



# Course Specification

## (Postgraduate Programs)

Course Title: Research Project I

Course Code: BIOD525

Program: Master's in Biodiversity

Department: Department of Biology

College: Faculty of Science

Institution: University of Tabuk

Version: 2

Last Revision Date: 18/11/1444 H

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## A. General information about the course:

### 1. Course Identification:

1. Credit hours: 3 Credit Hours

#### 2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track

B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (Level 3/Second year)

#### 4. Course General Description:

The student will learn how to design research, collect literature and data, interpretation of research findings, write research, preparation of the dissertation, and present research on different topics of biodiversity. They will be skilled in independent thinking skills, sample and data collection, and field training based on the modern techniques of biodiversity assessment and conservation.

The main steps for the completion of the research project are:

1. **Project development:** At the beginning of the second year, the students should have to prepare a research proposal on a topic related to the field of biodiversity.
2. **Weekly meetings with the supervisor:** The student and her/his supervisor should schedule a meeting time, preferably once per week.
3. **Data Collection:** During the first of the second year of the study, students should conduct a field and/or a lab to collect and start to analyze the obtained results.
4. **Writing up the Research Dissertation:** By the end of the academic year, each student has to submit at least the introduction and literature review related to his/her research topic to the supervisor. Further, students must present the progress of their work as an oral presentation to the supervisor.

#### 5. Pre-requirements for this course (if any):

- Microbial Biodiversity (BIOD508).

#### 6. Pre-requirements for this course (if any):

- None.

#### 7. Course Main Objective(s):

- To develop a deep knowledge, and skills in documentation, analyses, presentation of results, and writing scientific reports.
- To provide students with the skills needed to conduct a guided, independent research study on a specific topic in the field of biodiversity.
- To train students through research and problem-solving skills, literature searching, and presentation skills in the current field of biodiversity.



## 2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	90	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>Traditional classroom</li> <li>E-learning</li> </ul>		
4	Distance learning		

## 3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify) Supervisor meeting (Follow-up/monitoring), Coursework (Laboratory and/or field work + writing up the dissertation, etc..)	90
	Total	90

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

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Demonstrate deep knowledge of methodological theory in research topics with an emphasis on topics related to Biodiversity.	K1	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Ethical research practices sessions.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development.</li> <li>- Coursework.</li> </ul>
1.2	Describe key research methods and techniques in biodiversity studies,	K2	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Ethical research practices sessions.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development.</li> <li>- Coursework.</li> </ul>



Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	including field surveys, Experimental designs, and statistical evaluations.			
...				
<b>2.0</b>	<b>Skills</b>			
2.1	Use modern and creative techniques and tools to solve problems related to biological diversity and make recommendations.	<b>S1</b>	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Regular feedback sessions.</li> <li>- Individual and group presentations.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development.</li> <li>- Coursework.</li> <li>- Individual and group presentations.</li> </ul>
2.2	Select relevant literature on biodiversity issues to identify key findings and assess their relevance and impact.	<b>S3</b>	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Regular feedback sessions.</li> <li>- Individual and group presentations.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development</li> <li>- Coursework.</li> <li>- Individual and group presentations.</li> </ul>
2.3	Design research projects in biodiversity by creating plans, choosing methods, and using relevant tools to address key questions.	<b>S4</b>	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Presentations.</li> <li>- Regular feedback sessions.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development.</li> <li>- Coursework.</li> <li>- Individual and group presentations.</li> </ul>
...				
<b>3.0</b>	<b>Values, autonomy, and responsibility</b>			
3.1	Perform the research study independently, without bias following the utmost ethical standards.	<b>V1</b>	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Ethical research practices sessions.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development.</li> <li>- Coursework.</li> <li>- Individual and group presentations.</li> </ul>





Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
3.2	Demonstrate high personal effectiveness and responsibility during work individually or in group research.	V2	<ul style="list-style-type: none"> <li>- Coursework.</li> <li>- Seminars.</li> <li>- Ethical research practices sessions.</li> </ul>	<ul style="list-style-type: none"> <li>- Proposal development.</li> <li>- Coursework.</li> <li>- Individual and group presentations.</li> </ul>
...				

### C. Course Content:

No	List of Topics	Contact Hours
1.	Orientation and selection of supervised research topics and consistent guidance.	6
2.	Designing the study research; developing a plan for the research study.	6
3.	Designing the study research; developing a plan for the research study.	6
4.	Designing the study research; developing a plan for the research study.	6
5.	Designing the study research; developing a plan for the research study.	6
6.	Filed and/or lab work; Data collection.	6
7.	Filed and/or lab work; Data collection.	6
8.	Filed and/or lab work; Data collection.	6
9.	Filed and/or lab work; Data collection.	6
10.	Filed and/or lab work; Data collection.	6
11.	Filed and/or lab work; Data collection.	6
12.	Filed and/or lab work; Data collection.	6
13.	Filed and/or lab work; Data collection.	6
14.	Filed and/or lab work; Data collection.	6
15.	Filed and/or lab work; Data collection.	6
Total		90



## D. Students Assessment Activities:

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Proposal development	4	25
2.	Coursework (Field and laboratory work reports, draft submissions, progress reports, reviewing the literature, etc...) (by supervisor).	From week 5 to week 15	60
3.	Presentations	17	15
	<b>Total</b>		<b>100</b>

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

## E. Learning Resources and Facilities:

### 1. References and Learning Resources:

<b>Essential References</b>	<ul style="list-style-type: none"> <li>- Roberts, C. and Hyatt, L. (2019). The Dissertation Journey: A Practical and Comprehensive Guide to Planning, Writing, and Defending Your Dissertation, 3<sup>rd</sup> edition, SAGE Publications Ltd. ISBN 9781506373317.</li> <li>- Bailey, S. (2011). Academic Writing a Handbook of International Students's 3<sup>rd</sup> edition. ISBN 0-203-83165-9; Master e-book.</li> </ul>
<b>Supportive References</b>	<ul style="list-style-type: none"> <li>- Jaan, M. (2000). Textbook Research and Writing, Frankfurt am Main: Peter Lang.</li> </ul>
<b>Electronic Materials</b>	<ul style="list-style-type: none"> <li>- Saudi digital library.</li> <li>- Journal of Biodiversity.</li> <li>- UNESDOC Digital Library.</li> </ul>
<b>Other Learning Materials</b>	<ul style="list-style-type: none"> <li>- None.</li> </ul>

### 2. Educational and Research Facilities and Equipment Required:

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<ul style="list-style-type: none"> <li>- A sufficient number of classrooms and well-equipped practical laboratories are available to accommodate up to 25 students.</li> <li>- Library.</li> </ul>
<b>Technology equipment</b> (Projector, smart board, software)	<ul style="list-style-type: none"> <li>- Data show projectors and a wireless internet connection are available for</li> </ul>



Items	Resources
	<p>students and faculties.</p> <ul style="list-style-type: none"> <li>- Data show projectors and wireless internet connections available for students and faculties.</li> <li>- Smart blackboard. Computer Portable PowerPoint presentations.</li> </ul>
<p><b>Other equipment</b> (Depending on the nature of the specialty)</p>	<ul style="list-style-type: none"> <li>- None.</li> </ul>

#### F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	- Students.	- Direct & indirect.
Effectiveness of students' assessment	- Course instructors & Course coordinators (Teachers).	- Direct.
Quality of learning resources	- Students.	- Indirect.
The extent to which CLOs have been achieved	- Course instructors & Course coordinator. - Quality Committee.	- Direct & indirect.
Other	- None.	- NA.

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

**Assessment Methods** (Direct, Indirect)

#### G. Specification Approval Data:

<b>COUNCIL /COMMITTEE</b>	Department of Biology Council
<b>REFERENCE NO.</b>	Department Council NO (26)
<b>DATE</b>	26/11/1444 H

