

## المحتوى العلمي للمقرر:

- *Aryl Halides*
  - *Structure*
  - *Physical properties*
  - *Synthesis and reactions.*
  - *nucleophilic aromatic substitution*
- *Heterocyclic Compounds*
  - *Structure*
  - *Physical properties*
  - *Synthesis and reactions.*
- *Project*

## الكتب الأساسية:

**Heterocyclic Chemistry, J. A. Joule & G. F. Smith, 2000.**

## المرجع المساند:

**Heterocyclic chemistry, John Webster , 2007**