



Information about the subject

Degree: Bachelor of Sciences of Physical Activity and Sport

Faculty: Faculty of Physical Activity and Sport Sciences

Code: 280403 **Name:** Assessment of Biological Condition

Credits: 6,00 **ECTS Year:** 4 **Semester:** 1

Module: 6-9) Professional itinerary module

Subject Matter: Sports training **Type:** Compulsory

Field of knowledge: Sports training

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught:

Lecturer/-s:



Module organization

6-9) Professional itinerary module

| Subject Matter | ECTS | Subject | ECTS | Year/semester |
|--|-------|---|------|---------------|
| Education of the physical activity and the sport | 12,00 | Design, assessment and intervention of educational programs | 6,00 | 4/1 |
| | | Pedagogy in Educational Values in Physical and Sports Activity | 6,00 | 4/1 |
| Sports training | 12,00 | Assessment of Biological Condition | 6,00 | 4/1 |
| | | Planning and Methodology of Sports Training | 6,00 | 4/1 |
| Physical Activity and Quality of Life | 12,00 | Prescription and Assessment of Physical Exercise in Different Populations | 6,00 | 4/1 |
| | | Promotion and Programs of Healthy Lifestyles | 6,00 | 4/1 |
| Management and sportive/sport recreation. | 12,00 | Sports Facilities | 6,00 | 4/1 |
| | | Structure and Legislation in Sports Management | 6,00 | 4/1 |



Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Acquire basic knowledge.
- R2 Learning to assess the biological components of the athlete.
- R3 Learning to work in groups.
- R4 Apply knowledge ergogénesis depending on the sport.
- R5 Apply the lessons learned.
- R6 Apply variety of appliances, tools, methodologies and protocols related to the assessment of physical condition.
- R7 Learn to evaluate and assess their theoretical and practical work.



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

| GENERAL | | Weighting | | | |
|----------|--|-----------|---|---|---|
| | | 1 | 2 | 3 | 4 |
| CG2 | Ability to apply information technology and communication (ICT) | | X | | |
| CG3 | Develop skills to solve problems through decision-making | | | | X |
| CG4 | Transmit any information regarding the contents of body expression both in writing and orally | | X | | |
| CG7 | Be capable of critical reasoning using the knowledge gained | | | | X |
| CG10 | Develop skills to adapt to new situations and autonomous learning | | X | | |
| CG13 | Being able to apply theoretical knowledge in practice | | | | X |
| CG14 | Use Internet well as communication and as a source of information | | X | | |
| CG19 | Developing habits aiming at obtaining excellence and quality at work | | X | | |
| SPECIFIC | | Weighting | | | |
| | | 1 | 2 | 3 | 4 |
| CE5 | Know and understand the effects of the practice of body language and its manifestations in the personal development and health improvement | | X | | |
| CE12 | Plan, develop and control the theatrical process at different levels | | | | X |
| CE13 | Applying physiological, biomechanical, behavioural and social principles to different fields of physical activity and sports | | | X | |
| CE19 | Learn to apply the techniques of information and communication within the body expression | X | | | |



Assessment system for the acquisition of competencies and grading system

| Assessed learning outcomes | Granted percentage | Assessment method |
|----------------------------|--------------------|--------------------------------------|
| R1, R2, R4, R5 | 45,00% | Written/oral and/or practical tests. |
| R7 | 10,00% | Participation and self-assessment. |
| R1, R2, R3, R4, R5, R6 | 45,00% | Completion of a project. |

Observations

To pass the subject or in the 1^a enrolment be essential:

- To pass the course the student must obtain at least 50% of the total mark for each of the sections of assessment (excluding self-assessment).
- Failure to pass these criteria will be his second official evaluation in conserving call other scores for the competencies exceeded.
- Students who do not meet the requirements to pass the course but the overall rating is equal to or greater than 5 pts. will be rated at 4.5 pts.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Exhibition of contents by the teacher.
- M2 Dynamics and group activities.
- M3 Resolution of problems and cases.



- M4 Laboratory practices.
- M5 Discussion in small groups.
- M6 Practical lesson.



IN-CLASS LEARNING ACTIVITIES

| | LEARNING OUTCOMES | HOURS | ECTS |
|--|------------------------|--------------|-------------|
| PRACTICAL /SEMINAR CLASS: Dynamics and group activities. Resolution of problems and cases. Laboratory practices. Data search in a computer room, library... Meaningful construction of knowledge through the interaction and activity of the student M2, M3, M5, M6 | R1, R2, R3, R4, R5, R6 | 29,00 | 1,16 |
| TUTORY: Learning supervision, evolution. Discussion in small groups. Resolution of problems and cases. Presentation of results before the teacher. Presentation of schemes and indexes of the proposed works. M5 | R1, R4, R5 | 2,00 | 0,08 |
| EVALUATION: Set of oral and / or written tests used in the evaluation of the student, including the oral presentation of the final project. M2, M3 | R1, R4, R5, R6, R7 | 4,00 | 0,16 |
| THEORETICAL CLASS: Presentation of content by the teacher. Competency analysis. Demonstration of skills, abilities and knowledge in the classroom. M1, M2, M5 | R1, R2 | 25,00 | 1,00 |
| TOTAL | | 60,00 | 2,40 |



LEARNING ACTIVITIES OF AUTONOMOUS WORK

| | LEARNING OUTCOMES | HOURS | ECTS |
|---|-------------------|--------------|-------------|
| GROUP WORK: Problem solving. Preparation of exercises, works, memories, to exhibit or deliver in classes and / or in tutoring. M2, M3 | R2, R3, R4, R5 | 35,00 | 1,40 |
| AUTONOMOUS WORK: Study, Individual preparation of exercises, works, memories, to exhibit or deliver in classes and / or in tutoring. Platform activities or other virtual spaces. M3 | R2, R3, R4, R5 | 55,00 | 2,20 |
| TOTAL | | 90,00 | 3,60 |



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

| Content block | Contents |
|--|--|
| Block. 1. - Functional assessment. | <p>Item 1. Functional assessment: objectives and methodological bases.</p> <p>Item 2. Functional assessment of aerobic metabolism.</p> <ul style="list-style-type: none">·I stress tests: Laboratory tests.·direct and indirect methods of estimating the maximum aerobic power.·direct and indirect methods of estimation of the transition zone anaerobic and aerobic·Stress tests II: field trials.·direct and indirect methods of estimating the maximum aerobic power.·direct and indirect methods of estimation of the transition zone anaerobic and aerobic <p>Item 3. Functional assessment of anaerobic metabolism: anaerobic power and endurance.</p> <p>Item 4. Functional assessment of flexibility.</p> <p>Item 5. Functional assessment of muscle strength.</p> <p>Item 6. Functional assessment of physical abilities.</p> |
| Block 2. - Adaptations of the organism to physical exercise. | <p>Item 7. Cardiovascular adaptations to exercise:</p> <ul style="list-style-type: none">·changes in the electrocardiogram and the cardiac cycle.·changes in heart rate, stroke volume and cardiac output.·variations of blood pressure and blood flow. <p>Item 8. Respiratory adaptations to exercise.</p> <p>Item 9. Hematologic adaptations to exercise.</p> |



Block 3. practices

Item 10. Rating and functional tests:

- Electrocardiogram.
- spirometry.
- Monitoring of heart rate and heart rate variability
- Estimation of maximal aerobic power by submaximal tests.
- Estimation of maximal aerobic power by maximal tests.
- Test estimation transition zone aerobic and anaerobic.
- Test estimation of anaerobic power.

Temporary organization of learning:

| Block of content | Number of sessions | Hours |
|--|--------------------|-------|
| Block. 1. - Functional assessment. | 12,00 | 24,00 |
| Block 2. - Adaptations of the organism to physical exercise. | 8,00 | 16,00 |
| Block 3. practices | 10,00 | 20,00 |



References

BASIC BIBLIOGRAPHY:

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Course guide

Year 2024/2025

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Barcelona.

