Second Stage/ Geological Statistics G230

# **Course Description Form**

The course description provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, demonstrating whether he has made maximum use of the available learning opportunities.

| 1.Educational Institution                      | College of Science/ University of Basrah |  |
|--|--|--|
| 2. Department                                  | Geology                                  |  |
| 3. Course name/Code 1. Programs included in it | Geological Statistics / G230             |  |
| 4. Programs included in                        | Bachelor                                 |  |
| 5. Attendance Form Available                   | Weekly                                   |  |
| 6. Semester/Year                               | 2020-2019                                |  |
| 7. Total of study hours                        | 30 hours                                 |  |
| 8. The course description was                  | prepared in <mark>01/08/2020</mark>      |  |
| 9. Aims of the Course                          |  |  |

Primary knowledge of the second stage students to understand the fundamentals of applicative statistical parameters in Geology sectors. The principles of statistics, classification of data, type of statistics, descriptive statistics and a little

of inferential statistics. The aim is that the student should have enough background of statistic after graduation.

10. Course outcomes and methods of teaching, learning and assessment

#### a- Knowledge and Understanding goals

- a.1. Understanding what is statistics.
- a.2. Classification of data
- a.3. Presentation of data
- a.4. Types of Statistics.
- a.5. Descriptive Statistics.
- a.6. Inferential Statistics.

b- Subjective- Specific Skills

b.1.Abbility to applicate the Statistics parameters in geology.

b.2. Assist the students to apply in other fields.

#### Learning Methods

- 1. Present the lectures in class.
- 2. Example discussion and exercise.
- 3. Exam the students and quiz in class, then share the solutions.

# **Evaluating Methods**

- 1- Weekly quiz.
- 2- Monthly exam.
- 3- Seasonal final exam.
- C- Emotional and evolutional goals

1. Understanding the course and capability to applicate it.

## Learning Methods

- 1. Present the lectures in class.
- 2. Example discussion and exercise.
- 3. Exam the students and quiz in class, then share the solutions.

d- General qualification skills transferred (other skills related to employability and personality development)

1. Mathematical background development.

2. Mathematical skills refresh.

3. Encourage to applicate the computer softwares.

4.

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, demonstrating whether he has made the most of the available learning opportunities. It must be linked to the description of the program.

| Week            | Hours | Unit name   | Course<br>Outcomes   | Learning<br>method  | Evaluation<br>method          |
|-----------------|-------|---|--|---------------------|-------------------------------|
| 1 <sup>st</sup> | 2     | Theoretical:<br>General introduction and<br>definitions               | Understand<br>ing the<br>introductio<br>n and<br>concepts. | Lecture in class    | Daily and<br>monthly<br>tests |
| 2 <sup>nd</sup> | 2     | Theoretical:<br>Data classification<br>Data presentation methods      | Easily to<br>recognize<br>the data<br>types.               | Lecture in class    | Daily and<br>monthly<br>tests |
| 3 <sup>rd</sup> | 2     | Theoretical:<br>Descriptive statistics.<br>Measure of tendency        | Learning<br>how<br>applicate<br>the<br>measures.           | Lecture in<br>class | Daily and<br>monthly<br>tests |
| 4 <sup>th</sup> | 2     | Theoretical:<br>Measure of variability.<br>Relative positions of data | Learning<br>how<br>applicate<br>the<br>measures.           | Lecture in<br>class | Daily and<br>monthly<br>tests |
| 5 <sup>th</sup> | 2     | Theoretical:<br>Inferential statistics.<br>Probability fundamentals   | Learning<br>how<br>applicate it.                           | Lecture in class    | Daily and<br>monthly<br>tests |
| 6 <sup>th</sup> | 2     | Theoretical:<br>Probability hypotheses with<br>presented examples.    | Learning<br>how<br>applicate it.                           | Lecture in class    | Daily and<br>monthly<br>tests |
| 7 <sup>th</sup> | 2     | Theoretical:<br>Normal distribution.                                  | Learning<br>how<br>applicate it.                           | Lecture in class    | Daily and<br>monthly<br>tests |
| 8 <sup>th</sup> | 2     | Theoretical:<br>Correlation and Regression                            | Learning<br>how<br>applicate it.                           | Lecture in class    | Daily and<br>monthly<br>tests |

#### 1. Sequencing of course content

| 11. Infrastructure                   |  |  |  |  |
|--------------------------------------|--|--|--|--|
| 1- Textbooks required for the course | Lectures prepared.   |  |  |  |
| 2 References                         | Beginning Statistics. Version 1.0.   |  |  |  |
| Recommended readings                 | Any publication covers the statical<br>applications. Case studies and papers<br>adopted the statics to study the geological<br>fields. This will give direct and simplest<br>understanding of the tool and specialization.<br>NA |  |  |  |
| Electronic website                   |  |  |  |  |

## 12. Course Development Plan

- The course was updated using the worldwide publications collected from internet and reference textbooks last years and will continue to add extra and replace the contents by simplest way and more beneficial / effective to the students.
- Trying to include the softwares of statistics applications within the course where it considers applicable class. The aim to simplify it as much as possible.

- Planning to encourage the students to adopt the statists applications when they have been assigned to complete the graduation project in the last stage of study.