UNIVERSITY OF COIMBRA

FACULTY OF SPORT SCIENCES AND PHYSICAL EDUCATION

Information Package:

DEGREE OF SPORT SCIENCES
Faculty of Sport Sciences and Physical Education

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Liliana Moreira
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<th>CODIGOS/CODE</th>
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Name of Curricular Unit
Kinesiology I

ECTS 4,5

Objectives
Develop students’ interest and understanding about different kinesiology (anatomic and movement) aspects of the trunk and upper limbs inherent in the physical activity and sports.

At the end of the curricular unit, students are expected to be able to:

- Identify the object of study of kinesiology and anatomy of movement in physical activity and sports practice.

- Classify the types of bones, joints and muscles

- Point out the main articular/segmental movements and plans of movements

- Know the characteristics of the vertebrae, bonds and muscles of the vertebral column

- Know the vertebral column movements (cervical, dorsal and lumbar regions), plans of movement and angular sectors

- Know the constitution of the shoulder girdle and upper limb

- Know the anatomical constitution of upper limb, bones and joints

- Know the muscles, insertions and muscle movements of the shoulder girdle

- Know the muscles, insertions and muscle movements of the upper limb

- Know the main movements, kinetic chains of upper limb (example: glenohumeral side elevation, pronosupination,...) and their development in the specific sports’ practice

- Describe the human movement in physical activity and sports’ practice

- Know the main pathologies of the vertebral column, thoracic cage, shoulder girdle and upper limb associated with sports’ practice.

Program
Introduction to Kinesiology (introductory concepts, anatomical references, bone, joint, muscle: general concepts).

The vertebral column (general constitution, the vertebra: general, specific and individual characteristics). Vertebral column as a whole and evolution of the rachis. Joints of the vertebral column (classification, articular surfaces and bonds).

Anatomical constitution of the thoracic cage.

Muscles of the posterior region of the torso (location, insertions, innervation and muscular action). Muscles of the cervical region. Functional anatomy of the vertebral column.
Bones of the upper limb (shoulder girdle, arm, forearm and hand). Joints of upper limb (classification, articular surfaces, bonds and movements). Muscles of the shoulder girdle, shoulder, arm and forearm (location, insertions, innervation and muscular action). Functional anatomy of upper limb (shoulder complex, elbow, forearm and wrist-hand).

Pathologies of the vertebral column, thoracic cage and upper limb associated with sports’ practice.

Description of movement: plans and axes of movement; General and specific terminology. Sports gesture analysis and description of plans of movement and types of movement.

Contact hours
Theoretical -22,5h
Theoretical- practical -22,5h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
In theoretical classes the syllabus contents will be presented by means of lecture method using multimedia presentations.

Theoretical and practical classes include a learning based on the observation of anatomical pieces and/or their images, as well as the kinesiological analysis of sports’ gestures. Classes include elements of descriptive and functional anatomy, as well as interpretation of the movement.

Bibliography


Texto de Apoio – Cinesiologia I e II.
**Name of Curricular Unit**
General Physiology I  
ECTS 4,5

**Objectives**
The General Physiology I curricular unit is the first contact students will have with basic notions of the functioning of the human body. This knowledge base will be fundamental for complementary curricular units such as Exercise Physiology, Exercise Biochemistry and biomechanics, among others.

**Program**

**Contact hours**
Theoretical -22,5 h  
Theoretical- practical -22,5 h

**Evaluation**
Evaluation, to choose one of two options:

3. Continuous assessment during the semester in the classes  
4. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**
Face-to-face teaching method with lectures, plus a learning component based on problem solving and work presentation.

**Bibliography**


**Name of Curricular Unit**
Sociology of Education

**ECTS 4.5**

**Objectives**

- a) Analyse the social phenomena according to the methodological principle of understanding and explaining the social issue using the social issue;

- b) Develop the relational character of scientific knowledge that is disrupted with the spontaneous representations of society;

- c) Develop the critical thinking by means of the interest for critical practice of scientific reasoning;

- d) Develop problems of research on specific educational situations;

- e) Promote interdisciplinarity by means of the practice of the relationship between social, cultural and economic dimensions;

- f) Understand the genesis of massive school in Portugal, integrating it in the globalization process of the worldwide education systems.

- g) Know the theories and analysis models of social inequalities and schooling inequalities;

- h) Analyse the school curriculum as a selective and arbitrary way of cultural regulation;

- i) Relate school culture with youth cultures and the labour market.

**Program**

Theme I – The Portuguese school and the globalization of massive school:

1. Genesis of the massive school.
3. The case of the Unified Secondary Education Course.

Theme II – Schooling and social system:

1. From the optimistic search to the disenchanted search for education: school failure and social inequalities concerning education.
2. The gender: feminine advantages in school context and masculine advantages in the employment system.
3. Ethiics: immigration, ethnocentrism and multiculturalism.

Theme 3 – Education and Culture:

1. The Curriculum as a symbolic violence.
2. Higher culture, popular culture, massive culture and schooling culture.
3. The contemporary status of the body and Physical Education.

Theme 4 – School, work and youth cultures:

1. Schooling and economical system: nonlinear relationships.
2. From school to work: the paths to adult life.
3. Youth cultures and the transition to adult life.

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5. Continuous assessment during the semester in the classes or
6. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

<table>
<thead>
<tr>
<th>Teaching methods</th>
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<td>- Theoretical classes using the lecture method and the Socratic dialogue.</td>
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<tr>
<td>- Practical classes consisting of group work and resolution of worksheets.</td>
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<tr>
<td>- Individual reading and guided discussion of texts whose reading is mandatory.</td>
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<tr>
<td>- Students may accomplish the curricular unit by means of continuous assessment or final exam.</td>
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Name of Curricular Unit
Auxology and Kinanthropometry

Objectives
[1] Understanding the ecology of human growth;

[2] Describing the lifecycle in terms of developmental biology;


Program
[1] Recognizing the anthropometric References.


[10] Distinguishing growth and maturation and understanding the difference between maturation and maturity.


Contact hours
Theoretical -22,5h

Theoretical- practical -22,5h

Evaluation
Evaluation, to choose one of two options:

7. Continuous assessment during the semester in the classes or
8. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The curricular unit will consist of a 90-minute class per week, mainly a lecture class, and it follows the auditorium class model. In addition, there will be a 90-minutes class
per week, organized for each class, in which problem solving will be enhanced. In the end, students will have access to original support texts that are elaborated by the teachers.

**Bibliography**


Name of Curricular Unit
Kinanthropology

ECTS 4.5

Objectives
Being part of the curricular context of the bachelor’s degree in Sport and Physical Education, and considering its interface with other fields in the Social Sciences and Humanities, Cinéanthropology

Sports will approach the analysis and interpretation of socio-sports phenomenon, as one of the most significant phenomena of contemporary society, in which mankind, its main vector, highlights by means of their practices, the most distinct and different ways of thinking, acting, feeling, of expressing its values and norms, its symbols and meanings and all of its dynamics that take place in time and space.

I. Promote the acquisition of specific content of socio-cultural anthropology;

II. Provide the reflection on sports phenomena in terms of the specific contents of socio-cultural anthropology;

III. Promote awareness of the transformations of sports events in terms of its causes and consequences within the social framework in which they take place;

IV. Develop the capacity of analysis and interpretation of the different elements that characterize physical and sports activities;

V. Reveal the relationship between the sports universe and that the facts that make them up;

VI. Provide theoretical elements that allow the development of studies and research in the field of socio-cultural anthropology concerning the physical-sports phenomenon.

Program

Introduction to anthropological basics:
- Anthropology in the Social Sciences
- Definition of its purpose and its objectives
- Understanding the concept of mankind
- Fields of action of General Anthropology and Cultural Anthropology
- Ethnology and Ethnography

Basics of Cultural Anthropology:
- Notion of Culture.
- Culture, society and civilization
- The nature, meaning and function of culture and civilization
- The distinctive qualities of culture
- The interrelationship of biological and cultural aspects
- The cultural values.
- Customs and practices
- Culture and personality, culture and environment
- Institutions and social structures
The culture factors:
- The individual
- The organization and social structures
- Social institutions and grouping forms
- Classes and age classes
- Lineages, clans and tribes
- Ethnic groups, ethnic communities and nations
- The technology
- Time - Ecological time and structural time

The structuring of culture:
- Notion of structure and function
- Cultural traits and complexes
- Cultural areas, cultural circles and cycles
- Centres of culture, national and marginal cultures
- Patterns of Culture

Fundamental premises of culture:
- Cultural diversity
- Cultural relativism
- Anachronism and ethnocentrism

Fundamental premises of culture:
- The cultural dynamics
- The process of enculturation
- The process of acculturation.
- Particular aspects of acculturation - a) Assimilation, b) Integration, c) Merger
- The process of destruction of culture
- Static and dynamic aspects of culture
- The internal and external mechanisms of cultural changes
- The process of cultural diffusion

The gymnastics methods, game and sports as anthropological objects of study
- Gymnastics Methods - Their history, function, objectives and characteristics
- Playful aspects of human culture
- Concept, classification, structures and characteristics of games

The gymnastics methods, game and sports as anthropological objects of study
- Sports as an object of study in cultural anthropology
- Synthetic analysis of the origin and development of sport
- Comparative analysis of structures and characteristics of the game and Sport
- Guiding principles of sports development
- Sport as a civilizing process

Interpretation of the sports phenomenon in terms of the fundamental premise of culture
- The definition and characteristics of game
- Classification, differential criteria and Game spaces
- The origin of Sport
- Sport in ancient times
- The modern sport
- The prospects of modern sport

Understanding the meaning and functions of sport
- The concept of Sport
The practical classes will be delivered as seminars presented by students (working groups), taking place from the 5th class on. The themes of their seminars will be provided according to the texts presented for that purpose in this syllabus.

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<tbody>
<tr>
<td>a) Theoretical Classes - mainly lecturing;</td>
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<td>b) Theoretical-practical classes in which students' interaction with the teacher is permitted starting from the previously suitable readings;</td>
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<td>c) Self-study;</td>
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<td>e) Attendance</td>
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Luschen, G. *The interdependence of Sport and Culture*. In, IRSS, 2. 1987.


**Name of Curricular Unit**  
Practical Studies I - Aerobics  
ECTS 1,25

**Objectives**  
This curricular unit aims at promoting interest and knowledge in an area in continuous expansion and with a large labor market.

**Program**  
- Concepts of Wellness, Fitness and Aerobics;  
- Structure of an aerobics lesson;  
- Music and Identification of stage and musical block;  
- Motor skills as the essence of an aerobics lesson, transitions;  
- Variation of intensity, verses, complexity;  
- Methods for constructing choreography.

**Contact hours**  
Theoretical- practical -30 h

**Evaluation**  
Evaluation, to choose one of two options:  
1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**  
Collective teaching sessions, with tutorial-type individual guidance and field work comprised within specific tasks performed in practical lessons.

**Bibliography**  
* Cerca, L. Metodologia da Ginástica de grupo (1999). Coleçção Fitness é Manz  
Name of Curricular Unit
Practical Studies I- Athletics
ECTS 1,25

Objectives
The subject of Athletics aims to provide students with the knowledge needed for training/teaching young athletes/school students in the different disciplines of Athletics. To do so, after completing the course, the student will be able to demonstrate the different techniques, and teaching progressions, on all different disciplines of racing, jumping and throwing events, knowing, and being able to effectively lead the process of teaching/training. Knowing the general history of the Athletics and the main assumptions of the technical regulation of competition, as well as be familiar with the equipment/materials and resources specific of Athletics are a must.

Program
Athletics history
Features from the athletic track
Running events
- Long distance and middle distance races:
  . running technique
  . training methodology
  . teaching progressions
  . technical regulation
  . equipment

- Sprint races
  . analysis of the 100m
  . running technique
  . starting blocks
  . training methodology
  . teaching progressions
  . technical regulation
  . equipment

Hurdles
  . analysis of the hurdles races
  . running technique and race rhythm
  . starting blocks
  . training methodology
  . teaching progressions
  . technical regulation
  . equipment

Jumping events
- Long Jump
  . analysis of long jump phases
the different techniques
training methodology
teaching progressions
technical regulation
equipment

Triple jump
analysis of triple jump phases
the different techniques
training methodology
teaching progressions
technical regulation
equipment

High Jump
analysis of high jump phases
the different techniques
training methodology
teaching progressions
technical regulation
equipment

Shot Put
analysis of shot put phases
the different techniques
training methodology
teaching progressions
technical regulation
equipment

Javelin throw
historical evolution of the javelin
analysis of javelin phases
the different techniques
training methodology
teaching progressions
technical regulation
equipment

Relay Races
transmission techniques
tactics of a relay ace
technical regulation
equipment
Race Walking
- technical analysis
- training methodology
- teaching progressions
- technical regulation

The Athletics School Model
- athletics adapted to younger age groups
- when to teach each discipline
- pedagogical and didactic progressions
- construction / adaptation of equipment
- preparation of teaching sessions / training for youngers
- practical application of teaching sessions / training

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Theoretical- practical -30h

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11. Continuous assessment during the semester in the classes **or**
12. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

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Expository methods, Independent Work, Co-work tasks, Teamwork, Special Activities

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Carvalho, J., Corrida Barreiras, FPA


Jonath, U., Haag, E., Krempel, R., Atletismo, 1ª edição em português, Lisboa, Circulo de Leitores, 1982

Matos, A., e Neves, J., A técnica de corrida, in Revista Treino Desportivo, nº5, 1987

Schmolinsky, G., Atletismo, 2ª edição em português, Lisboa, Editorial Estampa, 1982

Schroter, G., Como corrigir erros no Fosbury Flop, Cadernos Técnicos FPA, nº3, 1987

Tavares, F., Corrida Barreiras, Cadernos Técnicos FPA nº8, 1998

Vieira, J., Salto em Comprimento, in Boletim IAAF, nº 1 e 2, 1992

Vieira, J., Triplo Salto, in Boletim IAAF, nº 1 e 2, 1993
Outra documentação:
- Análise biomecânica dos atletas finalistas dos Jogos Olímpicos de Seul – IAAF (VHS)
- Planète AthléJeunes, Fédération Française d’Athlétisme, édition Clubs et Associations Sportives – DVD-Rom nº7, 2008
- Programa de provas e aspectos regulamentares – escalões jovens - FPA
- Regulamento Geral de Competições, FPA
- Regulamento da FPA para homologação de instalações para atletismo - FPA
- Viva o Atletismo (Caderno de Apoio), FPA
Name of Curricular Unit
Practical Studies I -Traditional Games  ECTS 1,25

Objectives
- Disclose the multicultural heritage of traditional games;
- Revitalize the practice in traditional recreational environment within and outside school;
- Identify the internal logic of traditional games and discussed their potential training and education;
- Implement the practice as a means school education through the development and practical application exercises pedagogical progression which lead to the acquisition of specific skills of the game;
- Implement the practice as a means for recreation and leisure time;
- Implement the play by play and play traditional sports as an introductory basic interpersonal communication and motor equivalent.

Program
- Presentation of the discipline.
- Presentation of the evaluation method.
- Introduction to the assumptions praxiology Driving.
- The traditional game as a teaching tool.
- Psychomotor activity: making the ball of rags, rags ball trial
- Psychomotor activities: rim and gancheta, set of cakes, lying ass, ass up.
- Psychomotor activity: stilts.
- Seen sociomotriz cooperation: the game of the high passes and wins.
- Take questions about the work
- Seen sociomotriz cooperation: caqueiro round game, online, and dispersed.
- Seen sociomotriz cooperation-opposition: the game of the wall; the game by going back and forth, playing the nut.
- Seen sociomotriz cooperation-opposition: Game of the plaster (2 x 2) (4 X 4).
- Seen sociomotriz cooperation-opposition: beto game.
- Seen sociomotriz cooperation-opposition: the game of Beth, an example of a practice desportivização playful traditional Portuguese Beto.
- Take questions about the work
- Seen sociomotriz cooperation-opposition paradoxológa: seated ball game, ball game hunter.
- Seen sociomotriz cooperation-opposition paradoxológa: Pig game, set of three fields.
- Seen sociomotriz opposition: take the stick fight of Galhófa.

Contact hours
Theorectical- practical – 30h

Evaluation
Evaluation, to choose one of two options:

13. Continuous assessment during the semester in the classes or
14. After finishing the classes a normal exam (if you have chosen 1 you can not do this)


APOIO


Aloy, Pe. P. (1882). Recreios Collegiaes. Por meio de toda espécie de jogos excepto
os de cartas e de armas. Lisboa: Typographia Universal.


Objectives
This course aims to fit the student with the essential elements regarding the teaching of the football game, regarding also educational needs of specific age groups, particularly at the baseline. The contents focus on the cultural principles of the game (general and specific), tactical - technical supporting actions and methods and teaching strategies appropriate to the introduction, exercise and consolidation of the already mentioned contents.

Program
1. The general laws of the football game;
2. The internal logic and the complex structure of the game;
3. Cultural principles (general and specific);
4. The tactical - technical actions, individual and collective (offensive and defensive);
5. Planning and execution of learning exercises;
6. The teaching throughout the stages of sports training (fundamental references);
7. The use of small sided games in teaching / training;
8. The importance of using exercises with specific links to the game, promoting creativity and multilateral training;
9. Introduction to the tactical system 2:3:1 (general organization).

Contact hours
Theoretical- practical -30 h

Evaluation
Evaluation, to choose one of two options:
1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Classes will be mainly theoretical and Practical (TP). In some occasions there will be Theoretical (T) sessions in order to support the learning contents.

Bibliography


Name of Curricular Unit
Practical Studies I-Swimming ECTS 1.25

Objectives
This course presents a framework of essential knowledge of: (1) domain of the aquatic environment and the techniques of swimming sport (2) the theoretical content of the course aimed to analyze the mechanisms of adaptation to the aquatic environment and the knowledge the technical models (Swimming strokes). At the end of the semester students should be able to represent with acceptable quality the four swimming strokes, and the knowledge of wide range of strategies for teaching.

Program
Determinants of human aquatic adaptation. Basic skills: Balanced - Floating, Breath; Propulsion; The first stages of adaptation to the aquatic environment - Levels of Water Environment Adaptation (AMA). The game approach as well adapted strategy for teaching and learning in swimming. The swimming strokes: Back, Crawl, Breaststroke and Butterfly. Analysis of the mechanics, body position, the shoulders roll, the movement of the arms, the movement of legs, breathing, synchronizing breathing with arms; global synchronization. The start: exercises for learning, critical components of teaching and correction. Analysis of frequent errors. The particular case of jumping to backstroke. The turns: the flip and the open turns. Methodological sequence. Exercises for learning and improvement.

Contact hours
Theoretical-practical -30h

Evaluation
Evaluation, to choose one of two options:

15. Continuous assessment during the semester in the classes or
16. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Varying the main objective in each practice session, students are invited to carry out practical tasks conducted by the teacher, providing time for students practice in order to improve their representation of strokes. They also are invited to, in small groups, to develop observation tasks of the technical error and to act in order to acquire skills for errors correction.

Bibliography


Rama L. (2009) Análise das técnicas da Natação Pura Desportiva. FCDEF. (Documento de estudo facultado on-line)
Name of Curricular Unit
Practical Studies I – Roller Skating ECTS 1.25

Objectives
[1] Meet the teaching learning process of skating;
[2] Understanding the factors that determine the correct execution of specific motor skills;
[3] To assimilate the rules of operation of practical lessons;
[4] Dominate the situation in practice the requirements of the sport;

Program
Knowledge of this sport;
- Introduction to skating
- Pedagogical advancement of teaching. Concepts and methodological principles of Figure Skating, Speed Skating, Roller Hockey and Roller Line;
- Levels of teaching of skating as a common core:
  Level I – Dynamic sliding: basic movements – Short steps; impulses with the skates in a T position; stopping with the skates in a T position;
  Level II – Skating with wide steps; spreading and bringing legs close together keeping both skates on the ground; dynamic balance;
  Level III – Curved paths with the 8 wheels on the floor and cross forward one leg over the other
  Level IV – Forward and backward half turn; Convergent, sideway and backwards stop; Jump using one or both skates to take off (height = 35 cm; length = 60 cm)
- Didactic unit of roller hockey.
  - Skating of the roller hockey player; holding the stick; mastering the ball; pass and reception; Shot; Dribble.
  - Didactic units of Figure skating and Speed skating; Pedagogic progression of the elementary techniques; Choreography elements and speed race competitions.
  - Roller hockey – Learn how to play hockey by playing it.
  - Games in limited spaces. Application of the technical contents taught in skating and roller hockey; Technical and tactics’ concepts in offensive or defensive situations.

Contact hours
Theoretical-practical -30 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

Practical classes take place in Pav. III;

Students are invited to witness the sports club in the region.

**Bibliography**

Batista, P. – Iniciação à Patinagem – CEFD Lisboa -2003

Christa-Maria e Kerler R – A.B.C. DA PATINAGEM – Edição Tempos Livres


Honório E - Hóquei em Patins - Aspectos Específicos da Modalidade - Pag. 9 a Pag. 20

Lacerda, Silvestre – O Hóquei em Patins em Portugal – Edições ASA

Romão, P e Pais, S. – Educação Física 7º,8º e 9º ano – Porto Editora -2004

Vaz, V. – Revista da Patinagem – Edição FCDEF - 2006

Programa de Educação Física (10º,11º,12º), homologado em Fevereiro de 2002. Edição PORTO EDITORA;


Vaz V (2011). Sebenta de Patinagem/Hóquei em Patins. FCDEF-UC
### 1st year  
#### 2nd Semester

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Name of Curricular Unit
Kinesiology II ECTS 4.5

Objectives
Develop students' interest and understanding about different kinesiology (anatomic and movement) aspects of the lower limb inherent in the physical activity and sports.

Develop the understanding and knowledge about the neuromuscular control and coordination mechanisms underlying the human movement.

At the end of the curricular unit, students are expected to be able to:

- point out the main articular/segmental movements and planes of movements.

- know the constitution of the pelvic girdle and lower limb: articular and muscle bone structures.

- know the muscle insertions and movement of the pelvic girdle and lower limb muscles.

- know the anatomy and kinesiological movement of the abdominal muscles.

- know the main movements, chains and kinetics of the lower limb during specific sports gestures.

- know the main pathologies of lower limb associated with sport practice.

- know the main anatomical structures of the central nervous system components: spinal-cord, sensitive and motor pathways, brain, cerebellum, basal ganglia and general principles of functioning.

- know the main anatomical structures of the peripheral nervous system components: brachial plexus, lumbar plexus, sacral plexus and peripheral nerves of the upper and lower limbs.

Program
Introduction to Kinesiology (introductory concepts, anatomical references, bone, joint, muscle: general concepts).


Pathologies of the pelvic girdle and lower limb associated with sport practice.
Description of movement: planes and axes of movement; General and specific terminology. Sports' gesture analysis and description of movement planes and types of movement.

The central and peripheral nervous system (introductory concepts). The spinal cord. The central nervous system – the encephalon. Voluntary motor pathways and sensitive pathways.

**Contact hours**

Theoretical -22,5h

Theoretical- practical -22,5h

**Evaluation**

Evaluation, to choose one of two options:

17. Continuous assessment during the semester in the classes or
18. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

In theoretical classes the syllabus contents will be presented by means of lecture method using multimedia presentations.

Theoretical and practical classes include a learning based on the observation of anatomical pieces and/or their images, as well as the kinesiological analysis of sports’ gestures. Classes include elements of descriptive and functional anatomy, as well as interpretation of the movement.

**Bibliography**


Rouvière H. 1996.

Sebenta – Cinesiologia I e II.

Anatomía humana : descriptiva, topográfica y funcional. Masson.
The General Physiology II curricular unit is a follow-up to the General Physiology I curricular unit (1st semester), providing more basic knowledge of the functioning of the human body.

Program

Contact hours
Theoretical -22,5h
Theoretical- practical -22,5h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Face-to-face teaching method with lectures, plus a learning component based on problem solving (PBL) as well as presentation of works

Bibliography


Name of Curricular Unit  
Motor Development and Adaptation  
ECTS 4.5

Objectives
[1] Understanding the ecology assumptions of human motor development;

[2] Describing the lifecycle in terms of acquisition and refinement of motor patterns and skills;

[3] Ability to use conceptual and instrumental tools for studying human variability

Program


[7] Assessment of motor skills within sports’ context;

[8] Assessment of the ability to coordinate the body - KTK battery.

[9] The concept of Fitness related to athletic abilities and fitness related to health.


Contact hours
Theoretical - 22.5h

Theoretical - practical - 22.5h

**Evaluation**

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you cannot do this)

**Teaching methods**

The curricular unit will consist of a 90-minute class per week, mainly a lecture class, and it follows the auditorium class model. In addition, there will be a 90-minute class per week, organized for each class, in which problem solving will be enhanced. In the end, students will have access to original support texts that are elaborated by the teachers.

**Bibliography**


Name of Curricular Unit
Statistics

ECTS 4.5

Objectives
- Get the basic notions of Statistic, its terminology and its most usual techniques and tests in Sport Sciences.

- Know some notions and skills of Informatic (SPSS).

- Distinguish Parametric Statistic from Non-Parametric Statistic.

- Identify the conditions to use the Parametric Statistic tests in Sport Sciences.

- Know and to do some Parametric Statistic tests in Sport Sciences.

- Use the statistic program SPSS to do Parametric Tests which were mentioned in 3.

Program
Statistics; general notions; representing a statistical variable; reducing a statistical variable: central tendency measures, dispersion measures, shaping and curtose measures: correlation theory; Student T; Anova.

Contact hours
Theoretical -22.5h
Theoretical- practical -22.5h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
- In the lectures the teacher explains the contents.
- In the practical lessons the students solve statistics exercises in informatics SPSS.

Bibliography


Name of Curricular Unit
History of Education

ECTS 4.5

Objectives

- Know the main contemporary pedagogy trends.
- Characterise the pedagogical ideas in order to identify the moments, the stages and the main spaces of the contemporary pedagogical speeches’ construction.
- Identify the moments and main stages of the contemporary pedagogical speeches’ construction as well as the most important authors.
- Fit the educational and pedagogical transformations into space and time criteria.
- Fit Physical Education trends into a historical reflexion on the contemporary speeches’ construction at national and international level.
- Know and use basic techniques for collecting and analysing information from historical and bibliographic sources.
- Understand the values and attitudes underlying physical activities in different historical periods.
- Characterize the evolution and the basic fundamentals of the different Physical Education trends that are developed by the gymnastics precursors.
- Know the development of Physical Education in Portugal.

Program

Theme 1 – The advent of educational intention and the construction of the school model:

1. From educational ‘impregnation’ to educational intention.

2. The construction of the school model within the historical combination of various factors: children’s invention and the establishment of disciplinary society.

3. The construction of the school model: the role of protestant ethics and the consolidation of customs civilization.

Theme 2 – The modern and contemporary pedagogical trends:

1. The basic assumptions of the pedagogical trends.

2. The ‘disciplinary’ trends.

3. From the New Education Movement to the Non-Directive Pedagogies of the Post-War Period.

4. The nationalist trends and the neo-directivism of pedagogy by objectives.

Theme 3 – Physical Education and sports in the 19th and 20th Centuries.

1. The military trends.
2. The hygiene trends.

3. Pedagogical trends.

4. Sport trends.

Theme 4 – The body and the contemporary thinking.

1. The anthropological notion of “Techniques of the Body”.

2. Self-care and health.

3. Narcissism and passion for the risk.

**Contact hours**

Theoretical -22.5h

Theoretical- practical -22.5h

**Evaluation**

Evaluation, to choose one of two options:

3. Continuous assessment during the semester in the classes **or**
4. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

- Theoretical classes using the lecture method and the Socratic dialogue.

- Practical classes consisting of group work and resolution of worksheets.

- Individual reading and guided discussion of texts whose reading is mandatory.

- Students may accomplish the curricular unit by means of continuous assessment or final exam.

**Bibliography**


Name of Curricular Unit
Practical Studies II - Canoeing
ECTS 1.25

Objectives
Knowing the various aspects and disciplines of canoeing;

Know how to select the equipment (paddle and kayak) best suited to each individual -
guiding principles;

Domain balance in kayak;

Domain paddling gesture;

Domain the boat while maintaining the same rectilinear motion;

Mastering the techniques of driving, allowing the student to move the boat and turn
away from obstacles;

Mastery of rescue techniques in the river and sea;

Ability to create a progression for teaching the various techniques discussed;

Plan, organize, implement and evaluate curriculum and educational projects in different
contexts and levels of education;

Ability to manage a business with boating safety.

Program
TP1 - Presentation.
- Announcement of the program.
- Organisation of classes: location, equipment needed, rules to follow.
TP2 - Introduction to kayaking:
- History;
- Origins, emergence and evolution in Portugal;
- Canoeing disciplines: still waters; descent and rivers sports, games nautical, nautical
tourism, sailing canoe;
- Degree of difficulty of the waters;
- The sports equipment: boat, paddle accessories;
- Selection of the appropriate materials to the individual and the situation. - Safety
lessons in canoeing.
- Transportation of the vessel.
- Loading and unloading.
TP3 - Technical Paddling. - Practice transport vessel and the technique of loading and
unloading.
- Introduction to Kayak paddle technique.
TP4 - Maneuver Propulsion. - Practice the technique of rowing in kayak.
- Learning the tricks of balance: support impulse and suspension.
TPS - Maneuver Propulsion. - Practice the technique of rowing in kayak.
- Introduction to retropulsion.
TP6 - Introduction to driving maneuvers: circular front and rear, called incidence.
TP7 - Practice of all techniques discussed so far.
- Introduction to appel (stroke side).
TP8 - Technical basic kayak-polo.
TP9 - Basic Technique in slalom.
TP10 - Organization of boating activities.
- Approach of canoeing in school: objectives.
TP11 - rescue techniques in the river and the sea.
- Introduction to Technical Rescue.
TP12 - Practice all the techniques, learning the circuit evaluation.
TP13 - Test writing assessment.
TP14 Assessment practice - conducting a pre-determined circuit, using the techniques discussed in class.
TP15 Continuation of previous lecture.

**Contact hours**

Theoretical- practical -1,5h

**Evaluation**

Evaluation, to choose one of two options:

3. Continuous assessment during the semester in the classes or
4. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

Different methods and teaching techniques in accordance with the objectives to be achieved during the sessions (exposure, guided, among others).

**Bibliography**


Name of Curricular Unit
Practical Studies II - Climbing

Objectives
Climbing subject, taught at FCDEF-UC, empowers students with the skills necessary to carry out climbing teaching at Artificial Climbing Walls (ACW) in Top-rope/Bottom roping. To do so, after completing the course, students will be able to:
- Place a rope on top-rope, through access to the top of the wall, always maintaining safety
- Climbing, and belaying other climbers, on top-rope/bottom-roping on routes graded IV / IV+, always demonstrating safety and efficacy in all actions
- Place a rope for abseil down using bolted tops, knowing how to install themselves and abseil down safely, as well as making other climbers abseil down.
- Lead climbing sessions on top-rope/bottom-roping and on Bouldering.
- Knowing the general history of climbing and be familiar with the equipment and resources specific of this modality.

Program

- Climbing history

  . Different forms of Climbing

  . Movement Technique
    - How to teach the movements
    - How do we learn the movements
    - Progressions
    - Specific warm up, cool down and stretching
    - Movements repetition
    - Relationship between body position and footwork
    - Footwork
    - How to use hands
    - Importance of the forces opposition
    - Importance of body position
    - How “to rest” while climbing
    - Dynamic movements
    - How “to read” (anticipate) movements

- Venues:
  - Artificial Climbing Structures/Walls (ACS/ACW)

- Equipment
  - Dynamic of forces and falls
  - ropes
  - footwear
  - seat harness
  - carabiners
  - Equipment for belaying and for abseil down
  - The use of magnesium carbonate
. Working with ropes and safety techniques
- knots for tie in
- self-locking knots
- belaying a climber
- abseiling down
- Considerations for instruction at ACS/ACW, on Top-rope/Bottom roping

.Accidents
- How to avoid accidents

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<tr>
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<td>Luebben, Craig, Nudos para escaladores, 2ª edição em castelhano, Madrid, Ediciones Desnivel, 1995</td>
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<td>McMillan, Neville, Care and Maintenance, 1ª edição, Manchester, edições BMC, 2001</td>
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<td>Núñez, Tino, Cuerdas y nudos de alta resistencia, 1ª edição em castellano, Madrid, Ediciones Desnivel, 2002</td>
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<td>Richardson, Alun, Rock Climbing for instructors, 1ª edição, Marlborough, The Crowood Press Ltd, 2001</td>
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<td>Shubert, Pit, Seguridad y Riesgo, 1º edição em Castelhano, Madrid, Ediciones Desnivel, 1996</td>
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<tr>
<td>Winter, Stefan, Escalada deportiva con niños y adolescentes, 1ª edição, Madrid, Ediciones Desnivel, 2000</td>
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Name of Curricular Unit
Practical Studies II - Capoeira
ECTA 1.25

Objectives
Framed in the context of the undergraduate curriculum in Sport, and the set of block / sports disciplines essentially, will occupy the transmission of historical contents, their meanings and dynamics that occur over time, and the movements they are private, suited to their different forms of expression, which highlighted the struggle, the game, gymnastics and dance.

1. Promote ownership of the specific contents of Capoeira
2. Promote the application of the specific contents of Capoeira to their different forms of expression;

1. Promote the application of the specific contents of Capoeira to their different forms of expression and different development environments;
2. Promote ownership of the specific contents of different systematic education for the development of physical education classes;

1. Develop the capacity of analysis and interpretation of different phenomena occurring in the school environment;

Program
1. Structural aspects and you work
   1.1. Historical
   1.2. Characteristic
   1.3. Importance of its practice
   1.4. Aplicability practice in Physical Education - teaching pedagogy
2. Fundamental movement
   2.1. Swings
3. Secondary movements
   3.1. Cartwheel
   3.2. Cocurinha
   3.3. Negative
   3.4. You avoid
   3.5. Falls
   3.6. Bblockades
3.7. Flourish or dribble
4. Blows Traumatics (offensive)
   4.1. Stocking front moon
   4.2. Armed of backs
   4.3. Blessing
   4.4. jaw
   4.5. Cut
   4.6. Hammer
   4.7. Knee
   4.8. Header
   4.9. Palm
   4.10. Godeme
   4.11. Galloping
   4.12. Wrest
4.13. Stocking compasses moon
4.14. Header in the cartwheel
5. Blows in unbalance
5.1. Rasteira
5.2. Front scissors
5.3. Scissors of backs
5.4. Jumped blessing
5.5. Revengeful
6. Tied up movements
7. Choreography

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Theoretical- practical -30h

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3. Continuous assessment during the semester in the classes or
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The methodology is applied to theoretical and practical, requiring students to read the text on the selected mode, developing strategies for developing individual and group 2x2.

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Name of Curricular Unit
Practical Studies II - Rugby
ECTS 1.25

Objectives
- Mastering the content, tools and skills of sports action sports selected.

- Mastering the content, tools and skills of educational intervention in schools, selecting appropriate strategies for the development of learning of physical and sporting activities, using various teaching models of instruction, planning and organization tailored to specific social contexts.

- Plan, organize, implement and evaluate programs of sports training in different contexts.

- Describe and demonstrate the technical elements of the fundamental tactical selected sport, identifying and correcting their major technical errors, and improve physical fitness and motor skills of the players.

Program
1 - Presentation of the (organizational elements and requirements) and the modality (general peculiarities of the game of rugby)

2 - Basic Technique: various types of passes; procedures for the reception of the ball contacts in attack and defense.

3 - Basic Technique: technical procedures in the field of movement, transportation of the ball.

4 - Theoretical Concepts: selection and deselection; fixing the defenders; situations "out of play.

5 - Basic Technical: technical procedures for the defense.

6 - Tactical elementary framework in the attack, putting the devices, pressure on the ball carrier, keeping the ball.

7 - Basic Technique: contact in attack; means of attack at ¾ s.

8 - Technical Collective game groupings: ruck and maul, simple games used in the learning stage.

9 - Technical Collective specific technique in the "orderly formation" push position, connection and synchronization of effort.

10 - Technical Collective technique to "alignment" capture-release of the ball and heel support jumper.

11 - Tactical elementary classical forms of play: "off", sharp-clustered, "kick" game after FOR and alignment.

12 - Tactical elementary counterattack: favorable conditions, types of counter-attack.

13 - Tactical elementary strategy to the time fixed for attack and defense.
14 - Tactical elementary teaching methodology of the game w/ various age levels;


**Contact hours**

Theoretical- practical -30 h

**Evaluation**

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

- Theoretical Rugby practices, individual threads and / or in groups, reading books, playing rules, book chapters and articles, access and use of specific databases, the building (s) student (s) plans Rugby lessons with exercises for teaching young athletes, a summary of the exercises per class Course, active participation and / or passive training of young athletes or seniors and watching rugby games.

**Bibliography**

Leis do Jogo: Federação Portuguesa de Rugby


Name of Curricular Unit
Practical Studies II - Volleyball
ECTS 1.25

Objectives
Objectives of the Course Unit:

- Characterize volleyball game
- Identify basic rules
- Interpret the tactics and techniques
- Organizing and structuring a volleyball teaching program

At the end of the Volleyball course unit the student should be able to:

- Identify the basic rules of the game.
- Characterize the volleyball game, knowing its dynamics, concepts and principles.
- Organize and structure a program for teaching the game to an initial level of practice, using the formal terminology and symbols.
- Understand the physical actions involved in tactical-technical and technical content.
- Use, create and adapt appropriate evaluation instruments at the level of practice, in the perspective of teaching physical education, in the context of school sports and sports training.

Program
1. History of the game.
2. Rules of the game.
3. Individual technique.
   3.1 Basic positions (low, medium and high). Volleyball stance.
   3.2 Footwork drills - shuffling.
   3.3 The set / overhand pass
   3.3.1 set (front, back and side)
   3.3.2 set in suspension (front, back and side)
   3.4 the forearm pass/ dig (bump)
   3.4.1 front
   3.4.2 side
   3.5 the serve
   3.5.1 underarm serve
   3.5.2 overarm serve
   3.6 attack
   3.6.1 the spike: the race, the call, the jump, the spike, the fall.
   3.6.2 amortie.
   3.7 the block.
4. Individual tactic.
5. Collective tactics.
5.1 attack systems.
5.2 reception systems.
5.4 defensive systems.
6. Volleyball mini games - reduced opposition and cooperative games (1 x 1; 2x2; 3x 3; 4 x 4)

**Contact hours**
Theoretical- practical -30 h

**Evaluation**
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes **or**
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**
The teaching methodology includes theoretical and practical lessons.

**Bibliography**


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# 2nd Year

## 1st Semester

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**Name of Curricular Unit**
Biomechanics  
ECTS 4.5

**Objectives**
The discipline of Biomechanics aims to study the key factors and determinants for the interpretation of the mechanics of human movement, to understand the dependence of the interdisciplinary Biomechanics internal and external to the study of different expressions of human movement, to study the system osteo-myo-articular to understand how forces are generated and the effect of these forces on the human body producing movement, study the methods of measuring the movement and its dependencies for practical and theoretical analysis of the Biomechanics of human Movement, providing conditions for the student to continue in the study and development of research and analysis movement tasks applied in the areas of health, sport and ergonomics; provide students with an experience of observation and analysis of certain sporting techniques, in order to provide a more concrete awareness of the difficulties and effective teaching and correction of certain specific technical gestures some sports, making it easier, safer and objective intervention by the future trainer / teacher, and provide students with practical guidance on the use of certain equipment for biomechanical analysis.

**Program**
1. Biomechanics as an interdisciplinary and biomechanical models of human motion analysis;
2. Concepts for the kinematic and kinetic analysis of human movement;
3. Terminology and concepts of simple mechanics;
4. Biomechanics of the structure bone and joints;
5. Biomechanical Aspects of muscle function;
6. Analysis of muscle strength in human movement and sports;
7. Biomechanics of the spine and upper extremity;
8. Biomechanics of the lower extremity;
9. Biomechanics of walking, running;
10. Linear kinematics of human movement;
11. Angular Kinematics of human motion;
12. Linear Kinetics of human motion;
13. Balance and Center of Gravity;
14. Angular Kinetics;
15. Introduction to Fluid Mechanics;
16. Qualitative and quantitative analysis of human movement

**Contact hours**
Theoretical -22,5h
Theoretical-practical -22,5h

**Evaluation**
Evaluation, to choose one of two options:

5. Continuous assessment during the semester in the classes or
6. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Não existem métodos de ensino definidos.

Bibliography
Faro, A. *Biomecânica – aulas práticas*, 7ª Ed. FCDEF-UC, 2011

Faro, A. *Biomechanics*, 1ª Ed FCDEF-UC, 2011


**Name of Curricular Unit**
Exercise Physiology  
ECTS 4.5

**Objectives**
It is intended that students consolidate and acquire expertise in exercise physiology. The curricular unit also aims at familiarizing students with different methodologies used in sports science for assessing physical fitness, body composition and the effects of exercise according to many physiological parameters. It is also intended that students learn how to use the equipment available in the Biokinetik Laboratory independently, participating in the ongoing activities of the laboratory.

**Program**

**Contact hours**
- Practise and Laboratories – 15 h
- Theoretical -15 h
- Theoretical- practical -24 h

**Evaluation**
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**
Lectures and supervised laboratorial practice. Students will be continuously assessed on their ability to use the available laboratory equipment autonomously by a supervisor.

**Bibliography**
- Physiological Assessment of Human Fitness, Peter J. Maud, Carl Foster, 2nd Ed, Human Kinetics, 2006
Physiology of Sport and Exercise, 3rd ed., Wilmore & Costill eds, Human Kinetics, 2004

Principles of Exercise Testing and Interpretation, 3rd ed., Kwasserman et al. eds, Lippincott, Williams & Wilkins, 1999

Young People & Physical Activity, Armstrong & Welsman eds, Oxford University Press, 1997
Name of Curricular Unit
Motor Control and Learning ECTS 4.5

Objectives
Study and knowledge of Motor Behavior, seeking to understand human movement voluntarily controlled, by describing the processes and mechanisms underlying motor performance and the acquisition and retention of motor skills.

The student should: a) describe and explain the fundamentals and general theories of motor learning and motor control, b) understand motor learning as a study area of physical education and sport; c) understand the basic terminology used in the study of motor control and learning and its application in physical education and sports; d) describe and explain the results of research work and studies relevant to the motor control and learning.

Program
3) The Information-Processing Theory. Memory.
4) Attention and Motor Performance.
5) Motor Control – Sensory Contributions to Motor Control (proprioception, vision and audition)
6) Motor Control – Central Contributions to Motor Control
7) Coordinated Movement control - Schema Theory.
8) Coordinated Movement control - Dynamic Pattern Theory.
9) Coordination.
10) Individual Differences and Capabilities.
12) Learning Factors: previous factors – Motivation, demonstration and verbal instructions.
13) Factores de aprendizagem: factores concomitantes – organização da prática
14) Factores de aprendizagem: factores posteriores – Informação de retorno
15) Retention and Transfer

Contact hours
Theoretical -22,5h
Theoretical- practical -22,5h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Não existem métodos de ensino definidos

**Bibliography**


**Name of Curricular Unit**
Sport Pedagogy

**ECTS 4.5**

**Objectives**
The unit deals with cultural and relational aspects of training, how they fit in social reality, and the relations with all the agents, and organizations, especially through the study of the coach. The understanding of sports and sports competitions, how the athletes learn during their personal development, and the importance of preparation to compete.

The students should be able to critically analyze the different environments they are going to meet in their professional lives.

**Program**
1) Sport Pedagogy as a meeting point for sport sciences: past, present and future.
3) The coach as a central actor in Sport Pedagogy. The philosophy of the coach.
4) Reflexive coach. The competences of the coach.
5) The learning process. To know the athletes and how they learn sports skills. Constructivism in sport training and the athletes’ identity.
6) Learning methods. Heuristic and hermeneutic, global and analytic.
7) Observation and analysis of practice sessions. Methods and tools.
8) Constructivism. *Teaching Games for Understanding* and *Game Sense*.
9) The athletes’ perceptions of their coaches: effects on motivation, well being and performance. The athletes’ participation in their own training.
10) Ecological approach of training process
11) Coaches training and education: a never-ending process.

**Contact hours**
Theoretical - 22.5h
Theoretical- practical - 22.5h

**Evaluation**
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)
Teaching methods

The teaching methodologies combine the expositive lectures with field work, divided by practice observation, through recording tools, and coaches’s interviews. The activities are performed by small groups of students. Video resources are widely used for observation and demonstration of good practices. Internet search of group interests sites (TGfU or Game Sense) is also used.

Bibliography


Name of Curricular Unit
Adapted Physical Education Teachers
ECTS 4.5

Objectives
To promote the scientific, theoretical and practical knowledge in the intervention with students with special educational needs and inclusion in Physical education classes and develop the skills to plan and implement appropriate programs to the specific needs of students. As learning outcomes, the student should:

- Master the contents related to the history of special education and adapted physical education;

- Be familiar with the taxonomy of disabilities and with the institutional mechanisms and the legal bases that support physical education teachers;

- Understand the mechanism of special educational needs and recognize the classification;

- Acquire the assumptions concerning the elaboration and implementation of individualized education programs;

- Inventory materials and resources available and use appropriate strategies for inclusion in PE class;

- Recognize the definition, classification and etiology of special needs and identify the educational strategies according to the characteristics of the population;

- Propose appropriate tasks according to the psychomotor characteristics of students.

Program
Theoretical classes:

- Historical retrospective of special education.

- Social approaches to disability in contemporary societies: medical model versus social model.

- Ways and conditions for integration. The concept of inclusion.

- Main difficulties experienced by teachers in regular education towards the inclusion of young people with SEN.

- The national reality in terms of inclusive education: services and support mechanisms available to the teacher towards inclusion.

- Special education services and teacher support teams.

- The role of adapted physical education.

- Individualized Education Program.

- Teaching strategies for with students with SEN.
The particular case of evaluation in adapted PE.

Physical fitness instruments adapted for children and young people with SEN.

Practical lessons:

- Taxonomy of disability and SEN.

- Hearing impairments; Visual impairments; Physical disabilities; Intellectual disabilities; Development disorders and Autism:

- Definition; etiology; classification; functional profile; teaching strategies and adaptations in inclusive physical education.

Presentation of activities aimed to include of students with disabilities in PE lessons.

**Contact hours**

Theoretical -22,5h

Theoretical- practical -22,5h

**Evaluation**

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

The teaching methodology includes teacher’s exhibition of theoretical and practical-theoretical issues, through the use of lectures, audiovisual and interactive and student’s presentation of theoretical-practical tasks

**Bibliography**


Name of Curricular Unit
Practical Studies III-Handball  ECTS 1.25

Objectives

[1] Identify the basic knowledge associated with the pedagogical and didactic contents of the sport;

[2] Acquire the capacity for applying the technical and tactical (individual and collective) contents;

[3] Identify the basic set of contents of the game and designing teaching situations of overshoot and progression in training or school environment;

[4] Reflect on teaching practices, drawing on the resources available to the personal and professional development;

[5] Induce practical actions, based on sport specific interventions, including the interdisciplinarity of other recreational, formative and sportive areas.

Program


[3] Basic technical elements (offensive and defensive individual technique): Defensive position (attitude); Offsets; Opponent's control; Dribble disarm; Ball interception; Offensive position; Grip and handling of the ball; Pass (shoulder, chopped and side); Reception (high and low); Dribble of progression; Dribble of protection; Shot.


[6] Initial approach to the game: adapted games; Mini-Handball (aims and adaptations, strategies and constraints).

[7] Introduction to stages of the game and the formal systems of game.

Contact hours

Theoretical- practical -30 h

Evaluation

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods

Learning tasks directed by the teacher. Guided discovery of appropriate methodologies of pedagogical interventions. Sessions lectures in plenary classroom model.


Name of Curricular Unit
Practical Studies III -Orienteering ECTS 1.25

Objectives
The subject of Orienteering aims to provide students with the knowledge needed for teaching/training and for the organization of orienteering events. To do so, after completing the course, students will be able to:

- Perform successfully orienteering course in its different forms;
- Understand and use different navigation techniques;
- Program and lead Orienteering sessions, through the use of different educational games and teaching progressions;
- Schedule and organize small competitive events at the school/club;
- Evaluate the possibility of carrying out activities in the chosen location, keeping in mind the safety issues;
- Draw a map of park or garden, in large scale, after a base map;

Students will also know the history of the Orienteering and different forms of Orienteering beyond the major assumptions of the technical regulation of competition, as well as specific equipment and resources.

Program
- Orienteering history
- Different forms of Orienteering covered by IOF
- Equipment
- Maps
- Elementary navigation techniques
- Advanced navigation
- Signage
- Orienteering teaching
- Cartography
- Competitions and regulations
- Use of new technologies for Orienteering teaching
- Production of alternative materials for Orienteering teaching

Contact hours
Theoretical- practical -30 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Expository methods, Independent Work, Co-work tasks, Teamwork, Special Activities.

Bibliography


Lourtie, André, La course d’Orientation: Sport Populaire, Revista Education Physique, Dez 1967.

Manual de Traçador de Percursos - FPO


Oliveira, Miguel, Documento de Apoio para as Aulas de Orientação, FCDEF-UC, 2005


Regulamento de Competição da IOF para Orientação Pedestre.

Regulamento de Competição da IOF para Orientação Pedestre.

Regulamento de Competição da FPO.

Regulamento de Arbitragem e Controlo de Provas - FPO.

Regulamento de Cartografia da FPO.

**Name of Curricular Unit**
Practical Studies III - Judo  
ECTS 1.25

**Objectives**
Know the main groups of judo techniques: throwing (during the standing phase) and controlling (during the ground phase) and the opportunities of their use (tactics). Be able to propose a progression for judo initiation using as main pedagogical tools the guided discovery teaching style, Judo principles and a range of conditioned games that allow the repetition of the solutions for the problems by means of application of the techniques within a context. Teach the art. Be able to teach the art of falling without losing and to make progress. Learn a wide range of exercises and games for warming-up and strength training without equipment to develop general fitness and coordination abilities. It can be a first step to obtain the graduation of Judo trainer by means of the achievement of a university graduation for those students who wish to invest in Judo.

**Program**

<table>
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<th>Classes Summary</th>
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<tr>
<td>TP 3-8 : Immobilizations, attack on all four, attack partner in between the legs. Falling in rolling (Zempo Ukemi), throwing in movement. Blocking throw : Sasae-tsuri-omi-ashi and hiza-guruma. Throw with the back and 2 supports: Uki-goshi, o-goshi, tsuri-goshi, tsuri-komi-goshi, koshi-guruma, seoi-nage. Sweeping throw (okuri-ashi-barai), throw with the back and one support (uchi-mata, harai-goshi). Training forms (yaku soku geiko: working in movement and without opposition, uchi komi: repetition of technique, kakari geiko: specific opposition games, randori: combate training). Evaluation: creativity, participation, quality of falling down, correction and variety of techniques, technical and tactical options (observation and questions)</td>
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<tr>
<td>TP 9-14 : Zempo ukemi, throwing backwards, forwards blocking or twisting, with two or one support, in movement (technique alone or in combination). Immobilizations, attack partner in between the legs, attack on all four, attack in between the legs of the partner, going out of the legs. Applied games, training forms. Sacrifice of the body and combination from stand work to the ground work. Attacks in the back with strangle and arm lock (juji-gatame, hadaka jime, katate-jime, okuri-eri-jime, sode guruma jime). Strangle and arm lock on partner in all four or lying on his back. Differences between reaping and sweeping. Evaluation: quality of falling, correction and variety of techniques, technical and tactical options (observation, competition and questions)</td>
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<tr>
<td>TP 15-17 : revisions of teaching progression, yaku soku geiko of technical demonstration, kakari geiko and randori of tactical application for the techniques and the different strength training exercises of the classes. Referees initiation, history and objectives of Judo. Adjusting the continuous evaluation.</td>
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Contact hours
Theoretical- practical -30 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Using the problem resolution teaching style, to motivate the practise, help to have an opinion, to develop the creativity and increase the competencies. Using the oriented games has continuation of the discoveries and increases the implication in the practise. On the basis of the competencies self-acquired, reflection about technical and tactical principles and the main points for success the techniques, like about the training methods and the teaching methods for Judo practise. Reflection about the principles in Judo of mutual respect and better use of energy has part of the pedagogy. In parallel, acquire o large panel of exercises and games.

Bibliography
Livro de progressão pedagógica em exercícios/ books about teaching progression


Livro geral sobre o Judo com critérios de execução das técnicas/ Technical books

Name of Curricular Unit
Optional Sports III -Tenis
ECTS 1.25

Objectives
- Acknowledge basic notions of Tennis;
- Learn the best methods for Tennis initiation;
- Identify key technical and tactical errors;
- Learn how to correct key technical and tactical errors;
- Acquire a general notion of the Game of Tennis and Mini Tennis;
- Learn how to organize a tournament;
- Acknowledge the rules of arbitration.

Program
Tennis initiation.
Main techniques.
The game:
- Mini-tennis;
- Tennis.
Planning a season at the follow levels:
- Initiation;
- Improvement;
- Competition.
Tournament organization.
Practical training in Clubs.

Contact hours
Theoretical- practical -30 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Practical sessions where students will be in the field listening to the explanation and illustration of a particular technical gesture or content that will be addressed afterwards, passing immediately to the execution of this gesture or content. When practicing, a trainer will be available to correct students so that they can automate actions in accordance with the technique taught and demonstrated, and to ensure that the subjects covered were learned. In pedagogical practice, students will be monitored weekly during the course of their curricular activity.

Bibliography


Quinn, A. (s.d.). Evaluate your players’ tennis fitness. Austrália.
**Name of Curricular Unit**
Optional Sports III - Rowing  
ECTS 1.25

**Objectives**
The program aims to contact and learning a sport boating – rowing, providing the knowledge and skill on tow sides: as an athlete and as an instructor.

**Program**
The program includes: analysis of different types of boats available in the official regulation of FISA; the technical model of rowing in rowing-ergometer and the most common technical errors; adaptive rowing and its specific needs according to the degree of limitation of users; handling and all maneuvers, including the ability to return to the boat safely in the event of falling overboard; make and correct the technical rowing pattern, and presenting strategies for their correction; develop skills that allow students to apply skills of observation and technical exercises.

**Contact hours**
Theoretical- practical -30 h

**Evaluation**
Theoretical subjects based on exposure. Theoretical-practical sessions aimed at earning the act of rowing as well learning the teaching of rowing.

**Bibliography**


Marques, J. (s/d). A Criança e o remo. Lisboa. Secretaria de Estado dos Desportos e Juventude, Ministério da Educação e Investigação Científica

**Name of Curricular Unit**  
Practical Studies III -Basketball  
ECTS 1.25

**Objectives**  
A disciplina visa fornecer ao estudante os conhecimentos e as metodologias de ensino necessárias para leccionar e treinar Basquetebol em fases de iniciação ao jogo e na primeira especialização (dos 8 aos 16 anos).

**Program**  
Apresentação do Jogo: terreno de jogo e equipamentos; breve história e evolução do Basquetebol, meio para compreender o espírito do jogo.

Fundamentos técnicos com bola: o drible de progressão e drible de protecção; passe; posição básica ofensiva e enquadramento com o cesto; paragens a 1 e 2 tempos; rotações; lançamento na passada; lançamento após paragem e com salto.

Fundamentos tácticos: a transição defesa-ataque com 3, 4 e 5 jogadores; passe e corte base–extremo; 1 contra 1; trabalho de recepção do extremo do lado da bola para abrir linha de passe; aclaramentos; ocupação de espaços ofensivos;

Defesa do portador da bola; ajudas defensivas

**Contact hours**  
Theoretical-practical -30 h

**Evaluation**  
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
5. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

**Bibliography**  


## 2nd Year

### 2nd Semester

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Name of Curricular Unit
Biochemistry of Exercise ECTS 6

Objectives
Exercise biochemistry studies the human metabolism during exercise and its adaptation to exercise. It studies the subcellular and molecular mechanisms that explain how the body reacts and adapts to exercise, the metabolic adaptation to training like changes in enzymatic activity or the capacity to use different energy sources. At the end of this unit the student should be able to know what characterizes the different biomolecules; how to correlate structure with function in the different biomolecules; to know which factors affect the biochemical reactions; to understand the lipidic and carbohydrate metabolism; to understand which metabolic energy pathways are involved in the different types of exercise; to understand the importance of genetic and of some nutrients in athletic performance; to know the main metabolic adaptations to training; to understand the training limitations and the possible negative effects of excessive training loads.

Program

Contact hours
Theoretical -22,5h
Theoretical- practical -22,5h

Evaluation
Evaluation, to choose one of two options:
1. Continuous assessment during the semester in the classes, or
2. After finishing the classes a normal exam (if you have chosen 1 you cannot do this)

Teaching methods
Theoretical course: in view of the students need for a solid and systematic information, oral exposition with graphic and audiovisual aids is used. In order to integrate the theoretical knowledge with practical training problems, the active participation of the students is stimulated through the presentation of practical cases. Practical classes with the development of experimental protocols that promote the integration of theory and practice. Student participation is also stimulated through the choice and oral presentation of a scientific paper.
Bibliography


Name of Curricular Unit
Exercise Prescription  ECTS 6

Objectives
It is intended that students master a set of contents that enable them to understand the basic principles of exercise assessment and prescription tailored to special populations. This will allow them to optimize and individualize physical exercise with a view to obtaining a better physical condition and higher health levels, thus contributing to a better protection of risk factors and an inevitable improvement of the quality of life.

Program
Health, risk assessment and safety in exercise prescription:

- Benefits and risks associated with physical activity;
- Health screening and risk stratification.

Physical Tests:

- The pre-exercise evaluations;
- Physical fitness tests adjusted to health status and their interpretation;
- Clinical Exercise Testing;
- Interpretation of data produced by physical tests.

Exercise Prescription:

- General principles of exercise prescription.

Exercise prescription for the diseased population:

- Cardiac patients and other medical conditions that influence exercise prescription.

Contact hours
Theoretical - 45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The curricular unit consists of theoretical and theoretical and practical sessions. Students will have the opportunity to conduct fitness assessments in practical lessons using the required laboratory equipment.

Bibliography
American College of Sport Medicine – Guidelines For Exercise Testing And Prescription (2006) Lippincott Williams & Wilkins


### Name of Curricular Unit

Teaching Practice  
ECTS 6

### Objectives

Acquire knowledge about the planning process of nuclear subjects of Physical Education from the guidelines recommended in the National Programs of Physical Education; to develop processes of reflection about the content of nuclear materials and its form of manipulation to be submitted as a proposal for teaching practice, taking into account the conditions and intentions of Physical Education as a curriculum area with specific educational value. Identify and manipulate quality standards in planning and pedagogical intervention, stimulating their critical analysis.

### Program

PE National Official Curriculum – conceptual and methodological characteristics, and consequences to school PE.

Annual, Thematic and Class Planning – conceptual and documental, characteristics and quality criteria.

Pedagogical Intervention – dimensions, skills and efficacy criteria.

### Contact hours

Theoretical-practical -45,5h

### Evaluation

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

### Teaching methods

The lectures draw on a broad spectrum of methods and teaching techniques, among which stand out the methods of oral presentation summaries made by the students, small group work, discussion of short texts, etc. The practical classes are an essential component of the discipline. It seeks to build a path that simultaneously extends the reach of problematization made during the lectures in the pursuit of educational synthesis, and comparison with the results of existing research, which aims to controlled experimentation and informed analysis. Its structure is based on the placement of students in situations of micro-teaching, planned and evaluated by them at different levels (large group and small groups).

### Bibliography


Programa de Educação Física – 3º ciclo do Ensino Básico. Volumes I e II.
Siedentop, Daryl (2002). *Developing Teaching Skills in Physical Education*. Mayfield Publisher

Name of Curricular Unit
Youth Sports  ECTS 6

Objectives
[1] Understanding the ecology of human development;

[2] Describing the lifecycle in terms of acquisition and refinement of motor patterns and skills;

[3] Ability to use conceptual and instrumental tools for studying human variability

Program
BLOCK 1: ORGANIZATION OF YOUTH SPORT: a) Introduction and statistics; b) Coaches, referees, parents, clubs; c) benefits and risks of participation; d) trainability and modelling developmental changes of strength and efforts in short, middle and long term protocols.

BLOCK 2: TRAINING AS A SOCIAL MICRO-SYSTEM AND CLIMATE: a) Stages of long term preparation; b) motives for participating; c) reasons for dropout; d) Coach behaviour during practice and competition.

BLOCK 3: THE YOUNG ATHLETE: a) growth and maturation in the context of Sport, variation of stature, body mass and body composition per Sport, sex and age; b) assessment of functional capacities taking into account the example of the Coimbra Soccer Study (YOYO, 7-sprints, agility, lower limb strength; c) assessment of Sport-specific skills using the example of the Coimbra Soccer Study: shooting, dribbling, passing, Ball control; d) Predictors of functional capacities and skills reported in the Soccer study as an example; e) Organizing a club and the competitions.

Contact hours
Theoretical-practical -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The teaching load is composed by 90-minute session per week in an auditorium and a supplemental session of 90 minutes in the laboratory. Finally, students will have access to original support texts elaborated by the teachers.

Bibliography


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Name of Curricular Unit
Optional Sports I -Basketball ECTS 6

Objectives
The unit aims to provide the student with the competencies to act as coaches at a specialization level.

Program
1) Dynamics of the game. The contemporary high level game. Time rules and their impact on tactics.

2) Fast break and transition game. Passing lanes and role specialization.

3) Building the offense: a developmental perspective. Perimeter game and inside game.

4) Spacing in high level game: cut and clear out. Changing the ball side.

5) 1 on 1 inside and outside. Opening a passing lane and receiving the ball. Passing and timing.


8) Motion offenses versus set plays. Offense against man-to-man and against zone. Game observation and data collection. Scouting and digital technologies.

Contact hours
Field Work -15 h

Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The teaching methodologies combine the expositive lectures with field work, with the students acting as assistant coaches in specialization teams. Video resources are widely used for observation and data collection.

Bibliography


**Name of Curricular Unit**  
Optional Sport I - Combat Sports  
ECTS 6

**Objectives**  
Be able to differentiate training for health and competition training; aerobic, anaerobic alactic, anaerobic lactic and strength training in the context of the combat sport. Be able to identify the different kinds of efforts in the specific modality, to qualify the efforts observed. Be able to adapt the theory in methodology of training for the training in the specific combat modality, with use of specific exercises. Be able to adapt the training for young athletes. Be able to control the charge of training in the combat sport. Be able to program or analyse one planarization of the training for functional capacities in the specific sport. Facultative: acquired notions to organize one initiation in self-defence in the specific combat modality.

**Program**  
Theoretical classes: T-1 Presentation and program the semester; T-2-7 Training methodology (Aerobic, Anaerobic, Speediness); T-8-10 Training methodology (Strength training); T-11 Characterisation of the modality and specific training methods; T-12-15 Planarization of training.  

OP classes: OP-1-7 Stimulation of training plan + participation and observation of training (Aerobic, Anaerobic, Speediness); OP-8-11 Technique of strength training, stimulation of training plan + participation and observation of training (physical conditioning); OP-12-15 Stimulation of planarization of training + participation and observation of training (planarization of training).

**Contact hours**  
- Field Work -15 h  
- Tutorial -45 h

**Evaluation**  
Evaluation, to choose one of two options:  
1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**  
Homework, observation and reflection on conditioning training methodology of the combat modality, to allow one planarization with more efficient trainings, for adult, young and children athletes. The classes turn always seminars with reflexion in group, and are oriented on field practise. The homework that will be presented in the form of one report, relate the observations and the student may realise investigation dependant of his interests and on the orientation of the teacher.

**Bibliography**  
Name of Curricular Unit
Optional Sports I-Climbing
ECTS 6

Objectives
Enable students with the skills necessary to carry out teaching, instruction and guiding other climbers in climbing areas¹, up to one pitch.

Knowing the history and evolution of climbing as well as all equipment and resources specific of this modality.

¹ - ACS/ACW, bolted venues and non bolted venues.

Program
- Climbing history

- Different forms of Climbing

- Movement Technique
  - How to teach the movements
  - How do we learn the movements
  - Progressions
  - Specific warm up, cool down and stretching
  - Movements repetition
  - Relationship between body position and footwork
  - Footwork
  - How to use hands
  - Importance of the forces opposition
  - Importance of body position
  - How "to rest" while climbing
  - Dynamic movements
  - How “to read” (anticipate) movements
  - How to improve acquired skills
  - How to teach on a climbing route
  - panic/fear control
  - Falls technique
  - Communication in Climbing

- Venues:
  - Artificial Climbing Structures/Walls (ACS/ACW)
  - Natural venues (bolted and non bolted)

- Equipment
  - Dynamic of forces and falls
  - ropes
  - auxiliary ropes
  - footwear
  - seat harness
- carabiners
- Equipment for belaying and for abseil down
- helmet
- bolts
- pitons
- nuts
- camming devices
- devices for solo climbing
- the use of magnesium carbonate

. Working with ropes and safety techniques
- knots for tie in
- self-locking knots
- other knots
- belaying a climber leading
- abseiling down leading
- Climbing on one pitch routes
- how to place intermediate protections
- how to install tops

- Considerations for instruction in Sport Climbing routes
- Considerations for instruction in Non Bolted Routes (One Pitch)
- Considerations for leading climbing

. Accidents
- How to avoid accidents

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<tr>
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Perrin, J., Playful progenitor W. P. Haskett Smith and the development of British rock
climbing, in Mountain nº108

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Ropper, S., Camp IV, Chroniques du Yosemite, Editions Guérin, Chamonix, 1998

Rouse, A., L'alpinisme britannique à l'avant-garde? in Alpinisme et randonnée, nº5, 1979

Shubert, Pit, Seguridad y Riesgo, 1ª edição em Castelhano, Madrid, Ediciones Desnivel, 1996


Winter, Stefan, Escalada deportiva con niños y adolescentes, 1ª edição, Madrid, Ediciones Desnivel, 2000
Name of Curricular Unit
Optional Sports I-Soccer

ECTS 6

Objectives
This course aims to fit the student with the multidimensional requirements of football training with a major emphasis on youth football training process.

Program
1. Metric quantification of the game.
2. Physiological characterization of the game.
3. Definition of the players by field position e characterization of the young player.
4. Influence of the biological variability in training and competition.
5. Age-related variation in football skills development.
6. Tactical development in young players.
7. The relationship between the number and the space dimensions in the learning process of the game (7vs7 and 11vs11).
8. Impact and dynamics of the small-sided games.
9. Dynamics of the rules and the influence of the training process.
10. The preparatory period.
11. Goal-Kepper characteristics and his specific training.
12. Control and monitorization of the training process.
13. 433 system.
14. 442 system
15. 352 system

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:
3. Continuous assessment during the semester in the classes or
4. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Initially the classes will assume a plenary format. After this initial approach the students will be exposed to a laboratorial environment.
Bibliography


**Name of Curricular Unit**  
Optional Sports I – Physical Activity in Special Populations  
ECTS 6

**Objectives**

The Course aims to promote opportunities for practice in the area of special educational needs, enabling the practice through direct contact with people with disabilities.

In terms of general objectives, the student must:

I. Use the theoretical and practical knowledge acquired and assess, prescribe and implement activities to improve the physical condition of individuals with disabilities, and to improve their health and their physical and mental well-being;

II. Match physical activity programs designed to the specific needs of each individual or group of individuals according to their capacities and taking into account their functional profile.

**Program**

Theoretical-practical lessons:

- Importance of the initial assessment in planning and organization of exercise programs. Selection of measuring instruments depending on particular characteristics of each group.

- Theoretical principles of exercise prescription in special groups.

- Principles adaptation for physical conditioning and implementation.

- Methodology of aerobic endurance training in practitioners with special needs.

- Aerobic resistance assessment instruments in special groups: developing practical programs.

- Strength training methodology in practitioners with special needs.

- Instruments for evaluation of muscular strength in special groups: developing practical programs.

- Methodology of flexibility training in practitioners with special needs.

- Flexibility assessment instruments in special groups: developing practical programs.

- Organization of a Sport event.

Practical lessons:

- Planning and implementation of recreational and sport sessions.

**Contact hours**

Field Work - 15 h

Tutorial - 45 h
Evaluation

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods

The teaching methodology includes teacher’s exhibition of theoretical and practical-theoretical issues, through the use of lectures, audiovisual and interactive and student’s presentation of theoretical-practical tasks.

Theoretical-practical sessions take place once a week and the practical lessons take place twice a week, in FCDEF-UC or in institutions. These lessons consist in planning and implementing practical sessions for people with special needs.

Bibliography

Name of Curricular Unit
Optional Sports I - Swimming  ECTS 6

Objectives
The program aims to further the assumptions of professional intervention in the field of aquatic activities, including the teaching of swimming and in the field of swimming as a sport.

Program
The theoretical program includes: analysis and interpretation of the regulations of swimming sports (FPN - FINA), fundamentals of hydrodynamics and propulsion; analysis of swimming techniques in biomechanics perspective, observation and evaluation of swimming techniques, organization of teaching swimming and application a teaching swimming program for different levels; the theoretical-practical program aims to increase the repertoire for acting in the error detection and selection of appropriate correction strategies, the use of instruments for technical observation, using underwater video as a privileged tool for error detection.

Contact hours
Field Work - 15 h
Tutorial - 45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Theoretical topics based on exposure. Aiming to pursue the interpretation of issues related to teaching and representation of technical models (swimming strokes).

Bibliography


Name of Curricular Unit
Optional Sports I –Roller- Skating  ECTS 6

Objectives
- Programs of the physical education – Skating and Roller hockey;
- Preparation of a didactic unit of skating sports;
- System for evaluating content of the didactic unit;
- Construction of the lesson plans of 45 and 90 minutos;
- Activity in the educational teaching skating and the club and school;
- Organization of activities in school and in the club;
- Field work in the area of educational intervention in school and club.

Program
[1] Identify the teaching methods of skating; Understanding the educational advancement of the teaching of discipline;
[2] Develop and understand the extent and sequence content of didactic unit;
[3] Analyze the education programs specific physical modalities of skating;
[4] Principles methodological for the application of the sequence and extent of the contents of the didactic units;
[5] Building endpoints in the various fields;
[6] Understanding the requirements and implication process teaching and learning in school clubs;
[7] Organizing and planning classes and training appropriate to the profile of the student or athlete.

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The format of Theoretical lesson has a session with a presentation made by the teaching of subjects in literature or flagged in texts produced by the teacher;
Practical classes take place in Pav. III;
Students are invited to witness the sports club in the region.

Bibliography


Programa de Educação Física (10º,11º,12º), homologado em Fevereiro de 2002. Edição PORTO EDITORA;


Vaz V (2009). Sebenta de Patinagem/Hóquei em Patins. FCDEF-UC
Name of Curricular Unit
Optional Sports I -Acquafitness  ECTS 6

Objectives
Development of teaching strategies adapted to water aerobics.
Assessment, planning and pedagogical intervention considering the students' abilities level.
Deepening of scientific knowledge related to the teaching of water aerobics.

Program
Characteristics of work in water (characteristics and dynamics of water and its influence on the intensity of the class).
Heart rate theories (differences between working in water and on land).
Posture and physical execution of basic moves.
Choreographic development.
Contraindicated exercises.
Instructor profile.
Adaptations of the class to different populations (children, adults, sedentary, athletes, seniors, pregnant women).

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Collective teaching sessions, tutorial-type individual guidance sessions, projects, field work, independent study.

Bibliography

Adami, M. (2002). Aquafitness. DK publishing


Name of Curricular Unit
Optional Sports I - Recreation  ECTS 6

Objectives
I. To propitiate the student the knowledge concerning the area of the Recreation, games, toys and game
II. To facilitate its performance in several application fields
III. Reflection and domain of the inherent concepts to the Recreation
IV. To propitiate elements of theoretical aspects that allow the development of studies and researches in the field of Recreology.

Program
1 - concepts and approach:  1.1 - recreation ; 1.2 - lazer ; 1.3 - ludic ; 1.4 - game ; 1.5 - toy; 1.6 - game.
2 - classification of the games following different authors.
3 - recreation and games in the human development:  3.1 - in the different age groups ; 3.2 - in the cycles of the life ; 3.3 - for different public-objective.
4 - the game as content in the Physical Education:  4.1 - education through the game; 4.2 - recreation; 4.3 - prevention ; 4.4 - adaptation ; 4.5 - inclusion.
5 - shops lúdic:  5.1 - concept; 5.2 - objectives; 5.3 - in the face of-project.

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:
1. Continuous assessment during the semester in the classes  or  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
a) Theoretical Classes eminently positive;
b) Theoretical-practice where is permitted the students' interaction with the educational starting from the suitable readings previously;
c) Elaboration of reading records to accomplish out of the time course;
d) Independent study;
e) Attendance.

Bibliography


**Name of Curricular Unit**

Psychology of Sport  
ECTS 4

**Objectives**

Master a set of content that enable the student to understand and frame the scope of activities and objectives of sports psychology and mental training;

Understanding the contribution that sport psychology and mental training can have on improving individual performance, both athletes start sporting activity, and elite athletes;

Acquire theoretical and practical knowledge about methods and techniques specific to this area, for planning and action together with the athletes, in order to help them overcome situations of mental instability arising from the competition and optimize sports performance.

**Program**

1 - Introduction to Sport Psychology. Major guidelines and research, sport psychology as a science.

2 - Sport and personality development, research and personality assessment instruments.

3 - Motivation What is motivation? Summary of main theories of motivation in sport; Developing motivation, Motivation for sports participation and motives. Principles of reinforcement, positive and negative reinforcement; intrinsic motivation.

4 - Arousal, stress and anxiety definition of concepts, sources of anxiety and stress; How does the activation and anxiety affect performance. Techniques to reduce anxiety;

5 - Analysis of sporting environments. Definition of competition and cooperation, competition as a process, positive and negative aspects; development cooperation;

6 - Feedback, reinforcement and intrinsic motivation, principles of reinforcement; guidelines for administering positive reinforcement; approaches to behavior modification, intrinsic motivation and extrinsic rewards, strategies to increase intrinsic motivation.

7 - Group dynamics as a group becomes a team? Development of a climate of team; individual and group performance.

8 – Communication. The communication process effectively send and receive constructive criticism.

9 Techniques to improve performance, mental skills training (Psychological Skills Training); Its importance and basic knowledge, opportunity, planning and implementation of a PST program; most common problems in its implementation.

10 Control of arousal, increasing the perception of arousal, using techniques to reduce anxiety, dealing with adversity and using techniques to induce arousal activation.
11 Imagery. What is and how it works? Types of imagery. Basic principles and development of training programs.

12 Objectives Setting. Basics and effectiveness, planning a system of objective setting; Main difficulties in its implementation.

13 Concentration. What is concentration? Types of focus of attention, attention problems, advice and exercises to improve concentration.


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<th>Teaching methods</th>
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<td>- Theoretical practices, individual and group tasks specific to the content, reading books, book chapters and articles, access and use of specific databases and watching videos.</td>
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Name of Curricular Unit
Sport and Exercise in Special Populations

Objectives
- Understand and frame disability sport within their organizational structures both at national and international level.
- Understanding the contribution of exercise for health and well-being of people with special educational needs and fit exercise as a preventive measure in terms of health and physical and mental well-being (WHO).
- Identify the guidelines aimed to improve physical condition in special populations.
- Develop knowledge about theoretical and practical aspects of planning, organization and adaptation of non-competitive sports activities, specific to each area of disability.
- Develop theoretical and practical knowledge on the methodology of training for different adapted sports to each specific area of disability and analyze the most important physical qualities associated with performance.

Program
[1] Historical and cultural adapted sports movement, its importance for the rehabilitation of individuals with disabilities
[3] Adapted sport organizations at national and international level: the case of the Special Olympics and the Paralympics
[4] Sports classification and eligibility in Disability Sport
[5] Physiological, psychological and sociological benefits of sport and regular exercise in special groups, implications for health and well-being
[7] Planning and evaluating programs to improve aerobic endurance, strength, flexibility and speed / agility, and main conditioning methods

Contact hours
Theoretical- practical -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Theoretical sessions of expository nature and theoretical-practical sessions based on problem solving situations. Students are encouraged to read a total of 17 articles in English (17x4 hrs) and four articles in Portuguese (4x2 hrs). It is assumed that an article in English requires 4 hrs of reading and in Portuguese 2 hrs.

**Bibliography**


Name of Curricular Unit
Gerontology of Sport and Education  ECTS 4

Objectives
The scheduled program pursues a strong formation on physical exercise evaluation, prescription and promotion for older adults. One intends a leadership of practice based on strong conceptual formation about:


[3] Advice to participants with needs of behavioral changes.


Program


[3] Functional adaptations to the aging, and physical exercise positive effects.


[8] Prescription of the physical exercise to promote behavior changes.


Contact hours
Theoretical- practical -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Method based on face-to-face exposition, and on another component based on problem resolutions and oral presentations of written works.
Bibliography


Name of Curricular Unit
Organisation of Leisure Activities

Objectives

I. Apply the contents and knowledge developed in the disciplines Recreation I, II, III, in way to propitiate the student its performance in the several application fields.

II. To enlarge its fan of professional possibilities to the students starting from the application for the occupation of the free times through monitored activities, in agreement with the inclusions and speciality of the actions drifted as well as of the white public in subject, through the organization, administration and administration of recreo-sport events.

III. To Promote the development of activities sport ludic for the community in general, looking for its mobilization and in consideration to its needs of occupation of its free time.

Program

Not existing

Contact hours

Theoretical-practical -45 h

Evaluation

Evaluation, to choose one of two options:

2. Continuous assessment during the semester in the classes or
3. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods

a) Theoretical Classes eminently positive;

b) Theoretical-practice where is permitted the students' interaction with the educational starting from the suitable readings previously;

c) Elaboration of reading records to accomplish out of the time course;

d) I Study independent;

e) Attendance.

Bibliography


Stoppani, J. El servicio deportivo y recreativo municipal: modelos y programas para su desarrollo. Editorial Gymnos: Madrid, s/d.


### Name of Curricular Unit
Teaching Analysis ECTS 4

### Objectives
Student development in educational analysis and diagnostic, including: understanding of educational situations complexity, identifying different dimensions in pedagogical acts; recognizing teaching strategies in Physical Education, skills development in constructing observational and record instruments and qualitative and quantitative data interpretation from educational situation analysis. Development of students' methodological and reflexive competencies in pedagogical research.

### Program
Foundations of educational observation. The observation process. Observational elements and methodologies in educational context. Observation techniques and instruments. Direct and indirect observation of educational phenomena – record techniques and data analysis. Structured educational observation models and the constructing process of data record instruments. Introduction to the study of pedagogic relationship. Teaching strategies in Physical Education. Classroom discipline and indiscipline.

### Contact hours
Theoretical-practical – 45 h

### Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

### Teaching methods
Theoretical lessons with direct instruction with thematic powerpoint presentations (22h 30m); practical lessons based in non direct teaching and cooperative learning using unit’s support texts (22h 30m); independent study and readings (20h); oriented study within inductive thinking (8h) group fieldwork (30h); Assessment (5h).

### Bibliography


**Name of Curricular Unit**
Analysys of Educational Organisations  
ECTS 4

**Objectives**
Use sociological approach to understand transformation of the education system. Understand theories and models of school organization.
- Identify and compare scientific trends of school organization analysis;
- Identify the social and organizational characteristics of schools;
- Discuss the efficiency and effectiveness of school organizations.
Understand school organization as a system of behaviors of various social actors.
- Analyze social climate of the school as a cognitive map of the actors in relation to its dynamics;
- Relate organizational culture with the broader contexts that constitute its environment;
- Compare structuralistic and symbolic approaches.
Understand the role of organizational variables in the development of educational projects.
- Know and apply organizational diagnostic tools;
- Examine the decision-making styles in the development of educational projects.

**Program**

**SCHOOL AS A SUBJECT OF STUDY**
1. From the consolidation of the *school grammar* to institutionalist school movement.
2. Levels of analysis of the school as institution.
3. The autonomy of schools, routes and speeches.

**THEORIES AND MODELS OF SCHOOL ORGANIZATION**
1. Models of school organization.
2. The effectiveness and excellence of the schools.
3. Structure and organizational characteristics of schools.

**SCHOOL AS A SYSTEM OF SOCIAL BEHAVIOUR OF ACTORS**
1. The social climate of the school.
2. The culture of the school.
3. Social actors in the school.

**GOVERNMENT AND MANAGEMENT OF SCHOOLS AND ORGANIZATIONAL PROJECT**
1. Directors and management of schools.
2. Analysis, diagnosis and evaluation of schools.
3. Organizational project, educational innovation and organizational change.

**Evaluation**
Evaluation, to choose one of two options:
1. Continuous assessment during the semester in the classes **or**
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

The lectures draw on a broad spectrum of methods and teaching techniques, among which stand out the methods of oral exposure, the use of Socratic dialogue, the syntheses carried out by the students, small group work, discussion of short texts, etc. The practical classes are an essential component of the discipline. It seeks to build a path that simultaneously extends the reach of questioning made during the lectures in the pursuit of educational synthesis, and comparison with the results of available research, which aims the integration and intelligibility of theoretical models. In proposing a critical review of research already carried out under each of the thematic course, aims to make successive theoretical and methodological approaches to the objects of study proposed. Its structure is based on the oral presentation of recommended texts and their stimulation of debate on its contents.

**Bibliography**


### 3TH YEAR

#### 2nd Semester

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Name of Curricular Unit
Optional Sports II -Basketball  ECTS 6

Objectives
The unit aims to provide the student with the competencies to act as coaches at a specialization level.

Program
1)Organization of Portuguese and international Basketball. Age groups and levels of competition. Coaches' education. FIBA and national teams.

2)Building the defense. Defensive transition.


4)Zone defenses 2:3, 2:1:2.

5)Zone defenses 1:2:2, 1:3:1, 3:2

6)Combined defenses.

Contact hours
Field Work -15 h

Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The teaching methodologies combine the expositive lectures with field work, with the students acting as assistant coaches in specialization teams. Video resources are widely used for observation and data collection.

The student must work with a specialization team, supervised by an experienced coach and by the teacher, applying the unit contents. A play book and a coach file are organized by the student, including a research project with the team. A final presentation, followed by the teacher’s questions is elaborated in digital version.

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Name of Curricular Unit
Optional Sports II – Combat Sports
ECTS 6

Objectives
Be able to identify the knowledge technical-tactical structure of the combat modality, to permit one structured observation of the training and the competitions. Be able to identification the charge of technical-tactical exercises in the planarization of the trainings. Elaborate a sum of specific exercises to develop the technical-tactical aspects of the combat sport. Be able to elaborate one teaching progression on the basis of the technical-tactical structure of the modality. Be conscientious of the danger in hypocaloric diet to attain one weight category, and be able to propose acceptable counsel. Facultative: acquired notions to organize one initiation in self defence in the specific combat modality. Coaching and Club dynamic.

Program
Theoretical classes: T-1 Preparation of the semester; T-2-5 Technical tactical structure in combat sport; T-6-9 Apply of the technical tactical structure in the observation (training, competition, planarization); T-10-14 Teaching progression in combat sports (children, young, adult); T-15 The weight loss problem in combat sports

OP classes: OP-1-5 Stimulation of technical tactical exercises for the situations + participation and observation of training (technical tactical aspects); OP-6-9 Observation support elaboration + participation and observation of training and competitions; OP-10-14 Stimulation of teaching progression + participation and observation of training (witch progression?); OP-15 Main counsel for weight loss + participation and observation of training (witch progression?)

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Homework, observation and reflection on technical tactical methodology of the combat modality, to allow one planarization with more efficient trainings, for adult, young and children athletes. The classes turn always seminars with reflexion in group, and are oriented on field practise. The homework that will be presented in the form of one report, relate the observations and the student may realise investigation dependant of his interests and on the orientation of the teacher.

Bibliography


**Name of Curricular Unit**
Optional Sports II -Climbing

**ECTS 6**

**Objectives**
Enable students:
- to plan and carry out technical and tactical climbing teaching
- to plan and organize activities for teaching and practice of climbing

**Program**

. Movement Technique
- How to teach the movements
- How do we learn the movements
- Progressions
- Ideal places to practice
- Movements repetition
- Big-Wall techniques
- How "to rest" while climbing

- How to improve acquired skills

- How to teach on a climbing route

. Venues:
- Multi pitch routes
- Aid climbing routes

. Equipment
All equipment covered  Sports Option I - Climbing +

- ladders
- portaledges and suspension seats

-pulleys
- Other gear for fixing intermediate points and tops

. Working with ropes and safety techniques
- other knots

- Climbing on multi pitch routes
- how to place intermediate protections
- how to install tops
- belay one or more climbers

- Considerations for instruction in either Multi Pitch and Aid Climbing routes
- Considerations for leading in either Multi Pitch and Aid Climbing routes
. Accidents
- How to avoid accidents
- rescue gear
- rescue techniques
- solving problems in either Multi Pitch and Aid Climbing routes

**Contact hours**
Field Work -15 h
Tutorial -45 h

**Evaluation**
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**
Expository methods, Independent Work, Co-work tasks, Teamwork, Special Activities.

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**Name of Curricular Unit**
Optional Sports II - Soccer  
ECTS 6

**Objectives**
This course aims to deepen the students’ knowledge and skills in carrying out the mission of teaching the game. The didactical and pedagogical dimensions will dominate this course with a major focus relatively to the presented in practical studies.

**Program**

1. The initial part of the class

   1.1. Introduction of the skills in the beginning of the lesson (warm up) aiming to maximize students exposure.

2. Development of appropriate methodologies for teaching the football skills:

   2.1. ball control

   2.2. pass / reception

   2.3. shooting

   2.4. heading

   2.5. dribbling

3. Development of appropriate methodologies for the teaching of specific game normatives:

   3.1. offensive

      3.1.1. penetration

      3.1.2. offensive support

      3.1.3. mobility

      3.1.4. space

   3.2. defensive

      3.2.1. contention

      3.2.2. defensive support

      3.2.3. balance

      3.2.4. concentration

4. The complexification of the exercise and the manipulation of game variables:

   4.1. number

   4.2. space
4.3. format

**Contact hours**

Field Work -15 h

Tutorial -45 h

**Evaluation**

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

The classes will have a expository component a infield practice.

**Bibliography**


**Name of Curricular Unit**  
Optional Sports II – Physical Activity in Special Populations ECTS 6

**Objectives**  
The Course aims to promote opportunities for practice in the area of special educational needs, enabling the practice through direct contact with people with special needs.

**Program**  
- Theoretical-practical lessons:
  - Theoretical principles of exercise prescription in special groups.
  - Sports classification - Its importance on planning.
  - Implementation of adapted sports training in special populations - inventory of material resources needed.
  - Evaluation of the training process; readjustment of objectives.
  - Preparation for the competition: practical applications associated with the improvement of physical training, technical training and tactical training.
  - Manipulation of practice variables: practical applications in special groups.
  - Inventory of the main procedures of the organization of a sport event, with the participation of groups of athletes or teams in the competition. Human and material resources.
  - Organization of a Sport event.

Practical lessons:  
- Planning and implementation of recreational and sport sessions.

**Contact hours**  
Field Work -15 h  
Tutorial -45 h

**Evaluation**  
Evaluation, to choose one of two options:  
1. Continuous assessment during the semester in the classes or  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**  
The teaching methodology includes teacher’s exhibition of theoretical and practical-theoretical issues, through the use of lectures, audiovisual and interactive and student's presentation of theoretical-practical tasks.
Theoretical-practical sessions take place once a week and the practical lessons take place twice a week, in FCDEF-UC or in institutions. These lessons consist in planning and implementing practical sessions for people with special needs.

**Bibliography**
Name of Curricular Unit
Optional Sports II -Swimming
ECTS 6

Objectives
The course is oriented towards the study of specific factors related to the training of Swimming Sports. It will examine the fundamentals and the methods for aerobic, anaerobic and speed training. Additional it addresses the strength and flexibility training specific for swimming. Will be presented the guiding principles of planning and periodization and finally we will present a proposed of sports career.

Program
Fundamentals and objectives of swimming training. The energetic in swimming training: the aerobic and anaerobic training. The speed training. Land Training for swimming. Importance of strength to swimming performance. Specificity means to strength training. The importance of flexibility in swimming. The technical training. The importance of technique in swimming. Phases for technique acquisition. The tactical training. The bio-energy implications. The career path in swimming. Importance of growth, maturation, development for training load progression. The stages swimming development; The beginning phase, the basic training phase; the specialization, contents of technical and physical training. The role of competition and adequate planning and periodization strategies. The high-performance training level. Planning and periodization training in swimming. Classic and integrated macrocycles. Monitoring and control training adaptation in swimming.

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
The theoretical sessions will follow an expository presentation of key issues for understanding the training process in swimming. The theoretical and practical sessions will take place in supervised training environment.

Bibliography


Name of Curricular Unit
Optional Sports II –Roller- Skating
ECTS 6

Objectives
[1] Identify the roller hockey in the context of collectives spots;
[2] – Process the formation the young hockey player;
[3] Prepare the annual and pluri-annual planning for training and the formation and competition;
[4] Understanding the process of training the formation and competition;
[5] Methodological principles for the implementation of the exercise;
[6] Organize and plan training teams of competition and formation;
[7] To understand the requirements and implications the process formation and competition;
[8] Application of game models for training and competition teams;
[9] Observe and learn the instruments of analysis;
[10] Apply the parameters of evaluation and monitoring of training and competition.

Program
[1] – Organization of the sport;
[2] – The development of the young player;
[3] – The learning process with the application of teaching unit of roller hockey;
[4] – Planning na annual team competition and training team;
[7] – Model game of formation and competition teams;
[8] – Systems and observation practices and games;
[9] – Parameters for evaluation and control of the training and game;

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:
3. Continuous assessment during the semester in the classes or
4. After finishing the classes a normal exam (if you have chosen 1 you cannot do this)

**Teaching methods**

The format of Theoretical lesson has a session with a presentation made by the teaching of subjects in literature or flagged in texts produced by the teacher;

Practical classes take place in Pav. III;

Students are invited to witness the sports club in the region.

**Bibliography**


Name of Curricular Unit
Optional Sports II - Aquafitness  
ECTS 6

Objectives
Development of teaching strategies adapted to water aerobics lessons with materials. 
Assessment, planning and pedagogical intervention considering the students' abilities level. Safety and Contraindications for materials. 
Deepening of scientific knowledge related to the teaching of water aerobics using different types of materials, justifying and substantiating the chosen material in practice.

Program
Benefits of working with different didactic materials, utilization strategies. Security, storage, maintenance and acquisition issues. Support materials; Fluctuation; Dragging; others... (characterization). Adapting didactic materials to different populations. Analysis of movement type, muscle contraction, planes and axes. Strategies for working with choreography and muscle toning.

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:
1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
At the end of the semester, students must prepare and present a water aerobics class, respecting the guidelines provided throughout the contact sessions.

Bibliography
Name of Curricular Unit
Optional Sports II - Recreation ECTS 6

Objectives
Increase the knowledge developed in the discipline Recreation way I to drive the students to act with the population objective under the orientation of preset actions, such as the shops applied ludics to different targets.

Program
1 - games 1.1 - traditional games 1.2 - popular games 1.3 - dramatic games 1.4 - cooperative games 1.5 - pre-sport games
2- shops Ludic 2.1 - concepts 2.2 - objectives 2.3 - characterization (leisure streets, gymkhana, tournaments...) 2.4 – application.

Contact hours
Field Work -15 h
Tutorial -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
a) Theoretical Classes eminently positive;
b) Theoretical-practice where is permitted the students' interaction with the educational starting from the suitable readings previously;
c) Elaboration of reading records to accomplish out of the time course;
d) Independent study;
e) Attendance

Bibliography
**Name of Curricular Unit**

Organisation and Sport Management  ECTS 4

**Objectives**

Contents selected pursue a formation in the area organization and sport management in various sectors of the society. Organization and Sport Management intends to contribute to the formation of people qualified to act in a local, regional, national or international arena. Intends also qualify people to act different sectors like federative, professional, touristic, scholar, and even healthcare system. One intends a practicing leadership departing from conceptual formation including: 1. Strategic thinking in sport development. 2. Decision making in management of sport facilities. 3. Decision making in investment in sport projects. 4. Process of changing and strategic people management.

**Program**


**Contact hours**

Theoretical- practical -45 h

**Evaluation**

Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

Method based on face-to-face exposition, and on another component based on problem resolutions and oral presentations of written works.

**Bibliography**


**Name of Curricular Unit**  
Nutrition and Sport  
ECTS 4

**Objectives**  
Balanced nutrition for health peoples: theoretical basis and their practical aspects. Sports nutrition: for the training, and before, during, after the competition of different types (short, length, team, strength). Supplement and performance. The objective is not substituted the nutritionist, but yes, facilitate the complementarily with this professional.

**Program**  
**Theoretical classes**

- General concept (nutrition, nutrients, food, …) (1 class)
- Food groups, physiology of nutrition (1 class)
- Nutritional evaluation and introduction of nutritional assessment (1-2 classes)
- Balanced food (3-4 classes)
- Sports nutrition (3-4 classes)
- Questions (1-2 classes)
- Evaluation T and TP (2-3 classes)

**Theoretical – Practical classes**

- The food composition table (1 class)
- Portion evaluation (2 classes)
- Nutritional evaluation and nutritional assessment exercises (2 classes)
- Excel use to calculate the diet (1 class)
- Calculate 3 nutrition days, analyse the results and elaborate nutritional advises (3 classes)
- Analyse the nutrition of one athlete before, during and after the effort (3-4 classes)
- Questions about the homework (1-2 classes)

**Contact hours**  
Theoretical- practical -45 h

**Evaluation**  
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes  
2. or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

**Teaching methods**

The theoretical classes are quite always followed by TP classes with applications of the concepts. The knowledge of the topics is regularly controlled by frequencies and the homework are well prepared during the TP classes where there is always space for the students questions. We frequently question the students during the classes and their intervention is encouraged when they have to interpret the table presented in the slides. The theoretical classes are of collective nature, and we have personal orientation for the homework preparations. The independent study is necessary for the preparation of the frequencies.

**Bibliography**


Name of Curricular Unit
Curriculum Development
ECTS 4

Objectives
Development of student competencies in curriculum development process and strategies, in order to: understand and justify educational planning practice within curriculum theory in specific contexts; recognize curriculum theory and curriculum development relevance in teaching practices; identify curriculum models and planning processes; develop planning, curriculum enactment and evaluation skills within different levels and specially at school level; acquire practical skills in constructing contextualized curriculum projects.

Program

Contact hours
Theoretical- practical -45 h

Evaluation
Evaluation, to choose one of two options:

1. Continuous assessment during the semester in the classes or
2. After finishing the classes a normal exam (if you have chosen 1 you can not do this)

Teaching methods
Theoretical lessons with direct instruction, thematic powerpoint presentations and student questioning (22h 30m); practical lessons based in non direct teaching and cooperative learning (22h 30m) supported by texts and other material from internet; independent study and readings (20h); oriented study (6h); curriculum project development in group work (30h); Assessment: written test preparation (7h).

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