



**Ministry of Higher Education and Scientific Research**

**Mustansiriyah University / College of Science / Department of Chemistry**

**(الخطة الدراسية للمساق)**

**Course Plan**

**Time Division:** 2hrs Theoretical

**Course Name: Petroleum Chemistry For 4th year students**

**Semester & Year: First, 2018 / 2019**

**Course Description:**

**The course describes the formation, chemistry and the chemical constituents of petroleum oil. The various methods of evaluations of petroleum and the manufacture of petroleum products such as Gasoline, Kerosene, Aviation fuels and lubricating oils.**

**Course Intended Outcomes:**

**Course Outline:**

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| --- | --- |
| **Week** | **Description depends on the Timing table (Theoretical)** |
| **1** | Historical background and theories of petroleum oil formation |
| **2** | Chemical constituents of petroleum oil |
| **3** | Chemical constituents of petroleum oil |
| **4** | Physical properties of petroleum oil and pretreatment processes |
| **5** | Manufacture of petroleum products and petroleum operations |
| **6** | Manufacture of petroleum products and petroleum operations |
| **7** | 1st test |
| **8** | Thermal cracking and catalytic cracking processes |
| **9** | Thermal cracking and catalytic cracking processes |
| **10** | Test methods of petroleum and petroleum products |
| **11** | Test methods of petroleum and petroleum products |
| **12** | Manufacture of lubricating oils |
| **13** | Manufacture of lubricating oils |
| **14** | Chemistry of lubricating oil additives |
| **15** | 2nd test |

**Textbooks:**

**[1] The chemistry and technology of petroleum, 4th ed., James G. Speight.**

**[2] Handbook of petroleum refining processes, 3rd. ed., Robert A. Meyers.**