Course Specification

University/Academy: Damanhour University
Faculty/Institute: Faculty of Science
Department: Chemistry

1. Course Data:

<table>
<thead>
<tr>
<th>Course code:</th>
<th>Course title:</th>
<th>Academic year/level:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 304</td>
<td>Inorganic Chemistry 2</td>
<td>3rd year - 2nd term</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2009-2010</td>
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</tbody>
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Specialization: Special Chemistry
No. of instructional units:
- lecture 2
- tutorial 1
- practical 0

2. Course Aim

By the end of the course, students will be able to:
- Know about chemistry of transition elements (d-block elements).
- Explain the behavior of transition metals in different media.
- Discuss the general properties of transition metal series.

2. Intended learning outcome

Knowledge and understanding
The chemistry of transition elements
- List the behavior of transition metals in different media.
- Define the general properties of transition metal series.

Intellectual skills
On completing this course, students will be able to:
- Interpret the properties of transition metals depending on its electronic structure.
- Criticize to synthesize transition metal complexes.

Professional skills
By the end of the course, students will be able to:
- Mention between the properties of the transition metal and its uses.

a) General skills
By the end of the course, students will be able to:
- Use IT and web search.
- Examine Communication with lecturer and colleagues.
- Perform the relation between the properties and the uses.
### Course Content
- Introduction + definition of d-block elements
- General properties of 1st transition metal series
- Chemistry of important compounds
- General properties of 2nd, 3rd transition metal series
- Chemistry of Lanthanides
- Chemistry of Actinides

### Teaching and Learning Methods
- Lectures and seminars using data show and board.
- Assignment.
- Group tutorial.
- Reports.

### Teaching and Learning Methods for Students with Special Needs
- Computer hall to be used in visual labs and simulation experiments.
- Data show, overhead projector, Molecular models and chemistry computer programs.
- Changing to credit hours system, it is more effective.

### Student Assessment
- Mid term exam.
- Reports.
- Final term exam.

### Procedures Used:

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Assessment 1: Mid term exam</th>
<th>Week: 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assessment 2: Reports</td>
<td>Week: 5, 11, 14</td>
</tr>
<tr>
<td></td>
<td>Assessment 3: Final term exam</td>
<td>Week: 15</td>
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</table>

### Weighing of Assessment:

<table>
<thead>
<tr>
<th>Quizzes:</th>
<th>Mid-Term Examination:</th>
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<tbody>
<tr>
<td></td>
<td>Final-Term Examination: 100</td>
</tr>
<tr>
<td>Oral Examination:</td>
<td></td>
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<tr>
<td>Practical Examination:</td>
<td></td>
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<tr>
<td>Semester Work:</td>
<td></td>
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<tr>
<td>Other types of assessment:</td>
<td></td>
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</tbody>
</table>

| Total | 100 |

### List of Textbooks
## and References:

<table>
<thead>
<tr>
<th>Course Notes</th>
<th>Lecture notes of Inorganic Chemistry for 3rd year students - faculty of science – Damanhour University.</th>
</tr>
</thead>
</table>

### Required Books (Textbooks)


### Recommended Books


### Periodicals, web sites,….etc


## Course Instructor

**Dr. Alaa E. Ali**

**Date:** 20 / 9 / 2008

## Head of Department

**Dr. Medhat A. Shaker**