SYLLABUS

1. Course title:

Biomechanics II

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

Completed the I (first) semester, with min. 25% of the student's prepayment points

7. Class restrictions:

No restriction

8. Duration / semester:

15 IV

9. Weekly contact hours:

9.1. Lectures:	2
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	2

10. Faculty:

Faculty of Physical Education and Sports

11. Department/study program:

A regular study

12. Lecturer:

Dr. sc. Tarik Huremović, docent

13. Lecturer's e-mail:

tarik.huremovic@untz.ba

14. Web site:

www.ftos.untz.ba

15. Course aims:

The aim of Biomehanika II is:

- Introducing students about the moving structures of athletes through the mechanics of mechanics
- Explanation of the sporting structures of sport in some sports
- Adopting knowledge of legalities in the performance of elements of sports technique
- Achieving a high level of theoretical and practical knowledge

16. Learning outcomes:

After completing the semester students who regularly attended the Biomechanics I course:
• students will master the theoretical knowledge and skills needed in the implementation of Biomechanics I program contents in the educational process (physical and health education) at all levels,
• Through teaching materials will get information on the fundamental legitimacy of movement and movement
• Intellectual skills and communication skills will be at a higher level,
• be trained to use available literature and solve various problems

17. Course content:

Through the theoretical part of the lecture will be presented:
1. The significance of biomechanics of sports movements,
2.Biomechanical measurement method (in vivo and non-invasive measurements),
3. Measurement in biomechanics,
4. Prepare, measurement protocol, data processing,
5. Stereophotogrammetry measurement of 3D analysis (Ariel-APAS, ELITE, SIMI),
6. Theoretical-practical application of the 2D and 3D analysis system,
7. Biomechanical analysis of the jump,
8. Biomechanical analysis of the discipline (javelin trow, shot path),
9. Provide technical and technological ideas for solving mistakes, designing kinematic models, and displaying data through quinlatures, animation.

18. Learning methods:

The learning styles represented in the lessons include: the method of oral presentation, conversation, illustration and demonstration, and the use of multimedia resources, active learning techniques and discussion.

19. Assessment methods:

The student's obligation is to attend regular lectures and auditorials throughout the semester. The lecturer will monitor the presence during the semester. In the sixth week will be the first check, ie the colloquium (theoretical). This colloquium encompasses the material that has been processed so far. The test consists of a number of questions and their number and scoring depend on the weight of the task scheduled for the interviews. The student can earn up to 16 points in this exam. In the twelfth week a second intermediate is envisaged, covering the building material from the first to the second coin. This mid-point is scored by the same principle as the first. The final exam consists of a written part, and all students are entitled to attend the final exam regardless of the number of points earned on the interviews. The maximum number of points that the student can win in the pre-requisites is 60. As much as the student earns points on the pre-requisites, They add up to other points but do not represent an obstacle for a student to complete their final exam. If a student fails to score enough points that fail to qualify for a passing grade, the student must re-enter the exam in order to gain more points and pass the exam.

Grading ratings are as follows:

Points	Score
0-53	(5)
54-63	(6)
64-73	(7)
74- 83	(8)
84- 93	(9)
93-100	(10)

20. Assessment components:

The score based on the total number of points is determined according to the following scale:

Presence in lectures	max 10
Presence on exercises	max 10
Student activity	(theory 4, practically 6) 10
Colloquium I	max 15
Colloquium II	max 15
Final exam	max 40

21. Required reading list:

Biberović A.Biomehanika, „OFF-SET“ -Tuzla, Tuzla 2007.
Hay, J.G. (1994). The Biomechanics of Sports Techniques. Englewood Cliffs, NJ: Prentice-Hall.
Tomažin, K. & A. Dolenec, (2004). Predstavitev nove merilne tehnologije Inštituta za šport.

22. Web sources:

http://www.isbs.org/
http://www.humankinetics.com/excerpts/excerpts/apply-biomechanics-to-improve-technique
http://www.topendsports.com/biomechanics/

23. Applicable starting from the academic year:

2015/16

24. Adopted in the Faculty/Academy session:

(max. 10 char.)