proposed postgraduate program.

The year 2019 was the first in which graduates of our undergraduate program enrolled in the postgraduate program, which led to increased student enrollment. This event is expected to lead to increased student participation in this research and the export of valid outcomes.

2. As stated above, alumni employment data collection is part of the abovementioned institutional career research. Due to limited participation, no data are currently available regarding the Sport Science alumni employment status as such. Efforts



will be made in collaboration with the EUC Career Center to expand the list of M.Sc. graduates participating in our alumni database.





2. Teaching, learning and student assessment (ESG 1.3)

The EEC has raised the following issues. The responses for the issues raised are indicated below after the Findings section.

Comments by the EEC:

Areas of improvement and recommendations

- Consider the inclusion of a further practical element in the list of modules. This would provide added value to the Master's level programe by embedding another dimension of experiential learning for students. It could also ignite an interest in PhD research and the pursuit of a research career amongst students, which they may not be exposed to from a predominantly lecture-based programme.
- 2. Assessment, where possible, undertaken by more than one examiner. 2nd marker on proportion of the assessed work is best practice

Response by EUC:

Some very valuable suggestions have been provided in this section as well which we have attempted to take into account effectively, as indicated below:

1. We agree with the EEC comment on the inclusion of a further practical element in the program's course list. We strongly believe –as does the EEC- that incorporating laboratory/practical application in all the courses would enhance students' learning experience through skill acquirement, and as noted, it could further ignite their interest in Ph.D. research and increase the number of students who will pursuit a research career. Therefore, we have reviewed all the course modules where the theoretical/laboratory time ratio is now allocated as follows (Table 1 below and APPENDIX I):

	Module	Time Allocation			
#	Code - Name	Theory (hours/%)		Lab Pi (he	ooratory/ ractice ours/%)
1.	SPS600 - Research Methods and Biostatistics	21	50%	21	50%
2.	SPS605 - Applied Exercise Physiology	21	50%	21	50%
3.	SPS610 - Applied Exercise Psychology	21	50%	21	50%
4.	SPS615 - Applied Biochemistry of Exercise	21	50%	21	50%
5.	SPS620 - Physical Training Planning and Guidance	21	50%	21	50%
6.	SPS625 - Physical Capacity Evaluation and Exercise Prescription	15	35.7%	27	64.3%

Table 1. Theory/ Laboratory and/ or practical learning activities time allocation withinProgram Modules





7.	SPS640 - Applied Biomechanics	15	35.7%	27	64.3%
8.	SPS645 - Sport Nutrition	21	50%	21	50%
9.	MSS650 - Prevention and Rehabilitation of Athletic Injuries	21	50%	21	50%
10.	SPS655 - Applied Clinical Exercise Physiology	21	50%	21	50%
11.	SPS690 - Master Thesis	12	28.6%	30	71.4%
12.	SPS630 - Quantitative Approaches in Health Science Research	12	28.6%	30	71.4%
13.	SPS635 - Qualitative Approaches in Health Science Research	12	28.6%	30	71.4%

- 2. We endorse the suggestion of the EEC for a percentage of the markings to be double marked. More specifically, starting from the current Spring Semester 2021, 20% of all final exams will be doubled marked for all the courses which we currently have more than one academic staff with a profile that potentially enables him/her to teach the course. Such courses are:
 - SPS600 Research Methods and Biostatistics
 - SPS605 Applied Exercise Physiology
 - SPS615 Applied Biochemistry of Exercise
 - SPS620 Physical Training Planning and Guidance
 - SPS625 Physical Capacity Evaluation and Exercise Prescription
 - SPS640 Applied Biomechanics; SPS645 Sport Nutrition
 - MSS650 Prevention and Rehabilitation of Athletic Injuries
 - SPS655 Applied Clinical Exercise Physiology.

As far as the Marking and Assessment Criteria recommendation, as a University wide policy, all students from the onset of their studies are made aware of what is expected from them in each program of study and more specifically in each course. This information is presented on the Course Outline of each module (please see APPENDIX II; Sample of a Course Outline).

The course outlines contain information on:

• The Learning Outcomes of the course, as well as guidelines for the knowledge, understanding and skills students are expected to develop by the end of the course;

• The University's Internal Regulations on Academic Ethics and Students' Discipline;

- The Appeal Procedure;
- The Department's Absences Policy, including which is the maximum number of absences allowed for theoretical and laboratory classes;

• The course's Marking/Assessment Criteria, so that students are clearly informed what their instructor will be assessing them on during each part/component of their assessment, as well as the balance between exams, practical skills and assignments;



• The Grading System of the EUC.

Moreover, the Department has a 'Monitoring of Grades' mechanism. Each semester, prior to the approval of grades, the Department Chairperson monitors statistics on grades/marks for all courses of the Department via the Grade Submission form which executes statistical analysis of the grades on each course. This is a mechanism that the Department plans to continue to implement given its monitoring management advantages.





3. Teaching Staff (ESG 1.5)

The EEC has raised the following issues. The response for issue is shown below each point that is raised.

Comments by the EEC:

Areas of improvement and recommendations for Master of Science

- 1. Consider strategies that promote a greater degree of research-led, rather than didactic, teaching into the programme.
- 2. Recommend formalizing students' engagement in ongoing research projects through placement, internship or similar.

Response by EUC:

Some very valuable suggestions have been provided in this section also which we have attempted to take into account effectively, as indicated below:

1. We entirely align with the EEA comment on promoting a greater degree of research-led, rather than didactic, teaching into the program as we believe this contributes to the quality upgrade of the learning process. Through specific changes that have already been made and analyzed in point 2 above (Teaching, learning, and student assessment; p. 4), laboratory/practical applications are integrated within each course at a range between 50%-64.3% of the total teaching load for core modules and 100% for the Master Thesis. Moreover, laboratory/practical applications volume through assignments and practical assessment has significantly increased, which now amounts to 70% (Portfolio: 30%; Assignment: 20%) of the student's final mark instead of 30%, which was the case before. Respectively, the exams' weight is now set at 40% instead of 70% as previously was.

Portfolios will include a maximum of three (3) tasks of varied assessment type that, when added together, adhere to the assessment tariff of 30%. Tasks will include (not exhaustive): research/practical based case studies, multiple choice quizzes, reflective writing, presentations, reports, photo or video essays, interactive exercises/activities, etc. Portfolio activities have much higher complexity (including technical, practical and cognitive challenges) and require much more effort and time from students to be completed.

2. During the 3rd (final) study semester, students have to choose between the implementation of a Master Thesis or three elective courses. Students who enroll in the postgraduate program with the sole purpose of expanding their knowledge for professional development tend to avoid the Master Thesis option. Students who aim to pursue doctoral studies and others who show increased research interest choose to engage in autonomous research activities or engage in research programs implemented by the program's academic staff.

One of the academic staff's primary goals is to identify students with increased interest in participating in research activities. These activities are carried out either in the laboratory setting or through placements in other collaborating laboratories in Cyprus or abroad, or in the sports industry.

To enable all students to be involved in the research process, it will be mandatory for them to participate in ongoing research projects and other sports-related





scientific services (e.g., Laboratory or field-based physical performance evaluations) for data collection and analysis.

Students' research engagement is formalized in the core laboratory-based Module SPS625 - Physical Capacity Evaluation and Exercise Prescription through the allocation of 2 ECTS (60 hours). Students finally have an obligation to present the results derived from the collected data through a poster or oral presentation in the context of a specific student symposium for Sport Science Students.





4. Student admission, progression, recognition and certification (ESG 1.4)
<u>Areas of improvement and recommendations</u>
No comments were indicated by the EEC





5. Learning resources and student support (ESG 1.6)

Areas of improvement and recommendations

- 1. Faculty/Programme feedback to students' evaluation of the programme should be provided to ensure students feel that their evaluation is well received and that they contribute to program's improvement.
- 2. At present, the low student number would indicate adequate capacity to accommodate all MSc-related programme activities. However this may not be the case should the student numbers increase to the projected target numbers of the degree.
- **3.** Similar to the BSc, increase student engagement in research and broaden the options for independent project work.

Response by EUC:

- 1. Following the EEC's recommendation to encourage the active participation of the students in the development of the courses and their implementation, as mentioned above, mid-semester meetings with Year Representative(s) will be held. Furthermore, students are represented at all levels, including program advisory boards, Departmental Councils, School Councils, the Senate, etc. According to the Program Evaluation Review (PER) procedure, any stakeholder (including students) may initiate the revision of any program at any given time. In addition, students provide constructive feedback on their learning and teaching experience by participating in the Student Feedback on their Learning Experience (SFLE) process. European University Cyprus uses this feedback to improve student learning outcomes and learning experience continuously. The SFLE provides valid, reliable information/data on the impact and resource effectiveness of learning and teaching and instructor-related issues, thus contributing to the continuous improvement of academic programs. Additionally, it's worth mentioning that the contract renewal of part-time faculty each semester takes into serious consideration their SFLE outcomes. In this way, there is a continuous improvement of teaching guality in the Department and the student body is indeed contributing to the Program's improvement.
- 2. Indeed, the M.Sc. program in "Applied Sports Science" has a lower number of enrolled students than expected and compared to the rest of the Department's M.Sc. programs of study.

As the Committee noted, the Faculty teaching in the program has gained recognized international experience and qualification. All of them have a reputable track of peer-review publications and are actively engaged in research activities. It is clear that the academic staff in the program is highly qualified and a vital asset for the Department. Also, the infrastructures, the equipment, and the laboratories fully meet the needs of the program.

Therefore, to address the issue of low enrolment, we should search for alternative etiologies. The M.Sc. program in Applied Sports Science is currently offered in the Greek language; thus, there is a limitation in recruiting only Greek-speaking students (from Cyprus and Greece). Moreover, it is evident that the Master students' pool in Sports Science in Cyprus is limited. Therefore, attracting students from Greece can be an excellent solution to strengthen enrollment in the





program. However, most of the Master students are currently employed professionals, making it challenging to pursue a conventional master's degree program. Provided that the CY.Q.Q.A. will allow this, the development of online and blended teaching methodologies and the offering of specific sessions online even after the pandemic, could enhance the flexibility of students from abroad to be interested in submitting an application to enroll in the program and could eliminate any geographical restrictions by visiting a physical class every week.

Before the Covid-19 emergency measures applied in March 2020, the European University Cyprus had a formulated policy in place to gradually include the majority (80%) of its conventional (face-to-face) courses in its Digital Enhanced Learning (D.e.L.) project by 2022. This project aims at incorporating digital material and resources and digital pedagogical activities using the LMS platform Blackboard Learn. Thus, EUC was well prepared when the COVID-9 pandemic forced all our conventional programs to be offered online in terms of available infrastructure and Faculty expertise and materialized this transformation in less than a week. The University's D.e.L. policy is currently being re-designed given the legacy that the pandemic period will leave us with, namely to keep supporting with digital teaching formats all our conventional courses after the pandemic has ended.

3. Student engagement in research and independent project work is expected to be increased as per plan detailed in section 3 [Teaching Staff, Comments by the EEC for Applied Sport Sciences (M.Sc.), comment 2] (see page 5).





6. Additional for distance learning programs (ALL ESG)

Areas of improvement and recommendations

N/A

7. Additional for doctoral programs (ALL ESG)

N/A

8. Additional for joint programs (ALL ESG)

N/A





B. Conclusions and final remarks

The EEC has raised the following issues. The response for issue is shown below each point that is raised.

Comments by the EEC:

The EEC were very impressed by the commitment and engagement of all members of the Department who represented their component area(s) under evaluation. The ECC wish to thank and praise all for their cooperation, patience, honesty, and integrity in the conduct of what was a difficult and somewhat extraordinary (virtual) 'on-site', evaluation. That we achieved so much over the course of the day is a credit to all and bodes well for the future of the Department. Worthy of special mention are the student representatives who were exemplary and are outstanding ambassadors for the Department and University. It is clear that the students are well supported academically and pastorally throughout their studies by departmental staff and student support services. Overall, the ECC were favourable impressed by the high standards of tuition, academic quality of the staff and general teaching and support facilities offered by the EUC. The ECC would request the Programs consider the following recommendations, in the hope that consideration of the points below may assist to improve the quality of the programs and add value to the student learning experience.

1. The practical element of core sport science discipline areas (i.e. physiology, biomechanics) and sports nutrition seems lower than would be expected. Although a low number of specific modules in years 3 and 4 of the degree program contain significant laboratory content, these are weighted towards physiological and functional assessment only. It seems that both the undergraduate and postgraduate programs could benefit from a greater emphasis on the development of practical skills and opportunities for empirical learning, particularly in biomechanics and sports nutrition. Equally, Physical Education components of the BSc degree (with legal Cyprus requirements) places a large emphasis on pedagogical skills. Greater time should be provided to students to be mentored in, and practice, these skills.

2. The observation that very few students at undergraduate and postgraduate levels opt to undertake a self-direct research project (dissertation) is a potential concern. It is unclear whether this is due to a lack of physical resource (research laboratory access for students) or other support (s) required to engage in research. The EEC feel that building a stronger foundation for empirical learning (practical skills development and support for self-directed research projects) would ensure that the undergraduate and postgraduate curricula are truly "research-informed", thereby contributing added value to the student learning experience.

3. Extensive and constructive discussions with the teaching Faculty and students related to the 70% weighting attributed to the final exam. Faculty staff provided reassurance that the final exam often included a practical component, while students emphasised the need for the weighting within the 'exam' to better assess the practical competencies they will need for their future careers.

4. The ECC would like to emphasise its support for publishing the assessment criteria/methods for all modules in advance, to ensure that students fully understand how they will be assessed. Complimentary to this is the provision of timely and effective feedback to facilitate learning.

Response by EUC:

We would like to thank the EEC for the positive feedback and its constructive recommendations. As described in the previous sections of the report, the Sport





Science and Physical Education Program has made a focused effort to address each one of the EEC's recommendations.

- 1. To satisfy this recommendation a Mentor/Laboratory Assistant will be hired to further guide postgraduate students through the practical application of knowledge gained in the core sport science disciplines as following:
 - SPS605 Applied Exercise Physiology
 - SPS610 Applied Exercise Psychology
 - SPS615 Applied Biochemistry of Exercise
 - SPS620 Physical Training Planning and Guidance
 - SPS625 Physical Capacity Evaluation and Exercise Prescription
 - SPS640 Applied Biomechanics
 - SPS645 Sport Nutrition
 - MSS650 Prevention and Rehabilitation of Athletic Injuries
 - SPS655 Applied Clinical Exercise Physiology

The process will be monitored and recorded with a Laboratory Calendar/Log for students.

2. During the Final Semester students are taking up a Master Thesis or 3 elective courses as partial requirement for their graduation. Further efforts will be made to increase the percentage of students that select a research-based Master Thesis, as opposed to Projects based on systematic literature reviews or alternatively enrolment to (three) elective courses. Moreover, all postgraduate students will be involved in the research processes, through participation in ongoing research projects and other sports-related scientific services (e.g., Laboratory or field-based physical performance evaluations) for data collection and analysis. Students' research engagement will be formalized in the core laboratory-based Module SPS625 - Physical Capacity Evaluation and Exercise Prescription through the allocation of 2 ECTS (60 hours). Students will finally have an obligation to present the results derived from the collected data through a poster or oral presentation in the context of a specific student symposium for Sport Science Students.

3. Written exams, namely a midterm and a final exam, amounted to the 70% of the total grade for each course. Taking the EEC's recommendation into account the exams' weight is reduced to 40%%, and portfolio and the assignment weight are respectively adjusted to 30% and 20%.

4. Regarding the timely, clear, and transparent assessment and its criteria, and in addition to the thorough explanation of the Course Outlines and the assessment methods, all courses' instructors have introduced Rubrics, which will provide information on the expected Learning Outcomes and how those assessed. Continuous assessment is facilitated with a variety of activities/assessments provided weekly, which help students prepare adequately for their final examination at the end of each semester. In addition, students receive continuous and steady feedback they can rely on, made possible by the Department's feedback policy, which goes together with the continuous assessment.



C. Higher Education Institution academic representatives

Name	Position	Signature
Dr. Panos Papageorgis	Dean, School of Sciences	
Dr.Anastasios Theodoroou	Chairperson, Department of Life Sciences	
Dr. George Panayiotou	Program Coordinator, B.Sc.	

Date: 22/03/2021





APPENDIX I – COURSE DESCRIPTION

N	Courses	Page
1.	SPS600 - Research Methods and Biostatistics	2
2.	SPS605 - Applied Exercise Physiology	5
3.	SPS610 - Applied Exercise Psychology	8
4.	SPS615 - Applied Biochemistry of Exercise	11
5.	SPS620 - Physical Training Planning and Guidance	14
6.	SPS625 - Physical Capacity Evaluation and Exercise Prescription	17
7.	SPS640 - Applied Biomechanics	20
8.	SPS645 - Sport Nutrition	22
9.	MSS650 - Prevention and Rehabilitation of Athletic Injuries	25
10.	SPS655 - Applied Clinical Exercise Physiology	28
11.	SPS690 - Master Thesis	32
12.	SPS630 - Quantitative Approaches in Health Science Research	36
13.	SPS635 - Qualitative Approaches in Health Science Research	39





Course title	Research Methods and Biostatistics					
Course code	SPS600					
Course type	Compulsory					
Level	Master (2 nd C	Cycle)				
Year / Semester	1 st year / 1 st s	emester				
Teacher's name	Dr. Klea Pan	ayidou				
ECTS	10	Leactures / Weeks	3 hrs / 7 Weeks	Lab / Week	3 hrs / 7 Weeks	
Course purpose and objectives	This course a principles of to formulate databases, research an purpose of th and biostatis disease incid accidental ar Upon succes • Reca • Use t • Reco condu • Desig bodie • Seleco samp	aims at introducin the research met a research ques to critically read d to present the recourse is to un- tics. The course lence as well as not systematic error sful completion of sful completion of the methodology in gnize the ethica ucting an investig on the protocol of s, et the appropriate le size	ig and familiarizing hodology. It aim stion, to search depublished research derstand the base will introduce be the importance ors during an epu- of the course, struct required by the al issues that pation and appro- a research prop- sampling methor	ing the student with s at making the s for relevant bibli search articles, if e scientific comm sic concepts of ep asic descriptive s of correct sampli bidemiological stu- udents will be able cess, research question arise when desi opriately addressin bosal and submit i	th the basic tudent able ography in to conduct nunity. The idemiology tatistics on ng to avoid dy. e to: n, igning and ng them, t to funding he required	
	 Develops research tools for data collection, Analyze the data and interpret the results of the survey, Critically read published articles, know the way in which scientific journals operate with reviewers and submit work to them, Submit summaries of papers at local and international conferences (oral and poster presentations), Conduct qualitative and systematic reviews of the literature using international databases. 					
Prerequisites	None	Re	equired	None		
Course content	 Introc (quality) 	luction to researc tative, quantitativ	ch and description des	on of the types of observational stu	research idies)	







	 Bioethics issues: respect the rights of individuals involved in the survey, protect their personal data 					
	Research protocol, sample	 Research protocol, sampling methods and sample size 				
	 Data collection tools (questionnaires, interviews, measuring instruments): tool development, reliability and validity of measurements 					
	 Data analysis (quantitati interpretation of findings 	ve and qualitative	research) and			
	Introduction to Epidemio	logy and basic ep	idemiological con	cepts,		
	Simple descriptive statis	tics,				
	The concept of random a	and systematic er	ror,			
	Frequency outcome mea	asures, relationshi	p measures,			
	The concepts of the dete modifier	erminant, cofound	er, intermediate a	nd		
	Stratification and statistic	cal adaptation,				
	 Internal and external val 	idity,				
	 Types of research: Sync Cohort studies, Clinical t 	 Types of research: Synchronous studies, "Index-control" studies, Cohort studies, Clinical trials 				
	Face to Face					
	FCTS Load Distribution					
		FCTS	Hours			
Teaching	Instruction / Facilitation	2	60			
memodology	Exams Preparation	3	90			
	Learning /Portfolio Activities	3	90			
	Independent Study	2	60 300			
Bibliography	 Webb, P., Bain, C. & Page, A. Essential Epidemiology: An Introduction for Students and Health Professionals, 4th Edition. Cambridge University Press, Cambridge, UK, (2020) ISBN: 978-1- 1087-6680-7. 					
	2. Norusis, M. J. IBM SPSS Statistics 19 Guide to Data Analysis. Addison Wesley, Boston, USA (2019). ISBN: 978-0-321-74841-6.					
	 Armstrong, L.E. & Kraemer, W.J. ACSM's Research Methods. Wolters Kluwer, Philadelphia, USA, (2016). ISBN: 978-1-4511-9174- 5. 					
	4. Thomas, J.R., Nelson, J.k Physical Activity, 7 th Editi USA. (2015). ISBN: 978-1	X. & Silverman, S. on, Human Kinet -4504-7044-5.	J. Research Meth ics, Champaign,	nods in Illinois,		







	 Galanis, P. A. Health Science Data Analysis Methodology. IBM SPSS Statistics Applications. P. Ch. Paschalides Medical Publications, Athens, Greece (2015). ISBN: 978-9-9632-5805-5 				
	 Bowers, D., Fundamental Concepts in Biostatistics. Introduction for Health Professionals. Greek Editing – Nicos Midletton. P. Ch. Paschalides Medical Publications, Athens, Greece, (2011). ISBN: 978-9-6048-9033-0 				
	 Diomides, M. Basic Epidemiology. P. Ch. Paschalides Medical Publications, Athens, Greece, (2011). ISBN: 978-9-6039-9813-6 				
	 Galanis, P. & Sparos, L. Epidemiology Handbook, Beta Medical Publications, Athens, Greece, (2010). ISBN: 978-9-6045-2090-9 				
Assessment	Mid-term exam Final exam	25% 25%			
	Assignments40%Participation10%100%				
Language	Greek				





Course title	Applied Exercise Physiology					
Course Code	SPS605					
Course Type	Compulsory					
Level	Master (2 nd o	cycle)				
Year /Semester	1 st Year / 1 st	Semester				
Teacher's name	Dr. Gregoris I	Bogdanis				
ECTS	10Leactures / Week3 hrs / 7 WeeksLab / Week3 hrs / Weeks					
Course purpose and objectives	This course aims into providing in depth knowledge of body systems synergy and function (neural, muscular, cardiovascular, respiratory, glandular, immune system), during exercise and both short and long-term adaptations as a result of exercise. Every chapter covers the relevant subject with special reference to gender, age, and training, energy requirements of sport or physical activity.					
Learning outcomes	 Upon successful completion of the course, students will be able to: Record and explain in detail the acute and chronic adaptations to exercise and training, Describe in detail the physiological body functions that take place during work production, Describe in detail the physiological responses during exercise in different environmental conditions, Present and interpret results that derive from exercise testing, Describe the impact that exercise has on different populations, Design, structure and construct in detail, the components of exercise training programs on different populations, Accurately evaluate the contribution of training in optimizing 					
Prerequisites	None	Re	equired	None		
Course Content	 Energy sources – exercise metabolism I Exercise metabolism II Neuromuscular synapse – muscle contraction and adaptations during exercise Neuromuscular adaptations to power training Fatigue mechanisms during exercise Basic nutritional elements of exercise I 					





	Basic nutritional elements of exercise II				
	Obesity and adaptations during exercise				
	Cardiovascular function and adaptations to evercise				
	Cardiovascular function and adaptations to exercise				
	Respiratory function and a	adaptations to exe	ercise		
	 Aerobic capacity assessm 	nent			
	VO _{2max} testing				
	Face to Face				
	ECTS Load Distribution				
Teaching		ECTS	Hours		
methodology	Instruction / Facilitation	2	60		
mounouology	Exams Preparation	3	90		
	Learning /Portfolio Activities	3	90		
	Independent Study	2	60		
	Total	10	300		
Bibliography	 Kenney, W.L., Wilmore, J. Exercise, (7th Ed.). Huma USA, (2019). ISBN: 978-1- Plowman, S.A. & Smith, D and Performance, (5th Ed.) ISBN: 978-1-4963-2318-7 Raven P.B., Wasserman I Physiology: A holistic Appr Athens (2016). ISBN: 978-5 Kraemer, W.J., Fleck, S.J Integrating Theory and Philadelphia, USA, (2016). McArdle, W.D., Katch, F.I. Energy, and Human Perf Wilkins, Baltimore, USA, (2 Kleisouras V. Exercise Publications, Athens, Gree ACSM. Advanced Exercise Wilkins, Baltimore, USA, (2 Corbin, C. Exercise, Healt Publications, Athens, Gree 	A. & Costill, D.L an Kinetics Publis 4925-7229-9 .L. Exercise Phys). Wolters Kluwer, D.H., Squires W.C roach. Lagos Den 9-6078-7590-7 I, & Deschenes, Application (2nd ISBN: 978-1-451 & Katch, V.L Exe formance, (8th E 2015). ISBN: 978-1 Physiology. P. ce, (2011). ISBN: 9781 Physiology. P. ce, (2011). ISBN: ance in Adverse ce, (2011). ISBN: Physiology, (2 nd 2011). ISBN: 978-0 th & Wellness. P ce, (2001). ISBN:	Physiology of 3 shers, Champaigi iology: For Health Philadelphia, US, G. & T.D. Murray. hetrios Medical Pu M.R. Exercise Pl d Ed.). Wolters 1-9319-0 ercise Physiology: id.). Lippincott W 451191554 Ch. Paschalides 960-4-892-266. e Environment. 960-8410-93-2 Ed.). Lippincott V 0-7817-9780-1 . Ch. Paschalides 978-960-812-275	 A, Illinois, A, Fitness, A, (2017). Exercise ublictions, hysiology: Kluwer, Nutrition, /illiams & Medical Telethrion Villiams & s Medical -8 	





Assessment		
	Mid-term exam	20%
	Final exam	20%
	Portfolio	30%
	Assignments	20%
	Participation	10%
		100%
Language	Greek	





Course Title	Applied Sports Psychology				
Course code	SPS610				
Course type	Compulsory				
Level	Master (2 nd c	cycle)			
Year / Semester	1 st year/ 1 st se	emester			
Teacher's name	Dr. Despoina	Kouali			
ECTS	10	Lectures / week	3 hrs / 7 Weeks	Lab / Week	3 hrs / 7 Weeks
Course purpose and objectives	The aim of this course is to provide students with the fundamental knowledge of basic theories, research and application about sports and social psychology in physical activity and sports performance. In addition, it aims to apply psychological learning skills and performance in order to develop psychological skills by athletes.				
Learning outcomes	 Upon successful completion of the course, students will be able to: Define perspectives regarding exercise and sports, Apply literature review in the field of sports psychology, Recognise how psychology principles are applied in sports and exercise, Record behaviours of people in sport facilities, Apply principles against violence and aggression in sport facilities through the science of psychology, Analyse the skills necessary to develop learning and performance, Evaluate people behaviour in sport facilities before and after a psychological intervention program, Organise, apply, supervise and evaluate programs of psychological 				
Prerequisites	None	(Co-required	None	
Course content	 Introduction in sports psychology and psychological counselling and support of athletes Motivation and facilitation in sports and physical activity Goal setting in sports Self-efficacy in sports and physical activity Violence and aggression in sports (theory, environmental factors that promote violence, violence restriction between athletes) Development of ethics in sports 				





	Psychological perspectives in children sports						
	Psychological learning techniques						
	Positive attitude development for sports and physical activity						
	Relaxation techniques						
	Mental practice						
	Self talk in elite and mass n	articipation					
	• Self-taik in ente and mass p		_				
	Self-confidence in elite and	mass participatio	'n				
	Stress management before	and during the ev	vent				
	Selective attention and cond	centration in elite	sports				
	Stress management technic	ques against stre	ssors in sports.				
	Face to Face ECTS Load Distribution						
Tasahina		ECTS	Hours				
reaching	Instruction / Facilitation	2	60				
methodology	Exams Preparation	3	90				
	Learning /Portfolio Activities	3	90				
	Independent Study	2	60				
		10	300				
Bibliography	 Weinberg, S. & Gould, D. Fo. (7th Edition). Human Kiner (2018). ISBN: 978-1-4925-7 Taylor, J. Assessment in A Publishers, Champaign, Illin 6. Lane, A. Sport and Exercise 2nd Edition). Routledge, Abin 8487-2223-1 Razon, S. & Sachs, M.L. Ap Journey from Motivation Abingdon-on-Thames, UK, Cotterill, S., Weston, N. & Practitioner Case Studies Blackwell Hoboken, New Je 6Buckworth, J., Dishman, Exercise Psychology (2ⁿ Champaign, Illinois, USA, (2 Greece (2015). ISBN: 978-9 Buckworth, J., Dishman, F Exercise Psychology (2ⁿ Champaign, Illinois, USA, (2 	Independent Study 2 60 Total 10 300 1. Weinberg, S. & Gould, D. Foundations of Sport and Exercise Psychology (7th Edition). Human Kinetics Publishers, Champaign, Illinois, USA, (2018). ISBN: 978-1-4925-7059-2. 2. Taylor, J. Assessment in Applied Sport Psychology. Human Kinetics Publishers, Champaign, Illinois, USA, (2017). ISBN: 978-1-4925-2634-6. 3. Lane, A. Sport and Exercise Psychology (Topics in Applied Psychology, 2nd Edition). Routledge, Abingdon-on-Thames, UK, (2017). ISBN: 978-1-8487-2223-1 4. Razon, S. & Sachs, M.L. Applied Exercise Psychology. The Challenging Journey from Motivation to Adherence, (1st Edition). Routledge, Abingdon-on-Thames, UK, (2017). ISBN: 978-0-4157-0273-7 5. Cotterill, S., Weston, N. & Breslin, B. Sport and Exercise Psychology). Wiley-Blackwell Hoboken, New Jersey, USA (2016). ISBN: 978-1-1186-8654-6Buckworth, J., Dishman, R.K., O'Connor, P.J. & Tomporowski, P.D. Exercise Psychology (2nd Edition). Human Kinetics Publishers, Champaign, Illinois, USA, (2013). ISBN: 978-1-4504-0709-0 6. Goudas, M., Theodorakis, G. & Papaioannou, A. Psychological Excellence in Sport. Kyriakides Bros Publishers U.C., Thessaloniki, Greece (2015). ISBN: 978-9-6060-2128-2.					





	 Jowett, S. & Lavallee, D. Social Psychology in Sport. Human Kinetics Publishers, Champaign, Illinois, USA, (2011). ISBN: 978-0-7360-5780-6 Smith, D., Bar-Eli, M. Essential Readings in Sport and Exercise Psychology. Human Kinetics Publishers, Champaign, Illinois, USA, (2007). ISBN: 978-0-7360-5767-7. 			
Assessment	Mid-term exam Final exam Portfolio Assignments Participation	20% 20% 30% 20% 10% 100%		
Language	Greek			





Course title	Applied Biochemistry of Exercise					
Course code	SPS615					
Course type	Compulsory					
Level	Master (2nd c	cycle)				
Year / Semester	1 st year / 2 nd s	emester				
Teacher's name	Dr. Anastasio	s Theodorou				
ECTS	10 Lectures / week 3 hrs / 7 Weeks Lab / Week 3 hrs / 7 Weeks					
Course aim and objectives	The aim of th biochemical a addition, part based on spe	is course is to adaptations tha icular emphasis cific biochemica	provi at occ s is g al ma	de students cur to the b jiven into pla rkers and me	with the knowledg ody because of e nning and evaluat easures.	e regarding exercise. In ting training
Learning outcomes	 Upon successful completion of the course, students will be able to: Describe the basic biochemical changes and adaptations that occur on metabolism as a result of exercise, Define the principles that govern human metabolism during rest and exercise, Explain the basic biochemical measures procedure that regarding exercise and modify training program based on results, Explain the structure and biological role of basic biomolecules of the body and analyse biochemical changes during muscle contraction, Identify biochemical procedures of muscle recovery following exercise 					
Prerequisists	None	С	Co-re	quired	None	
Course content	 Introduction in biochemistry. Fundamental knowledge and concepts of biochemistry. Metabolism. Biomolecules: Carbohydrates / Lipids / Proteins. Nucleic acids/Gene expression. Principles of metabolism during exercise. High phosphate compounds. Carbohydrate metabolism during exercise. Lipid metabolism during exercise. Mid-term exam Protein metabolism during exercise. 					





	 Summary and finalisation of metabolism during exercise. 			
	 Convection of exercise induced signals and molecular adaptations during training. 			
	• Oxidative stress and exercise. Presentation of up-to-date research data.			
	Muscle injury and exercise	. Presentation of ι	up-to-date researc	h data.
	Biochemical screening in a	thletes		
	Face to Face			
	ECTS Load Distribution			
	_	ECTS	Hours	
l eaching	Instruction / Facilitation	2	60	
methodology	Exams Preparation	3	90	
	Learning /Portfolio Activities	3	90	
	Independent Study	2	60	
	Total	10	300	
Bibliography	 Mougios, V. Exercise Biochemistry, Human Kinetics Publishers, Champaign, Illinois, USA, (2019). ISBN: 978-1-4925-2904-0. MacLaren, D., & Morton, J. Biochemistry for Sport and Exercise Metabolism. John Wiley and Sons Ltd, Hoboken, United States (2012). ISBN: 978-0-4700-9185-2. Tiidus, P. Tupling, R. & Houston M. Biochemistry Primer for Exercise Science. (4rd Ed.). Human Kinetics Publishers, Champaign, Illinois, USA, (2012) ISBN: 978-0-7360-9605-8. Maughan, R., & Gleeson, M. The Biochemical Basis of Sports Performance (2nd Edition). Oxford Medical Publications, Oxford, UK (2010). ISBN: 978-0-1992-0828-9. Mougios, V. Exercise Biochemistry. P. Ch. Paschalides Medical Publications, Athens, Greece. (2008) ISBN: 978-9-6039-9698-9. Lehninger, S. & Nelson, D. Basic Biochemical Princibles, (Vol I) P. Ch. Paschalides Medical Publications, Athens, Greece. (2007). ISBN: 978- 9-6039-9497-8 			
	 Hargreaves, H. Exercise Publishers, Champaign, Illi 4. Maughan, R., Greenhaff, P Training. Oxford Medical P 1026 2741 4 	Metabolism. (2 inois, USA, (2006 & & Gleeson, M. B ublications, Oxfor	2ºª Ed.). Human 5). ISBN: 978-0-73 iochemistry of Exe d, UK (1997). ISB	Kinetics 360-4103- ercise and SN: 978-0-





Assessment	Mid-term exam Final exam Portfolio Assignments Participation	20% 20% 30% 20% 10% 100%
Language	Greek	





Course title	Physical Training Planning and Guidance			
Course code	SPS620			
Course type	Compulsory			
Level	Master (2 nd cycle)			
Year / semester	1 st year / 2 nd semester			
Teacher's name	Dr. Gregoris Bogdanis			
ECTS	10Lectures / week3 hrs / 7 WeeksLab / Week3 hrs / 7 Weeks			
Course aim and objectives	The aim of this course is to introduce students into the theory of training science. In addition, the course aims into providing students with the fundamental knowledge required for training program design for both athletes and general population. Moreover, specific attention will be drawn into understanding the structures and content of training procedures and human performance principles in order for students to acquire knowledge in training			
Learning outcomes	 Upon successful completion of the course, students will be able to: Describe the training principles of fitness, Describe the body requirements of trainees in terms of fitness, Describe, analyse and explain elements of training load, Analyse the annual periodization plan, Structure training units, microcycles, mesocycles and macrocycles of training for both individual and team sports, Apply the relevant training programs to improve fitness and modify 			
Prerequisists	None Co-required None			
Course content	 Basic training principles Basic principles of periodization in training Importance of exercise testing and quantifying training load for planning and guiding training Warm-up, cool-down and recovery methods after training Strength and power training program design Cardiovascular endurance training program design Flexibility training program elements Speed and agility training program design Physical conditioning training program for individual sports 			





	 Physical conditioning training programs for team sports Optimizing sport performance: peaking/tapering and overtraining 				
	Face to Face				
	ECTS Load Distribution				
Teaching methodology	Instruction / Facilitation Exams Preparation Learning /Portfolio Activities Independent Study	ECTS 2 3 3 2 2	Hours 60 90 90 60		
Bibliography	Total 1. Bompa, T. & Buzzichelli, Training-(6 th Ed.). Huma USA, (2018). ISBN: 978-	Total103001. Bompa, T. & Buzzichelli, C. Periodization: Theory and Methodology of Training-(6 th Ed.). Human Kinetics Publishers, Champaign, Illinois, USA, (2018), ISBN: 978-1-4925-4480-7.			
	 Haff, G., Triplett, N.T. & National Strength & Conditioning Associat NSCA. Essentials of Strength Training and Conditioning (4th Human Kinetics, Mitcham, Australia, (2015). ISBN: 978-1-4925- 6. Kraemer, W. & Zatsiorsky, V.M. Science and Practice of Str Training, (2nd Ed.). Human Kinetics Publishers, Champaign, II USA, (2006). ISBN: 978-1-4504-4224-4. (2006), ISBN: 978-0- 5628-1. 				
	 Joyce, D. & Lwindon, D. High-Performance Training for Sports. Human Kinetics Publishers, Champaign, Illinois, USA, (2014). ISBN: 978-1- 4504-4482-8. 				
	 Hoffman, J. Physiological Aspects of sport training and performan Human Kinetics Publishers, Champaign, Illinois, USA, (2014). ISI 978-1-4504-4224-4. Delavier, F. Trining for Muscular Strength Development (4th Ed.). Paschalides Medical Publications, Athens, Greece, (2012). ISI 9789603997405. 				
	7. Leigh, B. Velocity Train Athens, Greece, (2010). I	ing. Ch. Paschal SBN: 9789603999	ides Medical Pul 9874.	blications,	
	 American College of Sport Medicine. Directions of Exercise P and Evaluation (7th Ed.). Athlotypo Publishers, Athens, Greece, ISBN: 978-960-7378-78-1. 				
	 Dietrich, M., Klaus, C. & Claus, L. Physical Training Handbook. Taxildaris K. (Ed.) Komotini, Greece, (2000). ISBN: 960-278-069-X. Zintl, F. Endurance Training. Salto Publishers, Thessaloniki, (1993). 				





Assessment			
	Mid-term exam Final exam Portfolio Assignments Participation	20% 20% 30% 20% 10% 10%	
Language	Greek		





Course title	Physical Capacity Evaluation and Exercise Prescription			
Course code	SPS625			
Course type	Compulsory			
Level	Master's (2 nd cycle)			
Year / Semester	1 st year/ 2 nd semester			
Teacher;s name	Dr. George Panayiotou, Dr. Toumpekis Anargyros			
ECTS	10Leactures / Week3 hrs / 5 WeeksLab / Week3 hrs / 9 Weeks			
Course aims and objectives	The aim of this course is to provide students with the capacity of acquiring the fundamental knowledge in planning and executing both field and laboratory exercise testing with regards to physical conditioning and body composition in order to utilise these results and successfully design and implementation of exercise training programs for healthy and chronically ill population.			
Learning outcomes	 of exercise training programs for healthy and chronically ill population. Upon successful completion of the course, students will be able to: Record the potential health dangers due to participation in exercise and exercise testing, Describe and exhibit safety measures that should be taken during exercise testing, Record testing parameters per sport based on physical capabilities that determine sport performance. Describe and explain measure units for every maximal and submaximal laboratory or field test. Analyse, interpret and present results that derive from exercise testing and kinathropometry, Categorize and compare results against normative data. Identify and analyse limiting factors to performance as these arise from exercise testing, Design, structure, construct, supervise and evaluate application of specialised training programs, aiming in improving fitness levels based on results derived from exercise testing, Exhibit competency in identifying risk factors that occur from metabolic, respiratory, cardiovascular and musculoskeletal diseases that require clinical assessment prior to participation, Modify/adopt appropriate fitness tests and intervention programs in special populations such as children, older individuals, pregnant women and people with chronic diseases and disabilities, Apply theoretical basis of testing selection and present competency in 			





	 Present competency in use, regulation, function check and calibration of testing equipment that is commonly used in clinical exercise physiology such as respiratory gas analysers, arterial blood gases analysers and biochemical markers analysers 			
Prerequisists	None	Co-required	None	
Course content	 Testing orientation in exercise physiology Measurement-evaluation-assessment, conditions of exercise testing Muscular work assessment Cardiovascular responses assessment during exercise-heart rate- blood pressure Resting and exercise metabolic rate Pulmonary function tests Aerobic capacity Anaerobic capacity Power Range of motion Coordination, balance Anthropometry 			
Teaching methodology	Face to Face ECTS Load Distribution Instruction / Facilitation Exams Preparation Learning /Portfolio Activitie Independent Study	ECTS 2 3 es 3 2 otal 10	Hours 60 90 90 60 300	
Bibliography	 Haff, G.G. & Dumke, C. Laboratory Manual for Exercise Physiology, 2nd Ed. Human Kinetics. Champaign, Illinois, USA, (2019). ISBN: 978-1- 4925-3694-9. Bayles, M.P. & Swank, A.M. ACSM's Exercise Testing and Prescription 7th Ed. Wolters Kluwer, Philadelphia USA, (2018), ISBN: 978-1-4963- 3879-2. Gibson, A.L., Wagner, D.R. & Heyward, V. Advanced Fitness Assessment and Exercise Prescription, 8th Ed. Human Kinetics Publishers, Champaign, Illinois, USA, (2018). ISBN: 978-1-4925-6134- 7. ACSM. ACSM's Health-Related Physical Fitness Assessment Manual, 5th Ed. Wolters Kluwer, Philadelphia USA, (2018), ISBN: 978-1-4963- 3880-8. 			

ALII.A.E. DI.P.A.E.

ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ



	 ACSM. ACSM's Guidelines for Exercise Testing and Prescription 10th Ed. Wolters Kluwer, Philadelphia, USA, (2017). ISBN: 978-1-4963-3906- 5. 				
	 Kleisouras, V., Geladas, N. & Koskolou, M. Exercise Testing, (3ⁿ Ed.). Broken Hill Publishers Ltd, Nicosia, Cyprus (2015). ISBN: 978-996-325- 803-1. 				
	 Morrow, J., Mood, D., Disch, J. & Kang, M. Measurement and Evaluation in Human Performance, 5th Ed. Human Kinetics Publishers, Champaign, Illinois, USA, (2015). ISBN: 978-1-4504-7043-8. 				
	 Australian Institute of Sport, Physiological Tests for Elite Athletes, 2nd Ed. Human Kinetics Publishers, Champaign, Illinois, USA, (2013). ISBN: 978-0-7360-9711-6. 				
	 Beam, W.C. & Adams, G.M. Exercise Physiology Laboratory Manual 7th Ed. McGraw-Hill, Columbus, OH, USA, (2011). ISBN: 978-0-0780-2265- 4. 				
	10. Nieman, D.C. Exercise testing and Prescription. A health-related approach, 7 th Ed. McGraw-Hill, Columbus, OH, USA, (2010). ISBN: 978-0-0733-7648-6				
	11. Eston, R. & Reily, T. Kinanthropometry and Exercise Physiology Laboratory Manual. Tests, Procedures and Data: Anthropometry. 3 rd Ed. Routledge, New York, USA, (2009), ISBN: 978-0-415-43720-2.				
	12. Eston, R. & Reily, T. Kinanthropometry and Exercise Physiology Laboratory Manual. Tests, Procedures and Data: Physiology. 3 rd Ed. Routledge, New York, USA, (2009), ISBN: 978-0-415-43723-3.				
	13. Κέλλης, E. Neuro-mechanical Princibles of Muscular Strength Evaluation. Telethrion Publishers, Athens, Greece, (2009). ISBN: 960-8410-56-8.				
Assessment	Mid-term exam20%Final exam20%Portfolio30%Assignments20%Participation10%100%				
Language	Greek				





Course title	Applied Biomechanics				
Course Code	SPS640				
Course type	Elective				
Level	Master's (2 ⁿ	^d cycle)			
Year / Semester	2 nd year / 1 st s	emester			
Teacher's name	Dr. George P	amboris			
ECTS	10Leactures / week3 hrs / 5 WeeksLab / Week3 hrs / 5 Weeks				
Course aim and objectives	The aim of this course is to provide students with knowledge regarding applied principles of biomechanics and sporting activities assessment, in order to enhance performance and injury prevention. In addition, the course aims to develop application of basic biomechanics tools of kinetics and kinematic analysis, and data interpretation.				
Learning outcomes	 Upon successful completion of the course, students will be able to: Identify and apply basic biomechanical assessment procedure, Assess biomechanical factors that affect technique of different sports and activities, Use biomechanical and physiologic principles of isokinetic strength test, Be aware of gait cycle mechanics and running in apparently healthy clientele, Be aware of the biomechanics of basic kinetic models that are used in a number of sporting activities and exercise. Be aware of the biomechanics of major joints (shoulder, elbow, 				
Prerequisists	None Co-required None				
Course content	 Biomechanical and physiological principles of isokinetic dynamometry Application of biomechanical assessment of musculoskeletal system and sports injury prevention. Gait and running cycle biomechanical assessment. Contemporary methods of human motion analysis with 3D electro visual system wireless EMG and force platforms. Biomechanical analysis of joint motion with the highest injury frequency due to improper and unbalanced forces (hip, knee and shoulder). 				





	Face to Face				
	ECTS Load Distribution				
Taaabing		ECTS	Hours		
nethodology	Instruction / Facilitation	2	60		
methodology	Exams Preparation	3	90		
	Learning /Portfolio Activities	3	90		
	Independent Study	2	60		
	Total	10	300		
Bibliography	 Hall, S.J. Basic Bioamer Athens, Greece, (2018). I 	chanics. Parisian SBN: 978-9-6058	os Scientific Pub -3387-9	licattions,	
	 Enoka, R.M. Neuromecl Human Kinetics Publishe 978-1-4504-5880-1. 	hanics of Humai rs, Champaign, I	n Movement (5 th Ilinois, USA, (201	Edition). 5). ISBN:	
	3. McGinnis, P.M. Biomechanics of Sport and Exercise. (3 rd Edition). Human Kinetics Publishers, Champaign, Illinois, USA, (2013). ISBN: 978-0-7360-7966-2.				
	 Watkins, J. Structure and function of the Musculoskeletal sy Edition). Human Kinetics Publishers, Champaign, Illinois, US ISBN: 978- 0-7360-7890-0. 				
	 Hamill, J. & Knutzen, K.M. Fundamental Biomechanics of Human Movement. Ch. Paschalides Medical Publications, Athens, Greece, (2007). ISBN: 960-399-522-3. 				
	 Knudson, D. Fundamentals of Biomechanics. (2nd Edition). Springer, NY, USA, (2007). ISBN: 978-0-387-49311-4. 				
Assessment	Mid-term exam Final exam Portfolio Assignments Participation		20% 20% 30% 20% 10%		
Language	Greek				





Course title	Sport Nutrition				
Course code	SPS645				
Course type	Elective				
Level	Master's (2 ⁿ	^d cycle)			
Year / Semester	2 nd year / 1 st s	semester			
Teacher's name	Dr. Anastasio	os Theodorou, Dr.	Stavrie Chrysos	tomou	
ECTS	10	Lectures / week	3 hrs / 7 Weeks	Lab / Week	3 hrs / 7 Weeks
Course aims and objectives	The aim of thi and exercise. nutrition and optimizing sp	is course is to ass In addition, aims sport performanc ort performance.	ess advanced nu it aims into under ce and applicatio	itritional applicatio standing the relati on of nutritional p	ns in sports on between principles in
Learning outcomes	 Upon successful completion of the course, students will be able to: Describe the basic principles that govern sport nutrition, Explain the needs of athletes in nutritional elements depending on sport and training conditions, Understand action mechanisms of nutritional elements in sports performance, Define the importance of proper chronic energy balance, Predict potential nutritional risks of athletes, Analyse and present the latest research data regarding sports 				
Prerequisists	None	Co	-required	None	
Course content	 Sport nutrition principles. Nutrition sources and their interaction with energy production systems. Nutritional approach in endurance, power, strength, speed and team sports. Nutritional elements timing for optimizing sport performance. Nutritional intervention during exercise in extreme environment Nutritional strategies for weight reduction in combination with exercise. Exercise and lipolysis, Nutritional aids for optimizing sport performance. Nutritional aids for weight reduction and fat reduction. 				





	Oxidative stress, antioxidants and exercise.				
	Contemporary research issues in sports nutrition.				
	Face to Face				
	ECTS Load Distribution				
Table		ECTS	Hours		
l eaching methodology	Instruction / Facilitation	2	60		
mounouology	Exams Preparation	3	90		
	Learning /Portfolio Activities	3	90		
	Independent Study	2	60		
	Total	10	300		
Bibliography	 McArdle, W., Katch, F. & Ed.). Lippincott Williams 8 1-4963-7735-7. Jaukandrup A. & Classer 	Katch, V. Sports Wilkins, Baltimor	and Exercise Nu e, USA, (2019). IS	trition (5 th SBN: 978-	
	2. Jeukendrup, A. & Gleesor Publishers, Champaign, II 3.	llinois, USA, (2018	3). ISBN: 978-1-49	925-2903-	
	 Spano, M., Kruskall, L.D. & Thomas, T. Nutrition for Sport, Exercise, and Health, (1st Ed.). Human Kinetics Publishers, Champaign, Illinois, USA, (2017). ISBN: 978-1-4504-1487-6. 				
	 Burke, L. & Deakin V. Clinical Sports Nutrition. (5th Ed.). McGraw-Hill Education, New York, USA, (2015). ISBN: 978-1-7430-7368-1. 				
	 Manore, M., Meyer, N. & Thompson, J. Sport Nutrition for Health and Performance, (2nd Ed.). Human Kinetics Publishers, Champaign, Illinois, USA, (2009). ISBN: 978-0-7360-5295-5. 				
	6. Antonio, J., Kalman, D., Stout, J.R., Greenwood, M., Willoughby, D. & Haff, G. G. Essentials of Sports Nutrition and Supplements. Humana Press, New York, USA, (2008). ISBN: 978-1-5882-9611-5.				
	 Maughan, R. & Burke, M.L. Sport Nutrition. Ch. Paschalides Medical Publications, Athens, Greece, (2006). ISBN: 978-9-6039-9309-4. 				
	 Maughan, R., Greenhaff, P. & Gleeson, M. Biochemistry of Exercise and Training. Oxford Medical Publications, Oxford, UK (1997). ISBN: 978-0-1926-2741-4. 				
Assessment	Mid-term exam Final exam Portfolio Assignments Participation		20% 20% 30% 20% 10% 00%		
Language	Greek				









Course title	Prevention and Rehabilitation of Athletic Injuries				
Course code	SPS650				
Course type	Elective				
Level	Master's (2 ⁿ	^d cycle)			
Year / semester	2 nd year / 1 st s	semester			
Teacher's name	Prof. Anastas	ia Beneka			
ECTS	10	Lectures / week	3 hrs / 7 Weeks	Lab / Week	3 hrs / 7 Weeks
Course aims and objectives	The aim of this course is to provide students with fundamental medical knowledge that relate to sport performance, taking into consideration health promotion in conjunction with sport performance. In addition, this course aims to provide a complete practical and research/evidence based knowledge in topics related to injury prevention and rehabilitation.				
Learning outcomes	 Upon successful completion of the course, students will be able to: Define and explain musculoskeletal, cardiovascular, respiratory and gastrointestinal symptoms during exercise, Identify major musculoskeletal and visceral injuries and their impact in sport activities, Suggest the use of aids that can be used as protective equipment for injury prevention in sports, Define the concept of sport injury, overuse syndrome and various injuries epidemiology, Identify the importance of rehabilitation and functional capacity following an injury, Understand the pathophysiology of athletic injuries and understand the principles and stages of rehabilitation of upper and lower 				
Prerequisists	None	Со	o-required	None	
Course content	 Athletes' medical issues. Sports medicine support in sports. Medical prevention during organisation of sport events. Team medical care. Hygiene issues. Cardiovascular, respiratory and gastrointestinal symptoms during exercise. 				





	 Common sporting injuries (cranio-fascial injuries, eye, ear, face, oral cavity, larynx, spine, shoulder girdle, arm, elbow, forearm, wrist, hand, pelvis, hip, thigh, knee, shin, ankle, foot). 				
	 Special sports medicine issues (overuse syndrome, pre-participation screening, team and individual sport injuries). 				
	Principles of diagnosis,	therapy and rehab	vilitation.		
	Athletic rehabilitation.				
	 Sport injury prevention screening. 	on and pre-par	ticipation muscul	oskeletal	
	 Musculoskeletal injuries 	pathophysiology.			
	 Sport injury assessment 				
	 Acute sport injury management 	gement.			
	 Systematic progressive criteria. 	functional rehabi	litation and return	to sport	
	Face to Face				
	ECTS Load Distribution				
Toophing		ECTS	Hours		
methodology	Instruction / Facilitation	2	60		
	Exams Preparation	3	90		
	Independent Study	2	<u>90</u> 60		
	Total	10	300		
Bibliography	 Brukner, P., Clarsen, B., Cook, J., Cools, A., Crossley, K., Hutchinson, M., McCrory, P., Bahr, R. & Khan. Brukner & Khans Clinical Sports Medicine Injuries Vol 1, (5th Ed.) McGraw-Hill, Columbus, OH, USA, (2016) JSBN: 978-1-7437-6138-0 				
	 Brukner, P. & Khan, K. Clinical Sports Medicine: The Medicine of Exercise 5e Vol 2, (5th Ed.) McGraw-Hill, Columbus, OH, USA, (2019). ISBN: 978-1-7604-2051-2. 				
	 Joyce, D. Sports Injury Prevention and Rehabilitation (1st Ed.). Routledge, Abingdon-on-Thames, UK (2015). ISBN: 978-0-4158-1506- 2. 				
	 McDonagh D.OS. Micheli, L.J., Frontera, W.R., Pigozzi, F., Grimm, K., Butler, C.F., Smith A.D., Budgett, R., Parisis, C. & Lereim, I. FIMS Sports Medicine Manual: Event Planning and Emergency Care (1st Ed.). Lippincott Williams & Wilkins, Baltimore, USA, (2011). ISBN 978- 1-5825-5873-8. 				
	5. Comfort, P. & Abrahar Prevention. Willey-Blackv	mson E. Sports vell, U.K., (2010).	Rehabilitation an ISBN: 978-0-470-9	id Injury 8563-2.	
	6. Baltopoulos, P. Sport M. Publications, Athens, Gre	edicine. Volume I ecce, (2002). ISBN	. Ch. Paschalides l: 960-399-929-4	Medical	





	 Baltopoulos, P. Sport Medicine. Volume II. Ch. Paschalides Medical Publications, Athens, Greece, (2002). ISBN: 960-399-930-0 				
	 Iversen, R.S. & Richard, D.I. Sport Injuries. Prevention and Rehabilitation. Telethrion Publications, Athens, Greece, (2007). ISBN: 960-8410-51-7. 				
	 Sherry, E. & Wilson, S. Oxford Sport Medicine Handbook. Ch. Paschalides Medical Publications, Athens, Greece, (2007). ISBN: 978- 960-399-411-1 				
	10. Frontera, W.R., Herring, S.A., Micheli, L.J. & Silver, J.K. Clinical Sports Medicine. Saunders Elsevier, Philadelphia, USA, (2006). ISBN: 978-1- 4160-2443-9				
	 Prentice, W. Sport Injuries Rehabilitation Techniques. Ch. Paschalides Medical Publications, Athens, Greece, (2004). ISBN: 960-394-449-1. 				
Assessment	Mid-term exam Final exam Portfolio Assignments Participation	20% 20% 30% 20% 10% 100%			
Language	Greek				





Course Title	Applied Clinical Exercise Physiology					
Course Code	SPS655					
Course Type	Elective					
Level	Master's (2 ⁿ	^d cycle)				
Year / Semester	2 nd year/ 1 st S	Semester				
Teacher	Dr. George P	anayiotou				
ECTS	10	Lectures / We	ek	3 hrs / 7 Weeks	Lab / Week	3 hrs / 7 Weeks
Course aims and objectives	The main objective of this course is to provide students with knowledge on issues regarding the impact/effect of exercise on functional capacity on patients with chronic diseases and disabilities. In addition, it takes into consideration the interaction between medication and exercise, as well as organising and carrying out pre-participation screening and clinical assessments. Moreover, it aims to provide understanding of the limitations of exercise and functional capacity due to diseases, particularly exercise for special populations such as metabolic, cardiovascular and respiratory diseases. Finally, it aims to inform about the impact of systematic exercise on the manifestation of chronic diseases, morbidity reduction, quality of life					
Learning outcomes	 Upon successful completion of the course, students will be able to: Record physical limitations as a result of chronic disease, Describe the pathophysiology that dictate limitation of functional capacity, Present and interpret fitness and functional capacity assessment results of chronic patients, Stratify the impact of exercise and physical activity on chronic diseases, Plan, design and structure exercise and physical activity training programs for special populations, Identify the risk level for different diseases on participation in exercise 					
Prerequisites	SPS605: Applied Exercise Physiology Required None					
Course Content	• Exerc 0 0	ise, health and Guidance-reg Aerobic Capa	well-k gulatio acity	being on of training p	procedures	

ΔI.Π.Α.Ε. DI.P.A.E.



	o Strength
	o Mobility
	o Co-ordination
	o Speed
	Exercise and special populations
	 Exercise for children
	 Exercise for the elderly
	Cardiac diseases
	 Coronary heart disease
	 Congestive heart failure
	 Valvular diseases
	Vascular diseases
	o Hypertension
	 Hyperlipidaemia και Dyslipidaemia
	 Exercise and chronic respiratory diseases
	 Chronic obstructive pulmonary disease
	o Asthma
	Metabolic diseases
	o Diabetes
	 Obesity
	 Metabolic syndrome
	Exercise and renal diseases
	Skeletal system diseases
	 Osteoporosis
	 Osteoarthritis
	 Rheumatoid arthritis
	Immune system diseases
	o Cancer
	 Acquired Immuno-Deficiency Syndrome (AIDS)
	Neuromuscular diseases
	 Multiple Sclerosis
	 Cerebral Palsy
	o Alzheimer
	o Parkinson
	 Exercise, stress and anxiety
	Exercise and depression
Teaching	Face to Face
methodolv	FCTS Load Distribution
j	





		ECTS	Hours			
	Instruction / Facilitation	2	60			
	Exams Preparation	3	90			
	Learning /Portfolio Activities	3	90			
	Independent Study	2	60			
	Total	10	300			
Bibliography	 Thompson, W.R. ACS Kinetics Champaign Illin Taylor, A. & Johnson, M 	M's Clinical Exe bis, USA (2019). IS A Physiology of E	rcise Physiology SBN: 9-781-4963-8 xercise and Healt	. Human 3780-6 hv Aging.		
	Human Kinetics Champ 5838-4	aign Illinois, USA	(2019). ISBN: 9-7	780-7360-		
	 Ehrman, J., Gordon, P. Physiology. 4th Edition (2018). ISBN: 978-1-492 	, Visich, P. & Ket Human Kinetics 5-8849-8	eyian, S. Clinical Champaign Illin	Exercise ois, USA		
	 Coast, J.R., & Oden, G Assessments in Health Kendall Hunt Publishing 978-1-5249-0159-2 	Coast, J.R., & Oden, G. Clinical Exercise Physiology: Physiologic Assessments in Health Disease and Sport Performance, 3 rd Ed Kendall Hunt Publishing Company Dubuque, IA, USA (2017). ISBN 978-1-5249-0159-2				
	 Moore, G.E., Durstine Management for Perso Human Kinetics Champ 3414-0 	 Moore, G.E., Durstine, J.L & Painter, P.L. ACSM's Exe Management for Persons with Chronic Diseases and Disabi Human Kinetics Champaign Illinois, USA (2016). ISBN: 978-1-4 3414-0 				
	 Scott, A. & Gidlow, C. Clinical Exercise Science. Routledge, Abing UK and New York, (2016). ISBN: 9-781-1346-1784-5 					
	 Chodzko-Zajko, W. ACS Champaign Illinois, USA 	Chodzko-Zajko, W. ACSM's Exercise for Older Adults. Human Kinetics Champaign Illinois, USA (2014). ISBN: 978-1-6091-3647-5				
	 Exercise Alliance for He Rehabilitation of http://www.exerciseforhe 	Exercise Alliance for Health. Exercise as a means of prevention a Rehabilitation of Chronic Diseases. (201 http://www.exerciseforhealth.gr				
	 Goodman, C, & Helgeso Conditions: Handbook f USA. ISBN-13: 978-080 	o, K. (2011). Exerc or Physical Thera <mark>;</mark> 3617148	ise Prescription fo bists. F.A. Davis (or Medical Company,		
	10. Myers, J. & American Co for Clinical Exercise F Neoplastic, Immunolog Kluwer, Philadelphia, US	bllege of Sports Me hysiology: Muscu ic, and Hematol SA, (2010). ISBN: 9	edicine. ACSM's F loskeletal, Neuro ogic Conditions. 178-0-7817-6870-2	Resources muscular, Wolters 2		
	11. Buckley, J.P. Exercise Livingstone/Elsevier New	Physiology in Spo v York, (2008). ISB	ecial Populations N: 978044310343	Churchill 38		
	12. Tokmakidis, S. & Volak Coronary Disease Patie Athens, Greece, (2008).	lis, K. Exercise as nts. P. Ch. Pascha ISBN: 978-960-39	a Therapeutical alides Medical Pul 9-680-4	Means in plications,		
	 Dustine, J. & Moore, Disabilitiesς". P. Ch. Greece, (2005). ISBN: 9 	G. "ACMS's Exer Paschalides Med 60-399-329-8.	cise, Chronic Dis ical Publications,	seases & Athens,		







	 Skinner, J.S. Exercise Testing and Prescription for Special Cases: Theoretical Basis and Clinical Application. Lippincott Williams & Wilkins, Baltimore, USA, (2005). ISBN: 978-0-7817-4113-2 				
	 Volaklis, K. & Tokmadidis, S. Exercise in Acute Rehabilitation in Patients with Myocardial Infraction. P. Ch. Paschalides Medical Publications, Athens, Greece, (2005). ISBN: 978-960-399-299-8. 				
	 Bar-Or, O. & Rowland, T. Pediatric Exercise Medicine: From Physiologic Principles to Health Care Application. Human Kinetics Champaign Illinois, USA, (2004). ISBN: 9-780-8801-1597-1 				
	 Tokmakidis, S. Exercise and Chronic Diseases. P. Ch. Paschalides Medical Publications, Athens, Greece, (2003). ISBN: 978-960-399- 079-6 				
	 LeMura, L.M. & Von Duvillard, S.P. Clinical exercise physiology: application and physiological principles. Lippincott Williams & Wilkins, Baltimore, USA, (2003). ISBN: 0-7817-2680-8 				
Assesment	Mid-term exam Final exam Portfolio Assignments Participation	20% 20% 30% 20% 10% 100%			
Language	Greek				





Course Title	Masters' Thesis			
Course Code	SPS690			
Course Type	Compulsory			
Level	Master (2 nd Cycle)			
Year / Semester	2 nd Year / 1 st Semester			
Teacher's Name	Dr. Irene Tzanetakou, Dr. Andreas Avgerinos			
ECTS	30 Lectures / week $3 hrs / 4$ Weeks Lab / Week $3 hrs / 10$ Weeks			
Course Purpose and Objectives	This course aims in providing students with all the necessary resources needed to design, organize and implement a scientific study, as well as to analyze, document and present its content. The ultimate goal of the course is to complete a scientific paper as well as to support it through an oral presentation under the individual guidance and supervision of a three-member advisory committee as well as by the person in charge of the particular course			
Learning Outcomes	 Upon successful completion of the course, students will be able to: List with a reasonable chronological order the steps required to organize and implement a bibliographic review and experimental work, Identify and recognize scientific sources related to the subject matter by searching in scientific and electronic databases and critically extracting scientific information, Describe and explain the structure of scientific articles, summarize their content clearly and compose it in a single text, Evaluate and discuss issues related to research bioethics and ethics, Design, organize, compile and implement a descriptive bibliographic review and an experimental study on the subject of sports science in accordance to international standards and using reputable bibliographic systems, Clearly present the problem, purpose, methodology and results arising from the analysis of the data of an experimental study, as well as document the findings and compare them critically with findings from other studies. Prepare and carry out the presentation of a scientific paper by 			





Prerequisites	Methods and Biostatistics	Co-requisites	SPS600			
	GPA before course enrolment: 2.5					
Course Content	Preparation and presentation of a research proposal: The student, under the guidance of their supervisor, prepares a research proposal on the subject they have been assigned. The matter is finalized after the written consent of the Three-member Committee has been received and submitted to the Secretariat of the Department of Sciences					
	Course attendance: The student participates in pre-defined lectures for the dissertation thesis, in which specific topics related to different types of scientific work in sports are discussed. In addition, the implementation of research as well as the writing and presentation of work is analyzed.					
	Supervision and guidance: At specific stages of work, meetings are held between a student and a three-member committee to discuss the progress of the work and to receive guidance and feedback.					
	Project Presentation: After completing the scientific search the student writes his / her work according to the instructions given in the Diploma Work Guide. After the three-member committee accepts the final text, the student receives a presentation date to present their work. After being accepted and assessed by the Three-Member Committee, the student delivers the final text to the Department's Secretariat in order to receive their grade					
Teaching	Face- to- face					
Methodology	ECTS Load Distribution					
		ECTS	Hours			
	Instruction / Facilitation	1	30			
	Independent Study / Experimental Procedure	es 28	840			
	Presenation	1	30			
		Total 30	900			
Bibliography	 Guide to the Postgraduate Dissertation. Library of the European University of Cyprus, Nicosia, Cyprus. 					
	 Norusis, M. J. IBM SPSS Statistics 19 Guide to Data Analysis. Addison Wesley, Boston, USA (2019). ISBN-13: 978-0-321- 74841-6 					
	 Galanis, P. A. Healthcare Data Analysis Research Methodology. Applications with IBM SPSS statistics. P. Ch. Paschalides Medical Publications, Athens, Greece, (2015). ISBN: 978-9- 9632-5805-5 					





4. Thomas, J.R., Nelson, J.K. & Silverman, S.J. Research Methods in Physical Activity, (7th Ed.). Human Kinetics, Champaign, Illinois, USA. (2015). ISBN: 978-1-4504-7044-5 5. Darviri, Ch. Research Methodology in Healthcare, P. Ch. Paschalides Medical Publications, Athens, Greece, (2009). ISBN: 978-9-6039-9915-7 6. Sachini - Kardasi A. Research Methodology. Applications in Healthcare, Beta Publications, Athens, Greece, (2007). ISBN: 978-9-6073-0880-1

Assessment Master Thesis Presentation	Master Thesis	60%	
	Presentation	40%	
		100%	





Language	Greek





Course Title	Quantitative Approaches in Health Science Research						
Course Code	SPS630	SPS630					
Course Type	Elective						
Level	Master (2 nd (Cycle)					
Year / Semester	2 nd Year/1 st ;	Semester					
Teacher's Name	Dr. Irene Tz	anetakou					
ECTS	10	10Lectures / week3 hrs / 4 WeeksLab / Week3 hrs / 10 Weeks					
Course Purpose and Objectives	This course aims at introducing students to recent topics related to quantitative research approaches. Its purpose is to help students to plan and apply statistical techniques used to investigate issues related to Life Sciences. The course focuses on the basic techniques of descriptive and inductive statistics, focusing on the understanding of techniques, the interpretation and presentation of results, and the analysis of empirical data using statistical packate						
Learning Outcomes	 Upon successful completion of the course, students will be able to: Launch research questions and hypotheses to design data collection, Analyse data with appropriate statistical techniques to answer to specific research questions and study hypotheses, Explain the basic concepts and procedures used in quantitative data analysis for educational research purposes in Life Sciences, Use statistical software packages for the entry, processing and analysis of research data, Interpret and present results of statistical analysis, Explain and analyse high level research studies in the field of Life 						
Prerequisites	SPS600. Research Methods and BiostatisticsCo-requisitesNoneGrade point averageCo-requisitesNone						
Course Content	(GPA): 2.5 Course Content: Description • Formulation of research and statistical hypotheses,						



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В



	 Organization and presentation of data, 					
	 Descriptive statistics: measures of central tendency, dispersion and curvature measurements, 					
	 Probability, probability models, sampling, principles of inductive statistics, 					
	 Case tests for average, percentage, and dispersion for one and two samples, 					
	Confidence intervals,					
	 Analyzing variance, 					
	Correlation and linear reg	gression (single ar	nd multiple) indice	s,		
	Non-parametric statistica	l controls,				
	Use of statistical software packages for data entry, processing and analysis.					
	Face- to- face					
	ECTS Load Distribution					
aching		ECTS	Hours			
ethodology	Instruction / Facilitation	2	60			
ethodology	Exams Preparation	3	90			
	Learning /Portfolio Activities	3	90			
	Independent Study	2	60			
	Total	10	300			
bliography	 Norusis, M. J. IBM SPSS Statistics 19 Guide to Data Analysis. Addison Wesley, Boston, USA (2019). ISBN: 978-0-321-74841- 6. 					
	 Aschengrau, A. & Seage, G.R III. Essentials of Epidemiology in Public Health. Jones & Bartlett Learning, Massachusetts, USA 					

(2018). ISBN: 978-1-2841-2835-2. 3. Armstrong, L.E. & Kraemer, W.J. ACSM's Research Methods. Wolters Kluwer, Philadelphia, USA, (2016). ISBN: 978-1-4511-9174-5.

- **4.** Galanis, P. A. Healthcare Data Analysis Research Methodology. Applications with IBM SPSS statistics. P. Ch. Paschalides Medical Publications, Athens, Greece, (2015). ISBN: 978-9-9632-5805-5
- 5. Thomas, J.R., Nelson, J.K. & Silverman, S.J. Research Methods in Physical Activity, (7th Ed.). Human Kinetics, Champaign, Illinois, USA. (2015). ISBN: 978-1-4504-7044-5.
- 6. Laake, P., Benestad, H. & Olsen B. Research in Medical and Biological Sciences: From Planning and Preparation to Grant Application and Publication. Academic Press, Massachusetts, USA. (2015). ISBN: 978-0-1279-9943-2.
- 7. Gerstman, B.B. Epidemiology Kept Simple: An Introduction to Traditional and Modern Epidemiology, (3rd Ed.). Wiley-

ΔΙ.Π.Α.Ε. ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ



	Blackwell, New Jersey, USA. (2013). ISBN: 978-1-4443-3608-				
	 Supino, P.G., Borer, J.S. Principles of Research Methodology: A Guide for Clinical Investigators. Springer, New York, USA, (2012). ISBN: 978-1-4614-3359-0. 				
	 Trichopoulos, D. & Lagiou, D.P. General & Clinical Epidemiology. Principals, Methodology, and Applications in Medical Research and Public Health (2nd Ed.). Parisianos Publications U.C., Metamorfosi, Athens, Greece, (2011). ISBN: 978-9-6039-4727-1. 				
	10. Darviri, Ch. Research Methodology in Healthcare, P. Ch. Paschalides Medical Publications, Athens, Greece, (2009). ISBN: 978-9-6039-9915-7				
	11. Sachini - Kardasi A. Research Methodology. Applications in Healthcare, Beta Publications, Athens, Greece, (2007). ISBN: 978-9-6073-0880-1				
	12. Bonita, R. & Beaglehole, R. Basic Epidemiology, (2nd Ed.). World Health Organization. Geneva, Switzerland, (2006). ISBN: 978-9-2415-4707-9.				
	13. Sparos, L. Post-Epidemiology or Applied Medical Research. Cause-gnostics, Dia-gnostics, Pro-gnostics. BETA Publications, Athens, Greece, (2001). ISBN: 978-9-6080-7133-9.				
	 Laake P., Benestad H. & Olsen B. Research Methodology in the Medical and Biological Sciences. Academic Press, London, UK. (2007). ISBN: 978-0-1237-3874-5. 				
Assessment	Mid-term exam20%Final exam20%Portfolio30%Assignments20%Participation10%100%				
Language	Greek				





Course Title	Qualitative Approaches in Health Science Research					
Course Code	SPS635					
Course Type	Elective					
Level	Master (2 nd (Cycle)				
Year / Semester	2 nd Year/1 st :	Semester				
Teacher's Name	Dr. Irene Tza	anetakou				
ECTS	10Lectures / week3 hrs / 4 WeeksLab / Week3 hrs / 10 Weeks					
Course Purpose and Objectives	The aim of the course is to study the philosophical background on which qualitative research is based and to introduce students to recent topics related to quality research approaches in Life Sciences. It also intends to train students qualitative research method examples, as well as in interpreting and evaluating published qualitative research surveys in Life Sciences. In addition, it aims to further develop the students' skills in the design, implementation and presentation of simple and advanced quality research surveys around Life Sciences.					
Learning Outcomes	 Upon successful completion of the course, students will be able to: Explain recent qualitative research approaches in Life Sciences, Explain the theoretical and epistemological principles on which the various qualitative research approaches are based, Highlight the characteristics of different research methodologies of qualitative research and how they have been applied in the field of Life Sciences, Discuss the practical dimensions of quality research and, in particular, ethnographic research in Life Sciences Develop quality research projects in the field of Life Sciences (including methods of collecting and analyzing quality data) according to the research objectives and research questions that have been set, Recognize and discuss dilemmas on core issues related to the implementation and acceptance of quality approaches to Life Sciences. To be a critical reviewer of quality educational research from the 					





Prerequisites	SPS600. Research Methods and Biostatistics Grade point average	Co-req	uisites	None	
Course Content	Course Content: Description				
	 Introduction to Lifering principles, 	fe Scien	ces: Theore	etical and epistemological	
	 Historical review Subjectivity, 	of qu	alitative re	search: Objectivity and	
	 Research Model Research, Ethno etc., 	ls / Me graphy,	ethodologie: Founded	s: Case Study, Action Theory, Phenomenology,	
	Theoretical frameworks in qualitative research: Feminist approaches to data analysis, post-structuralism, critical theories etc.				
	 Issues of credibility 	ty, validit	ty and mora	lity in quality research,	
	 Development of re 	esearch	questions o	f qualitative research,	
	 Design research, data collection and ensure access to databases. 				
	Face- to- face				
	ECTS Load Distribution				
			ECTS	Hours	
	Instruction / Facilitation	Ĺ	2	60	
Teaching	Exams Preparation		3	90	
Methodology	Learning /Portfolio Activ	vities	3	90	
	Independent Study	Total	<u> </u>	300	
		Total	10	300	
Bibliography	 Norusis, M. J. IBM SPSS Statistics 19 Guide to Data Analysis. Addison Wesley, Boston, USA (2019). ISBN: 978-0-321-74841- 6. 				
	 Aschengrau, A. & Seage, G.R III. Essentials of Epidemiology in Public Health. Jones & Bartlett Learning, Massachusetts, USA (2018). ISBN: 978-1-2841-2835-2. 				
	 Armstrong, L.E. & Kraemer, W.J. ACSM's Research Methods. Wolters Kluwer, Philadelphia, USA, (2016). ISBN: 978-1-4511- 9174-5. 				





	 Galanis, P. A. Healthcare Data Analysis Research Methodology. Applications with IBM SPSS statistics. P. Ch. Paschalides Medical Publications, Athens, Greece, (2015). ISBN: 978-9-9632-5805-5
	 Thomas, J.R., Nelson, J.K. & Silverman, S.J. Research Methods in Physical Activity, (7th Ed.). Human Kinetics, Champaign, Illinois, USA. (2015). ISBN: 978-1-4504-7044-5.
	 Laake, P., Benestad, H. & Olsen B. Research in Medical and Biological Sciences: From Planning and Preparation to Grant Application and Publication. Academic Press, Massachusetts, USA. (2015). ISBN: 978-0-1279-9943-2.
	 Gerstman, B.B. Epidemiology Kept Simple: An Introduction to Traditional and Modern Epidemiology, (3rd Ed.). Wiley- Blackwell, New Jersey, USA. (2013). ISBN: 978-1-4443-3608- 5.
	 Supino, P.G., Borer, J.S. Principles of Research Methodology: A Guide for Clinical Investigators. Springer, New York, USA, (2012). ISBN: 978-1-4614-3359-0.
	 Trichopoulos, D. & Lagiou, D.P. General & Clinical Epidemiology. Principals, Methodology, and Applications in Medical Research and Public Health (2nd Ed.). Parisianos Publications U.C., Metamorfosi, Athens, Greece, (2011). ISBN: 978-9-6039-4727-1.
	10. Darviri, Ch. Research Methodology in Healthcare, P. Ch. Paschalides Medical Publications, Athens, Greece, (2009). ISBN: 978-9-6039-9915-7
	11. Sachini - Kardasi A. Research Methodology. Applications in Healthcare, Beta Publications, Athens, Greece, (2007). ISBN: 978-9-6073-0880-1
	12. Bonita, R. & Beaglehole, R. Basic Epidemiology, (2nd Ed.). World Health Organization. Geneva, Switzerland, (2006). ISBN: 978-9-2415-4707-9.
	13. Sparos, L. Post-Epidemiology or Applied Medical Research. Cause-gnostics, Dia-gnostics, Pro-gnostics. BETA Publications, Athens, Greece, (2001). ISBN: 978-9-6080-7133-9.
	 Laake P., Benestad H. & Olsen B. Research Methodology in the Medical and Biological Sciences. Academic Press, London, UK. (2007). ISBN: 978-0-1237-3874-5.
Assessment	Mid-term exam20%Final exam20%Portfolio30%Assignments20%Participation10%100%100%





Language	Greek
Language	Greek



SCHOOL:	SCIENCES
DEPARTMENT:	LIFE SCIENCES

COURSE OUTLINE

Course Information				
Course Title:				
Mode of Delivery: Conventional				
Course Code & Section:	Semester: SPRING 2021			
Day and Time:	Lecture Room No.: Lab Room No.:			
Prerequisite(s): Co-requisite(s):	ECTS:			
Level: Master (2 nd Cycle)	Lecture Hours per week:	Laboratory Hours per week:		
Type of Course: Compulsory or Electiv	/e			
Instructor Information				
Name:				
Office Room No.:	Office Telephone Nur	nber:		
E-Mail:				
Website Link:				
Website/Links				
University Website: www.euc.ac.cy				
EUC App: https://mobile.euc.ac.cy/				



COURSE DESCRIPTION:

Copy and paste the 'Course Description' from the latest approved version of the course syllabus.

LEARNING OUTCOMES:

Copy and paste the 'Learning Outcomes' from the latest approved version of the course syllabus.

SUGGESTED TEXTBOOK(S):

RECOMMENDED/ADDITIONAL READINGS:

The Copyright Law on Data Protection in Cyprus and the European Union 'Copyright' is the legal term used to describe the rights given to an author to protect his/her original work. The Law protects this work from being copied without permission and upholds the author's right to derive an income from his/her work.

It is an offence to photocopy *more than 10% or one chapter* (whichever is the greater) of the course textbook or any other textbook, which is not less than 10 pages long. The photocopy must be for *personal* use only.

Possession of substantial photocopied material (such as a whole textbook) on the campus of the European University Cyprus can result in disciplinary measures by the institution and by the Law enforcement authorities.

Buy your course textbook and keep it forever! It offers you a better deal in visual learning skills, course links, and online data bases. and Cyprus can maintain a good name in the academic community!



WEEKLY BREAKDOWN (excluding Christmas and Easter Holidays):				
WEEK	TOPIC			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14	FINAL EXAMS			

GRADE DISTRIBUTION:	
DESCRIPTION:	PERCENTAGE
1. Midterm examination	%
2. Final examination	%
3.	%
4.	%
TOTAL	100%

ADDITIONAL NOTES:

- 1. The basic textbook(s) and/or the recommended/additional readings listed in this course outline are the responsibility of the student to purchase, as per instructed by the Course Instructor.
- 2. The final examination for this course will be taking place between **24/05-04/06/2021**. The final date and time will be provided at a later stage.
- 3. For a student who fails (one time) a course, see the 'Resit of the Final Examination' policy of European University Cyprus (EUC) at the EUC website here https://www.euc.ac.cy/en/current-students/academic-policies--regulations
- 4. Students with learning difficulties and disabilities are strongly encouraged to contact before the end of the third week of each academic semester the committee E.Φ.Ε.Ε.Α. at [e] <u>y.christofi@euc.ac.cy</u> and [t]+357 22559509], in order to ensure that the appropriate academic accommodations and support will be provided to them throughout the semester, as well as during the final examination.
- **5.** Please remember to evaluate this course electronically, always in alignment to the guidelines that will be provided. The evaluation period will be announced



Attendance policy

Policy of class attendance and assignment submission

Graduate programs

The Department of Life Sciences of the European University Cyprus has determined the following policy with regard to attendance and assignment submission in order to ensure that maximum teaching efficiency is achieved and actual learning is accomplished.

Absences limit:

- 1. **Theory:** Up to 4 absences or up to 33.3% of teaching time.
- 2. Laboratories: Up to 2 absences or up to 16.7% of teaching time.
- 3. **Practice (clinical or other):** The defined by Cyprus legislation and respective study guides number of hours.

Attendance:

In order to facilitate the smooth running of lectures during the semester, students should attend classes on time, otherwise they will not be accepted until the next teaching period (after the break) while their absence will be recorded accordingly.

The absences limit will be reached when the maximum allowed number of absences has been recorded. More specifically, three (3) absences could correspond to either 3 absences on 3 different dates that a three-hour course is being taught or to absence from a total number of 9 teaching hours on different dates (including being late or leaving early).

Regarding the clinical or other practice, the respective study guides provide appropriate guidelines. In the unlikely event that a student does not attend his/her practice facility but his/her absence is properly justified and documented, he/she will be required to extend the practice period by the number of hours/days that were lost. Even during practice, students are expected to attend their placement facility on time and leave at the designated time. Failure to do so will result in recording of absence, as described above.

Class participation:

Class participation and the respective grading, does not only correspond to the physical presence of students in class but rather to their active participation during the lecture. Asking and answering questions, making arguments, defending a view or articulating a thought and participating in the dialogue generated in class, are a few examples of what is considered as active participation. The instructor of each course is responsible to determine and evaluate each student's participation.



Absence justification:

In order to evaluate the justification provided for a student's absence in a lecture or exam, the following criteria must be met:

- **1.** The instructor should have been informed of the prospective absence prior to it or 48h after it, the latest.
- 2. Proper documentation should be provided to the course instructor by e-mail along with a written explanation of the reasons that prevented him/her from attending class/exam. This documentation has to be received within one (1) week from the date when the student did not attend the class (the latest).

It goes without saying that failure to conform to one of the two criteria will result in denial to reconsider justification of the respective absence. Moreover, it should also be noted that presenting the documentation as described above does not by itself mean that the absence is justified as this has to be considered by the Departmental Council whose decisions will be made clear to both the instructor and student.

The following are considered as possible reasons for justification of an absence <u>following proper</u> <u>documentation</u>:

- 1. Sickness /injury
- 2. Military service
- 3. Court service
- 4. Participation in an international sports event/race
- 5. Other significant reasons (to be judged by the Departmental Council)

Absence justification should, by no means, result in "loss" of more than **50%** of theory or **30%** of laboratory classes (regardless of the underlying reason).

Hybrid courses:

Attendance policy in hybrid courses (with regard to the distance learning part of the course) is determined by the instructor and is monitored through the respective electronic platform.

Submission of assignments/projects:

In order to ensure that no discrimination takes place among students, deadlines are strictly followed. Thus, late submission of an assignment/project will result in either its rejection (no grade given for it), or in grade reduction, as the instructor deems necessary.



GRADING STSTEM:								
UNDERGRADUATE					GRADUATE			
Letter Grade	Grade Meaning	Grade Points	Percentage Grade		Letter Grade	Grade Meaning	Grade Points	Percentage Grade
A	Excellent	4.0	90 and above		A	Excellent	4.0	90 and above
B+	Very Good	3.5	85-89		B+	Very Good	3.5	85-89
В	Good	3.0	80-84		В	Good	3.0	80-84
C+	Above	2.5	75-79		C+	Above	2.5	75-79
	Average					Average		
С	Average	2.0	70-74		С	Average	2.0	70-74
D+	Below	1.5	65-69					
	Average							
D	Poor	1.0	60-64					
F	Failure	0			F	Failure	0	
I	Incomplete	0				Incomplete	0	
W	Withdrawal	0			W	Withdrawal	0	
Р	Pass	0			Р	Pass	0	
AU	Audit	0			AU	Audit	0	

(a) The grade "I" is awarded to a student who has maintained satisfactory performance in a course but was unable to complete a major portion of course work (e.g. assignment/paper or final exam) and the reasons given are acceptable to the instructor. It is the responsibility of the student to bring pertinent information to the instructor to justify the reasons for the missing work and to reach an agreement on the means by which the remaining course requirements will be satisfied. A student is responsible, after consulting with the instructor, for fulfilling the remaining course requirements within the first four weeks of the following semester for which an "I was awarded. In very special cases, the instructor may extend the existing incomplete grade to the next semester. Failure of the student to complete work within this specific time-limit will result in an "F" which will be recorded as the final grade.
(b) The grade "W" indicates withdrawal from the course before the specified time as

explained in the withdrawal policy.

(c) Grades of "P" will not be computed into a student's cumulative grade point average but will count towards graduation credits.

(d) Grades of "F" will be computed into the student's cumulative grade point average.

(e) Students enrolling for an Audit must designate their intent to enrol on an Audit basis at the time of registration. Students registering for a course on an Audit basis receive no credit.



UNIVERSITY EMAILS:

The University has taken the decision that all students, attending any University program of study, make use of the EUC email addresses when corresponding with EUC academic and administration staff, as well as all scientific collaborators and special scientists. It should be noted that the EUC staff will not be replying to any non-official EUC University email addresses.

UNIVERSITY EMAIL SUPPORT:

Kindly contact support@euc.ac.cy in case you do not know your University email address or face any difficulty in using it.

LIBRARY:

OpenAthens (http://openathens.euc.ac.cy/) is an Identity and Access Management System used to authenticate eligible students, faculty and staff to the electronic resources delivered by the library of the European University Cyprus. More importantly, OpenAthens provides the user with single sign-on access to both internal and external web-based resources. Student credentials are the same EUC email and password that is used to access the EUC student portal and library account.

Additionally, students and instructors can find the relevant **textbooks** used for their courses, in the **e-textbook list**, that is uploaded in the **EUC STUDENTS PORTAL**. The list includes the course number, the title and author of the suggested textbook, as well as the publisher's **link**. Students can click on the publisher's link and buy, if they wish, their textbook, either in print version or electronic, if available.

INTERNAL REGULATIONS ON ACADEMIC ETHICS AND STUDENTS' DISCIPLINE

1. PREAMBLE

E.U.C. European University - Cyprus is a community of scholars in which the ideals of freedom of inquiry, freedom of thought, freedom of expression, and freedom of the individual are sustained. However, the exercise and preservation of these freedoms and rights require a respect for the rights of all in the community to enjoy them to the same extent. It is clear that in a community of learning, willful disruption of the educational process, destruction of property, and interference with the orderly process of the University or with the rights of other members of the University cannot be tolerated. Students enrolling in the University assume an obligation to conduct themselves in a manner compatible with the University's function as an educational institution. To fulfill its functions of imparting and gaining knowledge, the University



retains the power to maintain order within the University and to exclude those who are disruptive of the educational process.

2. POLICY AND PROVISIONS ON ACADEMIC ETHICS

The University has a responsibility to uphold and promote quality scholarship and to ensure that its students understand what academic integrity is. This section outlines the University's policy on dishonest academic performance by its students. Such offences carry penalties. Students should read carefully the Internal Regulations on Academic Ethics and Students' Discipline, and are encouraged to ask Faculty for help and guidance on honest academic practice, particularly in using source material from the Internet. In this way, they can avoid any unintentional dishonesty.

2.1. ORIGINALITY

For the purposes of this Policy on Academic Ethics 'original' work is work that is genuinely produced specifically for the particular assessment task by the student whose name is attached to it. Any use of the ideas or scholarship of others is acknowledged. 'Work' includes not only written material but also oral, audio, visual or other material submitted for assessment.

2.2. ACADEMIC DISHONESTY

Academic dishonesty is determined by the extent and the level of intent. In assessing the extent or scale of the dishonesty the instructor will evaluate how much of the work is the student's own after all unacknowledged source material has been removed. In no case can work that is plagiarized be taken into account in determining a grade. Intent to deceive is the single most significant aspect of academic dishonesty. Repeated instances of deception will incur heavy penalties for the student and the violation will be officially and permanently recorded in the student's record.

2.3. PLAGIARISM

Plagiarism is representing the work of somebody else as one's own. It includes the following:

i. submission of another student's work as one's own;

ii. paraphrasing or summarizing without acknowledgement of source material;

iii. direct quoting or word copying of all or part of a work, ideas, or

scholarship of another without identification or acknowledgement or reference;

iv. submitting as one's own work purchased, borrowed or stolen research, papers, or projects.

2.4. CHEATING

Cheating is giving or receiving unauthorized help for unfair advantage before, during, or after examinations, tests, presentations or other assessments, such as:

i. collaboration beforehand if it is specifically forbidden by the instructor

ii. verbal collaboration during the examination, unless specifically allowed by the instructor;

iii. the use of notes, books, or other written aids during the examination,



unless specifically allowed by the instructor;

iv. the use of electronic devices and mobile telephony to store, transmit or photograph information to or from an external source;

v. the use of codes or signals to communicate with other students in the examination room;

vi. looking upon another student's papers and / or allowing another student to look upon one's own papers during the examination period;

vii. passing on any examination information to students who have not yet taken the examination;

viii. falsifying exam identification by arranging with another student to take an examination in their place or in one's own place;

ix. pretending to take the exam but not submitting the paper, and later claiming that the instructor lost it.

2.5. COLLUSION

Collusion is false representation by groups of students who knowingly assist each other in order to achieve an unfair assessment advantage. It involves:

i. representation of the work of several persons as the work of a single student with both parties knowingly involved in the arrangement;

ii. representing the work of one student as the work of a group of students with both parties knowingly involved in the arrangement;

iii. willing distribution of multiple copies of one's assignments, papers, projects to other students for submission after re-labeling the paper as their own original work.

2.6. FABRICATION

Fabrication is the false representation of research data or 'performance' material as original, authentic work for submission for assessment. Examples are:

i. invention of data;

ii. willfully omitting some data to falsely obtain desired results

2.7. PENALTIES AND PROCEDURES

A faculty member, after evaluating the extent of the dishonesty and the level of intent and proving academic dishonesty, may use one or a combination of the following penalties and procedures:

i. requiring rewriting of a paper containing some plagiarized material;

ii. lowering of a paper or project grade;

iii. giving a failing grade on a paper;

iv. lowering a course grade;

v. giving a failing grade in a course;

vi. referring the case to the Senate for further action that may include academic suspension or expulsion.

Instructors are expected to report in writing to the Registrar's Office (through their Chairperson of Department) all the penalties they impose, with a brief description of the incident, with copies sent to the Dean of the relevant School and the Rector. Should an



instructor announce a failing grade in the course because of academic dishonesty, the student under penalty shall not be permitted to withdraw from the course.

APPEALS PROCEDURE:

In the case where a student believes that the grade received in the Final Exam is different from what was expected, he/she must exhaust all possibilities of resolving the problem with the pertinent instructor first. If this does not lead to a resolution, the student may appeal against the Final Exam grade by filing a petition with the Office of the Registrar (Petition Fee \in 34).

The Registrar will forward a copy of the petition to the pertinent Chairperson of Department, who will first ascertain that no error was made by the instructor, and if so will assign an anonymous re-evaluation of the final examination/project to another instructor. In the case of major discrepancy between the instructor's evaluation and the re-evaluation that will require change of grade, the average of the two evaluations will be assigned as the final grade to the final examination/project. Changes of grades resulting from an appeal require the endorsement of the Dean of School.

For a petition to be reviewed, a student must appeal within four (4) weeks from the date the results are announced.