**Course Description Form**

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| 1. Course Name:
 |
| Operation Research  |
| 1. Course Code:
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|  |
| 1. Semester / Year:
 |
| 2nd/second years |
| 1. Description Preparation Date:
 |
|  |
| 1. Available Attendance Forms:
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|  |
| 1. Number of Credit Hours (Total) / Number of Units (Total)
 |
|  |
| 1. Course administrator's name (mention all, if more than one name)
 |
| Name: Abdul Hassan Rahim Email: : abdulhassanrahim@sa-su-edu-iq |
| 1. Course Objectives : Learn about scientific research methods
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| **Course Objectives** | **Enable the student to benefit from** **scientific research in planning and** **decision-making processes** |
| 1. Teaching and Learning Strategies
 |
| **Strategy** |  |
| 1. Course Structure
 |
| **Week**  | **Hours**  | **Required Learning Outcomes**  | **Unit or subject name**  | **Learning method**  | **Evaluation method**  |
| **1** | **2** | Understanding the material | Introduction | Lectures Case studyDiscussions  | oral test questions |
| **2** | **2** | Understanding the material | Linear Programming L.P | Lectures Case studyDiscussions  | oral test questions |
| **3** | **2** | Understanding the material | Linear Programming Model | Lectures Case studyDiscussions  | oral test questions |
| **4** | **2** | Understanding the material | Examples | Lectures Case studyDiscussions  | oral test questions |
| **5** | **2** | Understanding the material |  Graphic Method  | Lectures Case studyDiscussions  | oral test questions |
| **6** | **2** | Understanding the material | Examples | Lectures Case studyDiscussions  | oral test questions |
| **7** | **2** | Understanding the material | Simplified Method | Lectures Case studyDiscussions  | oral test questions |
| **8** | **2** | Understanding the material | Examples | Lectures Case studyDiscussions  | oral test questions |
| **9** | **2** | Understanding the material | Duality in linear programming | Lectures Case studyDiscussions  | oral test questions |
| **10** | **2** | Understanding the material | Transfer form | Lectures Case studyDiscussions  | oral test questions |
| **11** | **2** | Understanding the material | Customization form | Lectures Case studyDiscussions  | oral test questions |
| **12** | **2** | Understanding the material | Special cases  | Lectures Case studyDiscussions  | oral test questions |
| **13** | **2** | Understanding the material | Network diagram analysis  | Lectures Case studyDiscussions  | oral test questions |
| **14** | **2** | Understanding the material | Critical path | Lectures Case studyDiscussions  | oral test questions |
| **15** | **2** | Understanding the material | Game theory  | Lectures Case studyDiscussions  | oral test questions |
| 1. Course Evaluation
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| Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc  |
| 1. Learning and Teaching Resources
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| Required textbooks (curricular books, if any) |  |
| Main references (sources) |  |
| Recommended books and references (scientific journals, reports...) |  |
| Electronic References, Websites |  |

 **مدرس المادة توقيع رئيس القسم**

**عبد الحسن رحيم حمادي أ.م.د عبد الكريم عبد الغني**