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|  |  TÉCNICO SUPERIOR UNIVERSITARIO EN TERAPIA FÍSICA EN COMPETENCIAS PROFESIONALES  |  |

**DESCRIPTIVE STATISTICS**

*LEARNING UNITS*

|  |  |
| --- | --- |
| 1. **Competencies**
 | Integrate therapeutic treatment, through the initial assessment, planning, execution and evaluation of massage and electrotherapy techniques, for rehabilitation and improvement in the quality of life of the user. |
| 1. **Term**
 | Second |
| 1. **Theoretical Hours**
 | 21 |
| 1. **Practical Hours**
 | 24 |
| 1. **Total Hours**
 | 45 |
| 1. **Hours per week**
 | 3 |
| 1. **Learning objective**
 | The student will determine the behavior of administrative variables, through the use of statistical methods to solve problems and contribute to the decision making of health and welfare centers |

|  |  |
| --- | --- |
| *LEARNING UNITS* | **hours** |
| **Theory** | **Practice** | **Total** |
| Descriptive statistics | 15 | 15 | 30 |
| Statistical software | 6 | 9 | 15 |
| **Total** | **21** | **24** | **45** |
|  |  |  |  |

**Descriptive statistics**

***LEARNING UNITS***

|  |  |
| --- | --- |
| 1. **Learning Unit**
 | **Descriptive statistics** |
| 1. **Theoretical Hours**
 | 15 |
| 1. **Practical Hours**
 | 15 |
| 1. **Total Hours**
 | 30 |
| 1. **Learning Unit**

**Objective** | The student will analyze statistical data to determine administrative information of health and welfare centers |

| **Topics** | **Knowledge** | **Skills** | **Behavior** |
| --- | --- | --- | --- |
| Introduction to statistics | Explain the concept of statistics.Describe the classification and uses of statistics:- Descriptive.- Inferential.Describe the concepts and types of:-sample, Population, variables.-Grouped and non-grouped dataIdentify the importance of statistics in the administration of health centers. | Determine size and type of samples. | HonestyResponsibility analytical capacityObjectivityProfessional ethicsOrganized |
| Data analysis  | Explain the concepts and formulas of: Measures of central tendency. - Mean - Median - Mode Measures of dispersion –Range - Variance - Standard deviation | Determine the measures of central tendency and dispersion in a data set |  Organized Systematic Analytical Capacity to work under pressure |
| Organization of data | Identify the characteristics and structure of a frequency distribution table. Describe the types of graphics, uses and applications in the administration of health and wellness centers. –Dispersal chart -Bar graph. -Polygon of frequencies. - Pie chart - Ogive  | Graph frequency distribution tables with data from health and wellness centers |  Organized Systematic Analytical Capacity to work under pressure Critical |

**Descriptive statistics**

 *EVALUATION PROCESS*

|  |  |  |
| --- | --- | --- |
| **Learning outcome** | **Learning sequence** | **Instruments** **Of Evaluation**  |
| From the analysis of a series of data from health and welfare centers, the student will submit a report that contains: -The frequency distribution table -Graphics with the physical representation of the data -Calculation of Media, Medium and Fashion -Calculation of the range, variance and standard deviation -Interpretation of the results for the explanation of the behavior of the data. | 1. Identify the basic concepts of statistics. 2. Understand the procedure for calculating the central tendency and dispersion measures. 3. Identify the characteristics and structure of a frequency distribution table. 4. Understand the application and drawing graphics. 5. Interpret the result of the statistical calculations. | Practical exercises.Checklist |

**DESCRIPTIVE STATISTICS**

TEACHING - LEARNING PROCESS

|  |  |
| --- | --- |
| **Teaching methods and techniques** | **Teaching media and materials** |
| Problem solving. Practical exercises. Collaborative teams | Whiteboard. Computer and Projector Printed media Computer lab Data base |

 *TRAINING SPACE*

|  |  |  |
| --- | --- | --- |
| **Classroom**  | **Laboratory / Workshop** | **Company** |
| **X** |  |  |

**Descriptive statistics**

***LEARNING UNITS***

|  |  |
| --- | --- |
| 1. **Learning Unit**
 | **Statistical Software** |
| 1. **Theoretical Hours**
 | 6 |
| 1. **Practical Hours**
 | 9 |
| 1. **Total Hours**
 | 15 |
| 1. **Learning Unit**

**Objective** | The student will calculate statistical information in specialized software to identify the behavior of data in health and welfare centers. |

| **Topics** | **Knowledge** | **Skills** | **Behavior** |
| --- | --- | --- | --- |
| Main Menu and Statistical Software Toolbars | Identify the work environment of software specialized in Statistics. Describe the advantages and uses of specialized statistical software | Prepare data files, dialog boxes, save, results viewer, windows using SPSS software | OrganizedSystematicAnalyticalCapacity to work under pressure |
| Descriptive statistics and graphs in Statistical software. | Identify the sequence of instructions in obtaining frequency statistics: measures of central tendency and measures of dispersion.Identify the sequence of instructions in the edition a graph. | Obtain frequency statistics: measures of central tendency and measures of dispersion, using statistical software.Draw bar and scatter charts using specialized statistical software. | Organized Systematic Analytical Capacity to work under pressure Critical |

**Descriptive statistics**

 *EVALUATION PROCESS*

|  |  |  |
| --- | --- | --- |
| **Learning outcome** | **Learning sequence** | **Instruments** **Of Evaluation**  |
| From the analysis of a series of data of the tourist activity, the student will turn in a report that contains:- Frequency statistics (measures of central tendency, and measures of dispersion) in statistical software-Bar graph and scatter charts in statistical software-Interpretation of the obtained results. | 1. Understand the advantages and uses of statistical software.2. Identify the work environment of the statistical software.3. Analyze the sequence of instructions to perform calculations of descriptive statistics and graphs. | Practical exercises.Checklist. |

**DESCRIPTIVE STATISTICS**

TEACHING - LEARNING PROCESS

|  |  |
| --- | --- |
| **Teaching methods and techniques** | **Teaching media and materials** |
| Problem solving. Practical exercises. Learning aided by information technology | Computer equipment, Stationery, Printed material, Internet, Projector, Databases Statistical software. |

 *TRAINING SPACE*

|  |  |  |
| --- | --- | --- |
| **Classroom**  | **Laboratory / Workshop** | **Company** |
|  | **X** |  |

**DESCRIPTIVE STATISTICS**

CAPACITIES DERIVED FROM THE PROFESSIONAL COMPETENCES WHICH CONTRIBUTES TO THE COURSE

| **Capacity** | **Performance Criteria** |
| --- | --- |
| Determine the therapeutic treatment through the selection and programming of therapeutic techniques, area, equipment, work material, human resources and scheduling, which contributes to the evolution of the user's f health and their well-being. | Prepare a treatment protocol, which will be integrated into the therapeutic record, which includes:      - Schedule of sessions per treatment      - Place or work area      - Technique (s) to be used      - Therapeutic contraindications      -Risks and complications     - List of material and equipment to be used according to        the applicable regulations      - Projection of the evolution of the user      - Responsible therapist and specialty. |
| To develop therapeutic treatment through massage and electrotherapy techniques, to contribute to relaxation, blood circulation and pain management. | Carry out the massage and electrotherapy techniques according to the established protocol: Facilities, equipment and supplies to be used, Time, Temperature; indications, contraindications and benefits for the user.Make a report of the application of the treatment, which will be integrated into the therapeutic file, which includes: - Date, time and session number * Treatment specifying the techniques used for massage therapy and electrotherapy
* Advances of the treatment
* Observations:
* Reaction or affectation    -
* Follow-up suggestions and medical reevaluation –
* Responsible therapist and special
 |
| Evaluate the evolution and satisfaction of the user through the analysis of the results, to suggest adjustments to the therapeutic treatment and to contribute to the achievement of the therapeutic objectives. | Prepare a report of results that will be integrated into the therapeutic file, including:- Compliance with scheduled activities- Equipment used - Applied techniques  Compliance with hygiene and safety regulations- Degree of user evolution - Degree of user satisfaction - Conclusions of the treatment - Observations and proposal of Adaptation to treatment. |

**DESCRIPTIVE STATISTICS**

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