**Course Description Form**

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| 1. Course Name: | | | | | | | | |
| Operation Research | | | | | | | | |
| 1. Course Code: | | | | | | | | |
|  | | | | | | | | |
| 1. Semester / Year: | | | | | | | | |
| 2nd/second years | | | | | | | | |
| 1. Description Preparation Date: | | | | | | | | |
|  | | | | | | | | |
| 1. Available Attendance Forms: | | | | | | | | |
|  | | | | | | | | |
| 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 | | | | | | | | |
| **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 study  Discussions | oral test  questions |
| **2** | **2** | | Understanding the material | | Linear Programming L.P | | Lectures  Case study  Discussions | oral test  questions |
| **3** | **2** | | Understanding the material | | Linear Programming Model | | Lectures  Case study  Discussions | oral test  questions |
| **4** | **2** | | Understanding the material | | Examples | | Lectures  Case study  Discussions | oral test  questions |
| **5** | **2** | | Understanding the material | | Graphic Method | | Lectures  Case study  Discussions | oral test  questions |
| **6** | **2** | | Understanding the material | | Examples | | Lectures  Case study  Discussions | oral test  questions |
| **7** | **2** | | Understanding the material | | Simplified Method | | Lectures  Case study  Discussions | oral test  questions |
| **8** | **2** | | Understanding the material | | Examples | | Lectures  Case study  Discussions | oral test  questions |
| **9** | **2** | | Understanding the material | | Duality in linear programming | | Lectures  Case study  Discussions | oral test  questions |
| **10** | **2** | | Understanding the material | | Transfer form | | Lectures  Case study  Discussions | oral test  questions |
| **11** | **2** | | Understanding the material | | Customization form | | Lectures  Case study  Discussions | oral test  questions |
| **12** | **2** | | Understanding the material | | Special cases | | Lectures  Case study  Discussions | oral test  questions |
| **13** | **2** | | Understanding the material | | Network diagram analysis | | Lectures  Case study  Discussions | oral test  questions |
| **14** | **2** | | Understanding the material | | Critical path | | Lectures  Case study  Discussions | oral test  questions |
| **15** | **2** | | Understanding the material | | Game theory | | Lectures  Case study  Discussions | oral test  questions |
| 1. Course Evaluation | | | | | | | | |
| 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 | | | | | | | | |
| 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**