

Ministry of Higher Education and Scientific Research

Supervision and Scientific Evaluation Body

Department of Quality Assurance and Academic Accreditation



### Course Description Form

<b>Description Course</b>	<b>OPERATIONAL RESEARCH</b>
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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 maximum use of the available learning opportunities. These characteristics have to be matched with the description of the program.

1. Educational Institution	<b>Shatt Al-Arab University College</b> 
2. Department / Center	<b>Business Administration</b>
3. Course Title /Code	<b>Operational Research BA 315</b>
4. Lecturer Operational Research	M A TAHIR
5. Type of Teaching	Attendance Class
6. Academic Year /Term	First Semester – Stage ( 3 )
7. Total No. of Teaching Hours	45

8. Date of Preparing this Course  
Description

2-10-2022

### 9. Course Objectives

<b>a. Providing students with the most important principles and basics of (Operational Research)</b>
<b>b. Teaching students how to apply (Operational Research)</b>
<b>c. Providing graduates with the necessary knowledge on (Operational Research)</b>
<b>d. Improving the administrative skills in the field of (Operational Research)</b>
<b>e. Providing graduates with the skills of education and creative learning.</b>

### 10. Course Output, Methodology and Evaluation

#### (A) Cognitive Objectives

<b>a. Enabling students to acquire knowledge and the art of (Operational Research)</b>
<b>b. Acquainting students with how to promote their personal knowledge.</b>
<b>c. Helping students to acquire knowledge in the art of (Operational Research)</b>
<b>d. Enabling students to sharpen their skills in the dynamic work environment.</b>
<b>e. Enabling students to invest their scientific abilities in their working place in the scope of (Operational Research)</b>
<b>f. Helping students to get the necessary knowledge to solve problems (Operational Research)</b>

**(B) Skill Objectives Related to the Program:**

<b>a. Scientific Skills</b>
<b>b. Leadership Skills</b>
<b>c. Skills Related to Administrative Work Challenges</b>

## Methods of Teaching and Learning

<b>a. Using already- prepared lectures.</b>
<b>b. Using up-to-date data shows.</b>
<b>c. Homework</b>
<b>d. Adopting group discussions.</b>

## Methods of Evaluation

<b>a. Oral tests</b>
<b>b. Monthly tests</b>
<b>c. Daily quizzes</b>
<b>d. Students' Regular Attendance</b>

## (C) Sentimental and Value Objectives

<b>a. Realizing ethical objectives.</b>
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<b>b. Commitment to university traditions.</b>
<b>c. Compliance with the University Instructions and the Ministry Regulations.</b>
<b>d. Promoting students' personal abilities in educational scopes and how to behave well with others.</b>

### Methods of Teaching and Learning

<b>a. Lectures on university instructions.</b>
<b>b. Educational guidance lectures.</b>
<b>c. Continuous directing.</b>
<b>d. Visiting State and private institutions.</b>
<b>e. Showing practical cases.</b>

### Methods of Evaluation

<b>a. Daily quizzes.</b>
<b>b. Classroom discussions and commitment to ethics and sublime values.</b>

**c. Special marks for class activities.**

**d. Monthly and quarterly evaluation.**

**D) General and Qualitative Skills (other skills related to the ability of employment and personal development)**

**a. Enabling students to acquire the skill and art of (Operational Research)**

**b. Enabling students to apply creative thinking in (Operational Research)**

**c. Enabling students to use modern methods of analysis and conclusions.**

**d. Enabling students on (Operational Research)**

**11. Course Structure**

<b>Week</b>	<b>No of Hours</b>	<b>Required Learning Output</b>	<b>Title of Subject</b>	<b>Teaching Method</b>	<b>Evaluation</b>
1	3	student understands the subject	Introduction	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
2	3	student understands the subject	Formulation of Linear Programming model	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
3	3	student understands the subject	Form of Linear Programming	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
4	3	student understands the subject	Graphical method for solving Linear Programming problems	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
5	3	student understands the subject	Graphical method for solving Linear Programming problems	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>

6	3	student understands the subject	Simplex method for solving Linear Programming problems	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
7	3	student understands the subject	Simplex method for solving Linear Programming problems	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
8	3	student understands the subject	Transportation Models	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
9	3	student understands the subject	Transportation Models	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
10	3	student understands the subject	Assignment	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> <li>-discussions</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>
11	3	student understands the subject	CPM	<ul style="list-style-type: none"> <li>- lectures</li> <li>- case study</li> </ul>	<ul style="list-style-type: none"> <li>- oral tests</li> <li>-questions</li> </ul>



				<b>-discussions</b>	
<b>12</b>		<b>student understands the subject</b>	<b>PERT</b>	<b>- lectures - case study -discussions</b>	<b>- oral tests -questions</b>
<b>13</b>		<b>student understands the subject</b>	<b>Game Theory</b>	<b>- lectures - case study -discussions</b>	<b>- oral tests -questions</b>
<b>14</b>		<b>student understands the subject</b>	<b>Game Theory</b>	<b>- lectures - case study -discussions</b>	<b>- oral tests -questions</b>
<b>15</b>		<b>student understands the subject</b>	<b>Queuing Theory</b>	<b>- lectures - case study -discussions</b>	<b>- oral tests -questions</b>

## 12. Infrastructure

<b>a. Textbooks</b>	<b>Operational research by M A TAHIR</b>
<b>b. References</b>	<b>Operations Research by H TAHA</b>
<b>c. Recommended books and periodicals (journals, reports, etc.)</b>	
<b>d. Electronic references, internet websites, etc</b>	

## 13. The Plan of Improving the Course

<b>a. Studying labor market needs.</b>
<b>b. Be informed of the experiences of other countries in the field of (Operational Research)</b>
<b>c. Be informed of research work published in national and international journals in the field of Principles of (Operational Research)</b>