هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

# Course Specification

| | |
|---|---|
| Course Title: | Invertebrates |
| Course Code: | **ZooL251-3** |
| Program: | **B.Sc. Biology** |
| Department: | **Biology** |
| College: | **Science** |
| Institution: | **Faculty of Science, Jazan University** |
| Version: | *Course Specification Version Number* |
| Last Revision Date: | *Pick Revision Date.* |

# Table of Contents:

# A. General information about the course:

| Course Identification | | | | | |
|---|---|---|---|---|---|
| **1. Credit hours:** | 3 | | | | |
| **2. Course type** TEACHING | | | | | |
| a. | University ☒ | College ☐ | Department☐ | Track☐ | Others☐ |
| b. | Required ☒ | Elective☐ | | | |
| **3. Level/year at which this course is offered: 5th level/ 2nd year** | | | | | |
| **4. Course general Description** | | | | | |
| **5. Pre-requirements for this course (if any): None** | | | | | |
| **6. Co- requirements for this course (if any): None** | | | | | |
| **7. Course Main Objective(s)** | | | | | |

## 1. Teaching mode (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|---|---|---|---|
| 1. | Traditional classroom | 20/h | 90.9% |
| 2. | E-learning | | |
| 3. | Hybrid<br>• Traditional classroom<br>• E-learning | 2h | 9.1% |
| 4. | Distance learning | | |

## 2. Contact Hours (based on the academic semester)

| No | Activity | Contact Hours |
|---|---|---|
| 1. | Lectures | 22 |
| 2. | Laboratory/Studio | 22 |
| 3. | Field | |
| 4. | Tutorial | |
| 5. | Others (specify) | |
| | Total | 44 |

## B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

| Code | Course Learning Outcomes | Code of CLOs aligned with program | Teaching Strategies | Assessment Methods |
|---|---|---|---|---|
| 1.0 | Knowledge and understanding | | | |
| 1.1 | Define all principals, concepts, theories and aspects concerning with invertebrate | K1.1 | LECTURE | |
| 1.2 | Compare between different mechanisms, functions, practices and aspects related to invertebrate | K2.1 | LECTURE | |
| … | Draw all systems, organs, cells and its contents diagrams and figures of invertebrate | K2.3 | LECTURE | |
| 2.0 | Skills | | | |
| 2.1 | Examine theoretically or practically the sides, photos, diagrams or statements of invertebrate | S1.3 | LECTURE | |
| 2.2 | Write a report about any practical or theoretical tasks related to invertebrate | S3.3 | LECTURE | REASERCH |
| … | | | | |
| 3.0 | Values, autonomy, and responsibility | | | |
| 3.1 | Illustrate awareness of risk assessment and safety observation when dealing with various equipment at various fields. | V2.1 | LECTURE | LAB BOOK |
| 3.2 | | | | |
| ... | | | | |

## C. Course Content

| No | List of Topics | Contact Hours |
|---|---|---|
| 1. | **Terms and bases of classification of animal kingdom** | 1 |
| 2. | **Subkingdom: Protozoa** | 3 |
| 3 | **Subkingdom Parazoa: Phylum Porifera** | 2 |
| 4 | **Subkingdom Metazoa: PhylumCnidaria** | 2 |
| 5 | **Bilateria: Acoelomayes: Phylum Platyhelminthes** | 2 |
| 6 | **Coelomates: Pseudocoelomates: Phylum Nematoda** | 2 |
| 7 | **Eucoelomates: Phylum Annelida** | 2 |
| 8 | **Eucoelomates: Phylum Arthropoda** | 4 |
| 9 | **Eucoelomates: Phylum Mollusca** | 2 |
| 10 | **Eucoelomates: Phylum Echinodermata** | 2 |
| Total | | 22 |

## D. Students Assessment Activities

| No | Assessment Activities * | Assessment timing (in week no) | Percentage of Total Assessment Score |
|---|---|---|---|
| 1. | **Homework assignment** | 2 | 5 |
| 2. | **Practical quizzes** | 4 | 5 |
| 3. | **Lecture Quizzes** | 6 | 5 |
| 4 | **Mid-term exam** | 8 | 10 |
| 5 | **Practical web-based assignment** | 9 | 5 |
| 6 | **Final practical exam** | 11 | 20 |
| 7 | **Final Exam** | 12 | 50 |

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

## E. Learning Resources and Facilities

### 1. References and Learning Resources

| | |
|---|---|
| Essential References | **-Brusca, C.R., Brusca, G.J. and Haver, N.J. (2018) Invertebrates. Sinauer Associates; 2nd edition. 936 pages.**<br>**-Hickman, C.P., C.P., Larson, A., Helen I'Anson, H., Keen, S.L., Roberts, L.S. (2014) Integrated Principles of Zoology. 16th edition, McGraw Hill. London, New York** |
| Supportive References | **Walace, R.L., Beck, D.E., Braithwai, Water, K.T. (1996). Invertebrate Zoology: A Laboratory Manual.**<br>**-Rupert, E.E. & Barnes, R.D. (1994) Invertebrate Zoology. Saunders College Pub.** |
| Electronic Materials | **Zoological record** |
| Other Learning Materials | **Media softwares** |

## 2. Required Facilities and equipment

| Items | Resources |
|---|---|
| facilities<br>(Classrooms, laboratories, exhibition rooms, simulation rooms, etc.) | 2 Lecture rooms for a group of 30 students.<br>1 laboratory for a group of 15 students |
| Technology equipment<br>(projector, smart board, software) | One computer laboratory for a group of 15 students. |
| Other equipment<br>(depending on the nature of the specialty) | Light microscopes, slides, photomicrographs of the different phyla of invertebrates |

# F. Assessment of Course Quality

| Assessment Areas/Issues | Assessor | Assessment Methods |
|---|---|---|
| Effectiveness of teaching | | |
| Effectiveness of students assessment | | |
| Quality of learning resources | | |
| The extent to which CLOs have been achieved | | |
| Other | | |

**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

**Assessment Methods** (Direct, Indirect)

# G. Specification Approval Data

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| COUNCIL /COMMITTEE | Biology Department Board |
| REFERENCE NO. | BIO2214 |
| DATE | 20/9/2022AD |