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| **King Saud University**  **College of Sciences**  **Geology and Geophysics Department** |  | **جامعة الملك سعود**  **كلية العلوم**  **قسم الجيولوجياوالجيوفيزياء** |

**Geo 243: Invertebrate Paleontology 3 (2+1)**

**Instructor:** Prof. Abdelbaset El-Sorogy

**Contributor:**

**Room:** 1b59

**Office Hours:**

Monday: 10:00 Am - 12:00 Am

Tuesday: 10:00 Am - 12:00 Am

Wednesday: 10:00 Am - 12:00 Am

Thursday: 10:00 Am - 12:00 Am

**Syllabus:**

Introduction – conditions and processes of fossilization – types of preservation – the fossil record – index fossils – biological classification – study of the most important invertebrate phyla: sponges, corals, coelenterates, mollusks, echinoderms, brachiopods, annelids, arthropods and graptolites – trace fossils. (One day field trip).

**Geo 243: Invertebrate Paleontology 3(2+1)**

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| **Topic** | **No of**  **Weeks** | **No of**  **hours** |
| Introduction | **1** | **2** |
| Conditions and processes of fossilization | **1** | **2** |
| Types of preservation | **1** | **2** |
| Fossil record – index fossils | **1** | **2** |
| Biological classification | **1** | **2** |
| Sponges | **1** | **2** |
| Coelenterates | **1** | **2** |
| Mollusks | **3** | **6** |
| Echinoderms | **1** | **2** |
| Brachiopods | **1** | **2** |
| Annelids | **1** | **2** |
| Arthropods and graptolites | **1** | **2** |
| Trace fossils | **1** | **2** |

**Evaluation (100 marks):**

First test (quiz): 4th week, 10 marks

Second test (quiz): 8th week, 10 marks

Practical exam: 14th week, 30 marks

Semester activities: 10 marks

Final exam: 40 marks

**Reference Books for Geo 243:**

Boardman, R. S., A. H. Cheetham and A. J. Rowell. (1987): Fossil Invertebrates.- Blackwell Scientific Publications, 713p.

Clarkson, E. N. K. (1979): Invertebrate Paleontology and Evolution.- George Allen & Unwin. (1st Ed.).

Clarkson, E. N. K. (1994): Invertebrate Paleontology and Evolution.- George Allen & Unwin. (3rd Ed.).

Dodd, J. R. and R.J. Stanton (1990): Paleoecology: Concepts and applications.- Wiley Interscience. (2nd ed.).

Moore, R. C. (1969): Treatise on Invertebrate Paleontology, Part N: Mollusca 6, Bivalvia (Vol. 3). Geological Society of America. p. 275. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [10: 0813730260](http://en.wikipedia.org/wiki/Special:BookSources/10:_0813730260).

Ruppert, E. E., Fox, R. S., and Barnes, R. D. (2004): Annelida. Invertebrate Zoology (7 ed.). Brooks / Cole. pp. 414–420. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-03-025982-7](http://en.wikipedia.org/wiki/Special:BookSources/0-03-025982-7).

Ruppert, E. E., Fox, R. S., and Barnes, R. D. (2004): Lophoporata. Invertebrate Zoology (7 ed.). Brooks / Cole. pp. 829–845. [ISBN](http://en.wikipedia.org/wiki/International_Standard_Book_Number) [0-03-025982-7](http://en.wikipedia.org/wiki/Special:BookSources/0-03-025982-7).

Ziegler, E. (1980): Einfuehrung in die Palaeontologie. Teil 1. Allgemine Palaeontologie.- Schweizerbart`sche Verlagsbuchhandlung. Stuttgart.