### COURSE OUTLINE TECHNOLOGY APPLICATIONS IN BASKETBALL

### 1. GENERAL

SCHOOL	PHYSICAL EDUCATION, SPORT SCIENCE AND OCCUPATIONAL THERAPY			
DEPARTMENT	PHYSICAL EDUCATION AND SPORT SCIENCE			
LEVEL OF STUDIES	ISCED level 6 – Bachelor's or equivalent level			
COURSE CODE	C073 <b>SEMESTER</b> 7 <sup>th</sup> & 8 <sup>th</sup>			
COURSE TITLE	TECHNOLOGY APPLICATIONS IN BASKETBALL			
<b>TEACHING ACTIVITIES</b> If the ECTS Credits are distributed in distinct parts of the course e.g. lectures, labs etc. If the ECTS Credits are awarded to the whole course, then please indicate the teaching hours per week and the corresponding ECTS Credits.			TEACHING HOURS PER WEEK	ECTS CREDITS
			2	3
Please, add lines if necessary. Teaching methods and organization of				
the course are described in section 4.	<b>F</b>			
COURSE TYPE Background, General Knowledge, Scientific Area, Skill Development	Scientific Area, Skill Development			
PREREQUISITES:	NO			
<b>TEACHING &amp; EXAMINATION</b>	GREEK			
LANGUAGE:	ENGLISH FOR ERASMUS STUDENTS			
COURSE OFFERED TO ERASMUS	YES			
STUDENTS:				
COURSE URL:				

### 2. LEARNING OUTCOMES

#### Learning Outcomes

Please describe the learning outcomes of the course: Knowledge, skills and abilities acquired after the successful completion of the course.

Upon successful completion of the course, participants will be able to:

• recognize and explain the importance of technology applications in basketball and incorporate appropriate technological solutions in the coaching process.

- use information management, communication, and collaboration tools to support coaching activities.
- draw planned and organized training sessions using specialized applications and tools to optimize training.
- draw up plans for match observation and analysis of opponents using modern technology tools.
- analyze match data and qualitative characteristics, using statistical analysis applications for decision-making.
- become familiar with programs that analyze and assess players' technical skills,

adapting training to their needs.

- become familiar with the use of programs and tools to evaluate tactics and strategies, identifying improvements in team play.
- know and apply video analysis and digital content production software for the efficient recording, editing, and evaluation of matches and training.
- become familiar with fitness monitoring and performance analysis programs using specialized technologies.
- become familiar with innovative technologies, such as artificial intelligence, virtual and augmented reality, to improve the training process.
- apply what they have learned to real-life scenarios by designing training modules and match observation.

### **General Skills**

Name the desirable general skills upon successful completion of the module

Search, analysis and synthesis of data and information, ICT Use Adaptation to new situations Decision making Autonomous work Teamwork Working in an international environment Working in an interdisciplinary environment Production of new research ideas Project design and management Equity and Inclusion Respect for the natural environment Sustainability Demonstration of social, professional and moral responsibility and sensitivity to gender issues Critical thinking Promoting free, creative and inductive reasoning

Search, analysis and synthesis of data and information

Adaptation to new situations Decision making Autonomous work Teamwork Production of new research ideas Project design and management Critical thinking

### 3. COURSE CONTENT

- 1. Introduction to Technology Applications in Basketball and their integration into the coaching process.
- 2. Information Management and Communication and Connection Tools in Basketball.
- 3. Applications and tools for organization and design of training in Basketball.
- 4. Design and organization of game observation and intelligence in Basketball.
- 5. Applications and tools of statistical analysis of data and qualitative/quantitative characteristics in basketball.
- 6. Programs for analysis and evaluation of technical basketball skills.
- 7. Programs for the analysis and evaluation of tactics and strategy in basketball.
- 8. Video analysis programs and applications in basketball.
- 9. Programs and applications of digital content production and editing in basketball.

- 10. Programs and technologies for fitness, monitoring, and performance analysis in basketball.
- 11. Programs and applications of artificial intelligence and virtual and augmented reality technologies in basketball.
- 12. Summary of lessons learned and application to real-life scenarios. Design of training and match observation. Assignment of final assignments.
- 13. Presentation of assignments with topics from the semester's syllabus and using new technologies in Basketball.

TEACHING METHOD	The delivery of the course is face-to-face and combines			
Face to face, Distance learning, etc.	theory with practical application. During the course			
	delivery, visual aids such as digital slide shows and			
	instructional videos are used to understand the key			
	concepts of technology applications in basketball			
	Applications programs and tools of inpovative			
	technologies in haskethall are also used. During the			
	rectingles in basketball are also used. During the			
	practical application, participants actively participate in			
	practical exercises, applying what is taught, and tools			
	are used to analyze and evaluate their performance.			
	Students, deliver a written assignment and participate			
	in practical application of the acquired knowledge.			
USE OF INFORMATION &	Use of ICT in teaching and communication with			
	students			
(ICT)	- digital slides			
Education, in Communication with students	- tools and applications in n	ew technologies in		
	basketball			
	- video			
	- MsTeams/ e-class, webma	il/google apps		
TEACHING ORGANIZATION	- MsTeams/ e-class, webma Activity	il/google apps Workload/semester		
TEACHING ORGANIZATION The ways and methods of teaching are	- MsTeams/ e-class, webma Activity Lectures	il/google apps Workload/semester 26		
TEACHING ORGANIZATION The ways and methods of teaching are described in detail. Lectures Seminars, Laboratory Exercise, Field	- MsTeams/ e-class, webma Activity Lectures Assignments	il/google apps Workload/semester 26 25		
<b>TEACHING ORGANIZATION</b> The ways and methods of teaching are described in detail. Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis,	- MsTeams/ e-class, webma Activity Lectures Assignments Study and analysis of	il/google apps Workload/semester 26 25 21		
<b>TEACHING ORGANIZATION</b> The ways and methods of teaching are described in detail. Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical	- MsTeams/ e-class, webma Activity Lectures Assignments Study and analysis of literature	il/google apps Workload/semester 26 25 21		
TEACHING ORGANIZATION The ways and methods of teaching are described in detail. Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits Study (creation project creation	- MsTeams/ e-class, webma Activity Lectures Assignments Study and analysis of literature Final Exams	il/google apps Workload/semester 26 25 21 3		
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TEACHING ORGANIZATION         The ways and methods of teaching are described in detail.         Lectures, Seminars, Laboratory Exercise, Field         Exercise, Bibliographic research & analysis,         Tutoring, Internship (Placement), Clinical         Exercise, Art Workshop, Interactive learning,         Study visits, Study / creation, project, creation,         project. Etc.         The supervised and unsupervised workload per         activity is indicated here, so that total         workload per semester complies to ECTS         standards.         Studpert Evaluation process         Assessment Language, Assessment Methods,	- MsTeams/ e-class, webma           Activity           Lectures         Assignments           Assignments         Study and analysis of           literature         Final Exams           Total         Student assessment is form           Active student participation         Interview of the student the studen	il/google apps Workload/semester 26 25 21 3 		
TEACHING ORGANIZATION         The ways and methods of teaching are         described in detail.         Lectures, Seminars, Laboratory Exercise, Field         Exercise, Bibliographic research & analysis,         Tutoring, Internship (Placement), Clinical         Exercise, Art Workshop, Interactive learning,         Study visits, Study / creation, project, creation,         project. Etc.         The supervised and unsupervised workload per         activity is indicated here, so that total         workload per semester complies to ECTS         standards.         STUDENT EVALUATION         Description of the evaluation process         Assessment Language, Assessment Methods,         Formative or Concluding, Multiple Choice Test,	- MsTeams/ e-class, webma  Activity  Lectures  Assignments  Study and analysis of  literature  Final Exams  Total  Student assessment is form  Active student participation  Interim assessments throug	il/google apps Workload/semester 26 25 21 3 75 ative: in the course (10%). h short appropriate tool. in the course		

### 4. LEARNING & TEACHING METHODS - EVALUATION

Assignment, Essay / Report, Oral Exam, Presentation in audience, Laboratory	(4x5%=20%).
Report,Clinical examination of a patient,Artistic interpretation, Other/Others	Interim assignment (10%)
	Final paper written by students from a range of pre-
Please indicate all relevant information about the course assessment and how students are informed	selected topics relevant to the course content (10%).
	Written final examination with multiple-choice
	questions (Concluding) (50%).
	Students will be informed about the assessment
	process in the first lecture.

### 5. SUGGESTED BIBLIOGRAPHY

- 1. Jenny, S.E., Krause, J. M., & Armstrong, T. (2021). Technology for physical educators, health educators, and coaches: enhancing instruction, assessment, management, professional development, and advocacy. Human Kinetics.
- 2. Bradley Steffens (2020). The Science and Technology of Basketball. ReferencePoint Press.
- 3. International Society of Performance Analysis of Sport (ISPAS ). [On-line] Available: <u>http://www.ispas.org/</u>
- 4. Μόνσεν Μ., Επιμέλεια: Αντωνίου Π. (2009). Η Χρήση της Τεχνολογίας στη Φυσική Αγωγή. Εκδόσεις Γκιούρδας. Αθήνα.
- 5. Σύνδεσμος Ελλήνων προπονητών καλαθοσφαίρισης (ΣΕΠΚ) <u>http://www.sepk.gr/</u>
- 6. Σφίγγος Νικόλαος, (2019). Ανάπτυξη, διάδραση χρηστών και αξιολόγηση του
- 7. συστήματος LeVAnDa: Ευρετηριοποίηση τμημάτων οπτικοακουστικού υλικού για τη φυσική αγωγή και τον αθλητισμό. Διδακτορική Διατριβή, ΤΕΦΑΑ ΔΠΘ
- Τσαμουρτζής, Ε. (2002). Προγράμματα βιντεοανάλυσης στην προπονητική. Εταιρεία Αξιολόγησης και Διαχείρισης περιουσίας Δημοκρίτειου Πανεπιστημίου Θράκης. Τσαμουρτζής, Ε., Σίσκος, Α. (2001). Ο ηλεκτρονικός υπολογιστής στην υπηρεσία τουπροπονητή καλαθοσφαίρισης. Basketball Coach, 6: 26-29.
- 9. Selected articles from relevant journals.
- 10. Selected articles from pages of related software and applications using technologies in basketball.

# ANNEX OF THE COURSE OUTLINE

## Alternative ways of examining a course in emergency situations

Teacher (full name):	Panagiotis Foteinakis
Contact details:	pfotinak@phyed.duth.gr
Supervisors:	YES
Evaluation methods:	Written assignment (50%). Written remote examination (50%)
Implementation Instructions:	Homework must be submitted via eclass on a specified date.