



Year : 2018/19

## **60857 - Body composition and health**

### **Syllabus Information**

<b>Academic Year:</b>	2018/19
<b>Subject:</b>	60857 - Body composition and health
<b>Faculty / School:</b>	229 -
<b>Degree:</b>	549 - Master's in Evaluation and Physical Training for Health
<b>ECTS:</b>	6.0
<b>Year:</b>	1
<b>Semester:</b>	First semester
<b>Subject Type:</b>	Compulsory
<b>Module:</b>	---

### **General information**

#### **Aims of the course**

#### **Context and importance of this course in the degree**

#### **Recommendations to take this course**

#### **Learning goals**

#### **Competences**

#### **Learning goals**

#### **Importance of learning goals**

#### **Assessment (1st and 2nd call)**

#### **Assessment tasks (description of tasks, marking system and assessment criteria)**

The students must demonstrate that they have achieved the intended learning outcomes

by the following evaluation activities:

1: The student in this subject will be evaluated by a global test.

The evaluation is done according to the agreement of the 22 December 2010 by which the regulation of learning

assessment standards of the University of Zaragoza is approved.

#### **4.1. Evaluation activities**

The students must demonstrate that they have achieved the intended learning outcomes through an overall assessment test consisting of a theoretical and practical assignment and a written test.

##### *Global Test:*

##### *Evaluation Test 1: Test.*

The assessment of the extent of the knowledge acquisition and understanding of the conceptual and practical knowledge will be performed through a written exam. It will consist of a double test:

1) Based on multiple choice questions, which will provide 5 possible answers, having the

Students to choose the one that they consider correct. 1/3 points are deducted with each failure (50% exam mark).

2) It also may include short questions, problem solving, interpretation of graphs, design protocols or anything related to practical sessions (50% of the note contents exam).

The final grade will be obtained as the sum of the note of Parts 1 and 2, granting a rating of 1 to 10.

The objective test will contribute 85% to the final grade.

##### *Evaluation Test 2: Work*

Students will have to carry out the review and common discussion of 3 scientific articles previously agreed with the teacher and all related to the main topic or study population of the final masterwork that the student has chosen.

The oral presentation of this work will be required to pass the course. It is scored from 0 to 10 and will contribute 15% to the final grade.

##### *Summary:*

To pass the course it is necessary to obtain a score greater than or equal to 5 in the evaluation of the examination and work. The weighted overall rating will be computed as follows: theoretical examination 85% and 15% for work.

## **Tests for the second call for each academic year.**

According to Article 10 of Title II of Regulation Evaluation cited above, the second evaluation will be undertaken using a global test in the period established for this purpose by the Governing Council in the academic calendar.

It will consist of a similar work and test described above:

1) based on multiple choice questions, which will be provided with 5 possible answers, the student must choose the one that considers correct. 1/3 will be deducted with

each failure (50% of the exam).

2) which may include short questions, problem solving, interpreting graphs, protocol design and everything related to the contents worked in the practical sessions (50% of the exam).

The final grade will be obtained as the sum of the grades of Parts 1 and 2 with a rating from 1 to 10.

### *Evaluation Test 2: Work*

Students will have to carry out the review and common discussion of 3 scientific articles previously agreed with the teacher and all related to the main topic or study population of the final masterwork that the student has chosen.

The oral presentation of this work will be required to pass the course. It is scored from 0 to 10 and will contribute 15% to the final grade.

### *Summary:*

To pass the course it is necessary to obtain a score greater than or equal to 5 in the evaluation of the examination and work. The weighted overall rating will be computed as follows: theoretical examination 85% and 15% for work.

## **Methodology, learning tasks, syllabus and resources**

### **Methodological overview**

The methodology followed in this course is oriented towards achievement of the learning objectives. It is based on an initial acquisition of theoretical knowledge and its application on practical tasks. It is intended that students are able to apply in practice those theoretical and practical concepts that they have acquired during the course.

A wide range of teaching and learning tasks are implemented, such as theory sessions, practice sessions, practical problems, case studies, etc. in order to bring students to situations that they would confront in a field job of physical activity and health.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

## Learning tasks

The course includes the following learning tasks:

- **Theory sessions** (18 hours). Theoretical basic knowledge of the course, which will focus on the topics covered in the syllabus.
- **Laboratory practice sessions** (16 hours). Sessions will take place in different school facilities, biomedical laboratory, gym, pavilion, outside groups, reduced X students (depending on the group). They are interspersed with the theory sessions. In practice sessions, students will carry out the following activities:
  - o \* assessment of physical condition and functional design of exercises and specific training plans for improving a quality related to physical health necessary in a specific population.
- **Field practice sessions** (26 TBD hours). Sessions will take place in different faculty facilities; biomedical laboratory, gym, pavilion, outdoor. They interspersed with the theory sessions. In practice sessions, students will carry out the following activities:
  - o \* assessment of the physical condition and functional design exercises and specific training plans for improving a quality related to physical health necessary in a specific population.
  - o Problem solving and case studies.

## Syllabus

The course will address the following topics:

### Section 1. History and state of the art

- Topic 1 History of body composition and most relevant findings
- Topic 2 Study of body composition

### Section 2. Methodology of body composition assessment

- Topic 3 Hydrostatic weigh and air displacement plethysmography
- Topic 4 Dual energy X-ray absorptiometry
- Topic 5 Bio impedance
- Topic 6 Peripheral computed tomography
- Topic 7 Anthropometry on science. Methods: ISAK
- Topic 8 Adiposity and fat distribution
- Topic 9 Lean and bone mass evaluation

### Section 3. Biological and behavioural influence on body composition

- Topic 10 Genetic influence
- Topic 11 Age
- Topic 12 Gender and ethnic
- Topic 13 Hormons
- Topic 14 Exercise

### Section 4. Body composition in specific population groups

- Topic 15 Children
- Topic 16 Elderly
- Topic 17 Pregnant women
- Topic 18 Associated morbidity and mortality
- Topic 19 Osteoporosis
- Topic 20 Metabolic pathologies: obesity and diabetes

## Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class.

## Bibliography and recommended resources

**Título** Human body composition / Steven B. Heymsfield ... [et al.], editors

**Publicación** Champaign, Ill. : Human Kinetics, cop. 2005

Ubicación	Signatura	Tipo de préstamo	Estado	Notas
-----------	-----------	------------------	--------	-------

[Fac.Cc.Salud\(Z\)-DEPT y Enfermería](#) [Hum](#)

CONSULTAR DEPT

USO INTERNO

**Edición** 2nd ed.

**Descripción física** XII, 523 p. : il. ; 29 cm

**Bibliografía** Bibliogr.: 415-502 p.

**Autor secundario** [Heymsfield, Steven B., ed. lit.](#)

**ISBN** 0736046550

<https://www.ncbi.nlm.nih.gov/pubmed>

<http://biblioteca.unizar.es>