

## Course Description Form

|                                                                                                                  |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
|------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------|
| 1. Course Name:                                                                                                  |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| Microfossils                                                                                                     |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 2. Course Code:                                                                                                  |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
|                                                                                                                  |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 3. Semester / Year:                                                                                              |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| Semester                                                                                                         |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 4. Description Preparation Date:                                                                                 |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 30/3/2024                                                                                                        |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 5. Available Attendance Forms:                                                                                   |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| Only attendance                                                                                                  |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 6. Number of Credit Hours (Total) / Number of Units (Total)                                                      |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 60hours                                                                                                          |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 7. Course administrator's name (mention all, if more than one name)                                              |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| Name: Esraa A. Mandhour<br>Email: <a href="mailto:esra.mandhour@sci.utq.edu.iq">esra.mandhour@sci.utq.edu.iq</a> |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 8. Course Objectives                                                                                             |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| <b>Course Objectives</b>                                                                                         |              |                                                                                                                                         | Understanding microfossils and the evolution of organisms through the geological time scale, relations of organisms with living environment |                            |                                             |
| 9. Teaching and Learning Strategies                                                                              |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| <b>Strategy</b>                                                                                                  |              | 1- Educational strategy, collaborative conce<br>planning.<br>2- Brainstorming education strategy.<br>3- Education Strategy Notes Series |                                                                                                                                             |                            |                                             |
| 10. Course Structure                                                                                             |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| <b>W<br/>e<br/>e<br/>k</b>                                                                                       | <b>Hours</b> | <b>Required Learning<br/>Outcomes</b>                                                                                                   | <b>Unit or subject<br/>name</b>                                                                                                             | <b>Learning<br/>method</b> | <b>Eva<br/>luati<br/>on<br/>met<br/>hod</b> |
| 1                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 2                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 3                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 4                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 5                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 6                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |
| 7                                                                                                                |              |                                                                                                                                         |                                                                                                                                             |                            |                                             |

|                                                                                                                                                                                          |                       |                                        |                                                                                                                                                                            |                     |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|
| 8                                                                                                                                                                                        |                       |                                        |                                                                                                                                                                            |                     |                    |
| 9                                                                                                                                                                                        |                       |                                        |                                                                                                                                                                            |                     |                    |
| 10                                                                                                                                                                                       |                       |                                        |                                                                                                                                                                            |                     |                    |
| 11                                                                                                                                                                                       |                       |                                        |                                                                                                                                                                            |                     |                    |
| 12                                                                                                                                                                                       |                       |                                        |                                                                                                                                                                            |                     |                    |
| 13                                                                                                                                                                                       |                       |                                        |                                                                                                                                                                            |                     |                    |
| 14                                                                                                                                                                                       |                       |                                        |                                                                                                                                                                            |                     |                    |
| 15                                                                                                                                                                                       |                       |                                        |                                                                                                                                                                            |                     |                    |
| Holi                                                                                                                                                                                     |                       |                                        |                                                                                                                                                                            |                     |                    |
| 16                                                                                                                                                                                       | 2theoretical+2practic |                                        | 1- Introduction of microfo                                                                                                                                                 | Explaining theoret  | Exams              |
| 17                                                                                                                                                                                       | 1                     |                                        | 2- Chamber shapes                                                                                                                                                          | and practical mate  | through            |
| 18                                                                                                                                                                                       | 2theoretical+2practic |                                        | organism growth                                                                                                                                                            | through lectures, u | means of illustrat |
| 19                                                                                                                                                                                       | 1                     | 1- The student's knowledge of          | nutrition                                                                                                                                                                  | and compa           | weekly             |
| 20                                                                                                                                                                                       | 2theoretical+2practic | theoretical and practical concepts     | 3-Foraminifera environm                                                                                                                                                    | microfossils        | quick              |
| 21                                                                                                                                                                                       | 1                     | microfossils.                          | 4- large Foraminifera                                                                                                                                                      | understand evolutio | exams,             |
| 22                                                                                                                                                                                       | 2theoretical+2practic | 2- The student's knowledge of how to c | 5- Foraminifera classificat                                                                                                                                                |                     | monthly            |
| 23                                                                                                                                                                                       | 1                     | out field modeling of samples.         | 6- Classification                                                                                                                                                          |                     | written            |
| 24                                                                                                                                                                                       | 2theoretical+2practic | 3- The student's knowledge of how      | Foraminifera and                                                                                                                                                           |                     | exams,             |
| 25                                                                                                                                                                                       | 1                     | prepare models for the purpose of stud | identification of so                                                                                                                                                       |                     | reports,           |
| 26                                                                                                                                                                                       | 2theoretical+2practic | them under the microscope.             | Foraminifera genera                                                                                                                                                        |                     | research           |
| 27                                                                                                                                                                                       | 1                     | 4- The student's knowledge of how to u |                                                                                                                                                                            |                     | and                |
| 28                                                                                                                                                                                       | 2theoretical+2practic | microscope for the purpose of exami    | <b>First exam</b>                                                                                                                                                          |                     | end-of-y           |
| 29                                                                                                                                                                                       | 1                     | fossils                                |                                                                                                                                                                            |                     | exam.              |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        | 8- Introduction                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        | Crustaceans - Ostracoda                                                                                                                                                    |                     |                    |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        | 9- Orientation of carapa                                                                                                                                                   |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        | 10- Ornamentation                                                                                                                                                          |                     |                    |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        | 11- Ostracoda environm                                                                                                                                                     |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        | 12- Ostracoda classificati                                                                                                                                                 |                     |                    |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        | 13- Ostracoda classificati                                                                                                                                                 |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        | <b>Second exam</b>                                                                                                                                                         |                     |                    |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        |                                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        |                                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        |                                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        |                                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | 2theoretical+2practic |                                        |                                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | 1                     |                                        |                                                                                                                                                                            |                     |                    |
|                                                                                                                                                                                          | exam                  |                                        |                                                                                                                                                                            |                     |                    |
| <b>11. Course Evaluation</b>                                                                                                                                                             |                       |                                        |                                                                                                                                                                            |                     |                    |
| The distribution of grades is as follows: 35 marks for monthly and daily exams and reports for the theoretical aspect and 15 marks for monthly and daily exams for the practical aspect. |                       |                                        |                                                                                                                                                                            |                     |                    |
| <b>12. Learning and Teaching Resources</b>                                                                                                                                               |                       |                                        |                                                                                                                                                                            |                     |                    |
| Required textbooks (curricular books, if any)                                                                                                                                            |                       |                                        | المتحجرات، فاروق صنع الله العمري وطارق صالح عباوي، جامعة الموصل، 1982.                                                                                                     |                     |                    |
| Main references (sources)                                                                                                                                                                |                       |                                        | - Armstrong H. and Brasier M., 2005. Microfossils, Blachwell publishing, 305 p.<br>- - Moore R. C., 1979. Treatise on invertebr paleontology, University of Kansas, 594 p. |                     |                    |
| Recommended books and references (scientific journals, reports...)                                                                                                                       |                       |                                        | المتحجرات العضوية الدقيقة، ثامر خزعل العامري جامعة صلاح الدين، 1989.                                                                                                       |                     |                    |

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| Electronic References, Websites |  |
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