# Course Specifications

**Programme(s) on which the course is given: B.Sc. (Geology, Chemistry and Geology, Physics and Geology).**
**Major or Minor element of programmes: Major in Geology, and Minor in Physics and Geology, Chemistry and Geology).**
**Department offering the programme: Geology**
**Department offering the course: Geology**
**Academic year / Level: 00/ 2**
**Date of specification approval:**

## a- Basic Information

**Title: Micropaleontology**
**Code: G222**

**Credit Hours: 3 Credit**
**Lecture: 1½ Credit Hour**

**Prerequisite: G121** **Practical: 3 Hours**
**Total: 3 Credit Hours**

## b- Professional Information

### 1 – Overall Aims of Course

- **Micropaleontology is concerned with microfossil groups in terms of taxonomy, ecology, morphology, structure, shells-chemical composition, life history, stratigraphic position, and application in the oil industry and environmental issues**

### 2 – Intended Learning Outcomes of Course (ILOs)

**a- Knowledge and Understanding: By the end of this course, the student should be able to:**

**a1- Describe the various groups of microfossils.**

**a2- Differentiate between the different kinds of foraminifera.**

**a3- Understand the importance and application of foraminifera.**

**b- Intellectual Skills: By the end of this course, the student should be able to:**

**b1- Understand how each of these microfossil live today and how they adapt themselves with the surrounding environments**

**b2- How foraminifera can be used as a tool for environmental inferences**

**b3- Solve a problem in the geologic record by using both benthic and planktonic foraminifera**

**c- Professional and Practical Skills: By the end of this course, the student should be able to:**

**c1- Draw the studied microfossils in paper-sheets (Atlas)**

**c2- Identify and describe each of foraminiferal groups**

**c3- Determine the stratigraphic range of each superfamily of foraminifera**

**d- General and Transferable Skills: By the end of this course, the student should be able to:**

**d1- Describe of both benthic and planktonic foraminifera.**

**d2- Work as member of the team to describe and classify the micro-fossils.**

**d3- Apply of the microfossil groups in oil industry and environment.**

## 3. Contents

| Topic | Cre | Lect | Tuto |
|---|---|---|---|

| | dit hou rs | ure | rial/ Prac tical |
|---|---|---|---|
| **Introduction about the microfossils groups** | **3** | **1½** | **3** |
| **Foraminifera life style, wall structure** | **6** | **3** | **6** |
| **Planktonic foraminifera and their modern distribution in the ocean water).** | **6** | **3** | **6** |
| **Foraminiferal history** | **3** | **1½** | **3** |
| **Foraminiferal application in stratigraphy** | **9** | **4½** | **9** |
| **Ostracods morphology and composition** | **6** | **3** | **6** |
| **Ostracods distribution and ecology** | **3** | **1½** | **3** |
| **Ostracods classification and application.** | **6** | **3** | **6** |
| **Total** | **42** | **21** | **42** |

**4 – Teaching and Learning Methods**

**4.1- lectures.**

**4.2- lab. Practical**

**5- Student Assessment Methods**

**5.1-regular verbal and written exam. to assess a1-a3, b1-b3**

**5.2-mid-term exam to assess a1-a3, b1-b3, c1-c3**

**5.3-at the end of term exam to assess a1-a3, b1-b3, c1-c3**

**5.4-reports, discussion and practical to assess d1-d3**

**Assessment Schedule**

**Assessment 1: short exam (class activities)**
**every two weeks.**
**Assessment 2 :mid-term (written and practical)**
**week 7.**
**Assessment 3: final-term (written and practical)**
**week 15-16**
**Assessment 4……. Week …….**

**Weighting of Assessments**

| | Written | Practical |
|---|---|---|
| **Mid-Term Examination:** | **20%** | **20%** |
| **Written Final-term Examination:** | **60%** | **60%** |
| **Semester Work (including reports, oral and discussion):** | **20%** | **20%** |
| **Total:** | **100%** | **100%** |

**6- List of References**

**6.1- Course Notes:**

**6.2- Essential Books (Text Books):**

**Orabi Hussein Orabi: Published book**

**6.3- Recommended Books**

**Loeblich and Tappan 1989. Treates of foraminifera**
**Brasier, M.d. 1980. Microfossils. George Allen and Unwin LTD, London, 193 pp.**

**6.4- Periodicals, Web Sites, … etc**

**Journal of paleontology**

**7- Facilities Required for Teaching and Learning**

**Data show, Binocular microscopes, micro-slides.**

**Course Coordinator: Prof. Orabi Hussein Orabi**

**Head of Department: Prof. Ahmed Al-Boghdady**

**Date: / / 2012**