

Course Description Form

Review the performance of higher education institutions ((review of the academic program))

(Course Description (Kinetic Analysis

This course description provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he or she has made the most of the available learning opportunities. It must be linked to the program description.

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| 1. Educational institution | Faculty of Physical Education and Sports Sciences |
| 2. University Department / Center | |
| 3. Course Name/Code | Kinetic Analysis / |
| 4. Programs in which he enters | Physical Education and Sports Sciences |
| 5. Available Attendance Forms | Full Time – Daily |
| 6. Semester / Year | First and second / 2023-2024 |
| 7. Number of Credit Hours (Total) | 2 hours per week |
| 8. The history of preparation of this description | 2024 |

9. Course Objectives

- 1- Enhancing the student's ability to keep pace with the development in the field of sports movement analysis
- 2- Know the appropriate analysis mechanism for sports movements
- 3- Increase the student's ability to use kinetic analysis software
- 4- Increase the precise observation ability imposed by the material for the kinetic analysis process
- 5- Communicating the student's cognitive skills in proportion to the student's mental ability
- 6- Understanding comparisons and performance advantage through the kinetic analysis process
- 7- The ability to predict the level and its development by establishing the concepts of correct analysis of sports movements

10. Learning outcomes and teaching, learning and assessment methods

A- Knowledge and understanding

- 1- Building a philosophy and understanding the foundations of kinetic analysis
- 2- Set goals, design kinetic analysis activities and teach lesson content
- 3- Basic principles of the analytical process of different events

- 4- Division of the analysis process according to the principles of movement and its motor stages
- 5- Evaluating the level of performance through skill performance analysis

B - Subject-specific skills

- Adjust the software for kinetic analysis -1
- The ability to achieve motor development through the process of kinetic analysis -2
- The ability of educational activities that achieve an advanced level in understanding -3
and absorbing kinetic analysis
- Planning and implementing the method of operation and finding individual -4
differences between students
- 5- Numbers of teachers capable of analyzing movements mechanically

Teaching and learning methods

- The student learned some programs for kinetic analysis -1
- The use of computers continuously enhances and develops the student's learning -2
using kinetic analysis
- Owning screens associated with displaying lectures in an integrated manner for all -3
classrooms, which stimulates the education process
- The use of the biomechanical laboratory as part of the student's teaching the – 4
method of measurement and is part of the tasks of kinetic analysis

Evaluation methods

- . Daily tests with multiple-choice questions for subjects -
- Participation grades for students' challenging competition questions .
- Setting grades for assigned homework in two ways, the practical part -
and the theoretical part

C- Thinking skills

- Providing students with general knowledge in biomechanics and kinetic -1
analysis
- Applying the knowledge gained by students in sports training and motor -2
learning from the principle of understanding kinetic analysis
- Benefiting from what students have learned from the analysis process and its -3
implications in their graduation research

d. General and transferable skills (other skills related to employability and
(personal development

- .D1- Time management to achieve the maximum benefit and the best return**
- D2- Using the means of effective communication skills and the ability to work
together to activate the processes related to the sports field**
- D3- Using methods and procedures to collect, build and analyze databases using
the computer**
- D4- Writing and presenting reports and memoranda using modern means of
communication and technology**
- D5- Active participation in professional gatherings of local and national physical
education and in the wider educational field**
- D6- Practicing continuous learning and self-learning in the sports field and in life
in general**
- .D7- Leading individuals to achieve the desired goals**

D8- Knowledge of one of the foreign languages to activate the work environment when needed.

| 11. Course Structure | | | | | |
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| The week | Hours | Required Learning Outcomes | Name of the unit/course or topic | Method of education | Evaluation method |
| 1 | 2 | Learn and acquire analytical concepts | Introduction to kinetic analysis The concept and importance of kinetic analysis | Built-in presence | Oral and written participation |
| 2 | 2 | Learn and acquire analytical concepts | Types of kinetic analysis For biomechanical analysis of motion | Built-in presence | Oral and written participation |
| 3 | 2 | Learn and acquire analytical concepts | Motion and relative motion Motion phenotype | Built-in presence | Oral and written participation |
| 4 | 2 | Learn and acquire analytical concepts | Kinetic analysis according to the time course / regular movements and irregular movements | Built-in presence | Oral and written participation |
| 5 | 2 | Learn and acquire analytical concepts | Anatomical levels and axes of the human body | Built-in presence | Oral and written participation |
| 6 | 2 | Learn and acquire analytical concepts | Steps in kinetic analysis | Built-in presence | Oral and written participation |
| 7 | 2 | Learn and acquire analytical concepts | Levels of kinetic analysis | Built-in presence | Oral and written participation |
| 8 | 2 | Learn and acquire analytical concepts | Forces acting on motion External forces | Built-in presence | Oral and written participation |
| 9 | 2 | Learn and acquire analytical concepts | Internal forces | Built-in presence | Oral and written participation |
| 10 | 2 | Learn and acquire analytical concepts | How forces affect motion | Built-in presence | Oral and written participation |
| 11 | 2 | Learn and acquire analytical concepts | Some mechanical foundations and laws in the analysis of movements | Built-in presence | Oral and written participation |
| 12 | 2 | Learn and acquire analytical concepts | Factors that must be available before starting the kinetic analysis process | Built-in presence | Oral and written participation |

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| 13 | 2 | Learn and acquire analytical concepts | Kinetic analysis steps | Built-in presence | Oral and written participation |
| 14 | 2 | Learn and acquire analytical concepts | Mechanical analysis of movements | Built-in presence | Oral and written participation |
| 15 | 2 | Student Performance Evaluation | Exams | Built-in presence | Oral and written participation |
| 16 | 2 | Student Performance Evaluation | Exams | Built-in presence | Oral and written participation |
| 17 | 2 | Learn and acquire analytical concepts | Observational analysis | Built-in presence | Oral and written participation |
| 18 | 2 | Learn and acquire analytical concepts | Programs and devices used in kinetic analysis | Built-in presence | Oral and written participation |
| 19 | 2 | Learn and acquire analytical concepts | Practical applications of some kinetic analysis programs (Kinove) | Built-in presence | Oral and written participation |
| 20 | 2 | Learn and acquire analytical concepts | Kinove Program | Built-in presence | Oral and written participation |
| 21 | 2 | Learn and acquire analytical concepts | kinove | Built-in presence | Oral and written participation |
| 22 | 2 | Learn and acquire analytical concepts | How angular variables are analyzed | Built-in presence | Oral and written participation |
| 23 | 2 | Learn and acquire analytical concepts | How distances are analyzed | Built-in presence | Oral and written participation |
| 24 | 2 | Learn and acquire analytical concepts | How is the time variable analyzed | Built-in presence | Oral and written participation |
| 25 | 2 | Learn and acquire analytical concepts | Secondary Exams | Built-in presence | Oral and written participation |
| 26 | 2 | Learn and acquire analytical concepts | How to analyze and interpret numerical values of motor performance | Built-in presence | Oral and written participation |
| 27 | 2 | Learn and acquire analytical | Magnus effect with the ball | Built-in presence | Oral and written participation |

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| | | concepts | | | |
| 28 | 2 | Learn and acquire analytical concepts | Classification of motor skills in terms of motor characteristics | Built-in presence | Oral and written participation |
| 29 | 2 | Learn and acquire analytical concepts | The right movements in our bodies | Built-in presence | Oral and written participation |
| 30 | 2 | Evaluation of the student's cognitive performance | examination | Built-in presence | Oral and written participation |

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| 12. Infrastructure | |
| <ul style="list-style-type: none"> ▪ Basic texts ▪ Course Books ▪ Other | : Required readings (Kinetic analysis (Najah Mahdi Shalash (Biomechanics in sports movements (Hussein Mardan Biomechanics and Sports |
| Special requirements (including e.g. workshops, periodicals, software, websites) | Workshop in the analysis of sports movements Workshop in modern software for kinetic analysis Kinetic analysis using ABAS software |
| Social services (e.g. guest lectures, vocational training and field studies) | Awareness lectures in the field of kinetic analysis |

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| 13. Acceptance | |
| Prerequisites | There isn't any |
| Minimum number of students | 150 |
| The largest number of students | 250 |