



1. **MODULE TITLE:** Information & Communication Technology for Sport and Exercise
 2. **MODULE CODE:** M6
 3. **MAIN LECTURER:** Papastergiou Marina e-mail: mpapas@pe.uth.gr
 4. **OTHER LECTURERS:** -
 5. **TEACHING MODE:** Twelve three-hour class sessions
 6. **MODULE ID:** Module of the 2nd semester

Module keywords: Information and Communication Technologies (ICT), sport, exercise, health

7. AIM OF THE MODULE:

Information and Communication Technologies (ICT) are increasingly used in the world of sport and exercise. Students will become familiar with applications of ICT that can facilitate athletic training, can offer alternatives to conventional exercise programs, and can potentially promote an active and healthy lifestyle. Furthermore, students will engage in practical computer laboratory work towards designing and developing ICT artefacts. They will also have the opportunity to read and discuss recent research in the area.

8. LEARNING OUTCOMES:

At the end of this module students should:

- be aware of various applications of ICT in sport and exercise
- be familiar with the various strands of research in the area of ICT in sport and exercise
- be on their way to develop sport- and exercise- related digital artefacts, such as websites and multimedia digital stories

9. TEACHING METHOD:

Presentations, discussions, computer laboratory practice

10. TIMETABLE & PLANNING:

Session	Method	Topic
1	Presentation and discussion	Physically interactive video games ('exergames')
2	Presentation and discussion	Digital games for health promotion
3	Presentation and discussion	Multimedia environments for the acquisition of sport-related knowledge and skills
4	Presentation and discussion	Web-based interventions for health and exercise promotion
5	Computer laboratory practice	Website creation 1
6	Computer laboratory practice	Website creation 2
7	Computer laboratory practice	Multimedia blog creation
8	Presentation and discussion	Mobile applications for sport, exercise and health

9	Computer laboratory practice	Creation of simple mobile applications
10	Presentation and discussion	Digital storytelling for sport, exercise and health
11	Computer laboratory practice	Digital story creation 1
12	Computer laboratory practice	Digital story creation 2

11. STUDENT EVALUATION:

- Presentation of a research paper (15%)
- Presentation of a concrete ICT application (15%)
- ICT project (70%)

Presentation of a research paper

Each student will prepare a presentation (10 – 15 minutes) of a research paper assigned to him/her by the instructor, and will deliver to her a short commentary on the paper.

Presentation of a concrete ICT application

Each student will prepare a presentation (10 – 15 minutes) of a concrete sport- or exercise- related ICT application (e.g. a mobile application) assigned to him/her by the instructor, and will deliver to her a short report on the application.

ICT project

Students should develop in pairs and deliver to the instructor an ICT project (e.g. a sport- or exercise- related website, a digital story on some sport- or exercise-related issue) following the principles and procedures presented during the course.

12. SUGGESTED MATERIAL

Books

1. Dabnichki, P., & Baca, A. (Eds.) (2008). *Computers in sport*. WIT Press.
2. Gobel, S., Mueller, W., Urban, B., & Wiemeyer, J. (2012). *E-Learning and games for training, education, health and sports*. Springer.
3. Lewis Brooks, A., Brahnam, S., & Jain, L. (Eds.) (2014). *Technologies of inclusive well-being: Serious games, alternative realities, and play therapy* (Studies in Computational Intelligence). Springer.
4. Mohnsen, B. (2012). *Using Technology in Physical Education* (8th edition). Bonnie's Fitware.
5. Pope, N., Forster, J., & Kuhn, K. (2011). *Digital sport for performance enhancement and competitive evolution*. IGI Global.

Journals

1. International Journal of Computer Science in Sport (2002-today).
2. Health Promotion Practice (2000-today).
3. Health Education Research (1996-today).