Course Specifications

Course Title:	Graduation Project
Course Code:	412BIO-3
Program:	Biology
Department:	Biology
College:	College of Arts and Sciences
Institution:	Najran University

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A. Course Identification

1. Credit hours:3

2. Course type

a. University ☐   College ☐   Department ☒   Others ☐

b.   Required ☒   Elective ☐

3. Level/year at which this course is offered: VIII/ 4th year

4. Pre-requisites for this course (if any)**: non**

5. Co-requisites for this course (if any)**: non**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100
2	Blended		
3	E-learning		
4	Correspondence		
5	Other	-	

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	Lecture	45
2	Laboratory/Studio	
3	Tutorial	
4	Others (specify) E-learning	
	Total	45
Other Learning Hours*		
1	Study	25
2	Assignments	-
3	Library	20
4	Projects/Research Essays/Theses	-
5	Others (specify) : Office hours	10
	Total	55

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

This course prepares the students for undertaking future research work. Therefore, the supervisors help their students to understand the basic rules for preparing a research that tackles the current problems related to the region. Suitable lab equipment and lecture room facility should all be used to achieve this goal. To embark on a given research problem, students and supervisors must consider discussion of the market value of the research. Students are also encouraged to prepare for their talk in the form of PowerPoint presentations deposited as PDF files on the Department. Website that could be accessed by the students enrolled in the course. Most importantly, the students are also encouraged to participate in the annual competition for King Abdalla's award for undergraduate research.

2. Course Main Objective

1- Recognize the roles for preparing a research proposal.
2- Able to dig into literature and collect he information.
3- Know different research methodologies
4- Understand the methods of data collection.
5- Analyze the collected data.
6- Collaborate with the laboratory mates.
7- Discuss and interpret data.
8- Estimate ethics of Science

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge:**	
1.1	Recognize the roles for preparing a research proposal.	
1.2	Able to dig into literature and collect he information.	
1.3	Know different research methodologies	
2	**Skills :**	
2.1	Discuss and interpret data.	
2.2	Collaborate with the laboratory mates.	
2.3	Estimate ethics of Science	
3	**Competence:**	
3.1	Work independently and as a team work	
3.2	Manage recourses, time and other members of the group	
3.3	Communicate results of work with others	

C. Course Content

No	List of Topics	Contact Hours
	As stated earlier, this course is of a special form relative to those of the other courses. Different research subjects at the discretion of the supervisor and the student are undertaken	30

D. Teaching and Assessment
1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge:**		
1.1	Recognize the roles for preparing a research proposal.	Experimental procedure Oral discussion, lectures	Final and semester exams
1.2	Able to dig into literature and collect he information.	**Lectures**	Final and semester exams
1.3	Know different research methodologies		Final and semester exams
2.0	**Skills :**		
2.1	Discuss and interpret data.	Multi-media, videos , animations .....etc. Training on using some statistical programs by computers (SAS, Minitab, SPSS...... etc)	Class room activity
2.2	Collaborate with the laboratory mates.	Multi-media, videos , animations .....etc. Training on using some statistical programs by computers (SAS, Minitab, SPSS...... etc)	Class room activity
2.3	Estimate ethics of Science	Student negotiations	Class room activity
3.0	**Competence:**		
3.1	Work independently and as a team work	Student negotiations	Class room activity
3.2	Manage recourses, time and other members of the group	Student negotiations	Class room activity
1.3	Communicate results of work with others	Student negotiations	Class room activity

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	**Theoretical exam on selected taught lectures. Attendance and participation in lectures**	**6**	**20%**
2	**Grades of editorial committee (seminars)**	**15**	**30%**
3	**Supervisors grades**	**15**	**50%**

*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :
- 10 hours per week as office hours
- Academic advisor 10 hours per week

F. Learning Resources and Facilities
1.Learning Resources

Required Textbooks	James D. Lester: Writing Research Papers: A Complete Guide (15th Edition). Pearson publishing, 2014, pp. 424. Dorothy E.Zemach, Daniel Broudy, Chris Valvona: Writing Research Papers from Essay to Research Paper Student Book. Macmillan Elt, 2011, PP. 120
Essential References Materials	Beverly Chin: How to Write a Great Research Paper? (1st edition) Jossey-Bass publishing, **2004**, pp. 128.
Electronic Materials	Websites
Other Learning Materials	Films and videos related to the topic.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) 40 seats/ class room/ 20 seats/lab Computer access with data show and internet
Technology Resources (AV, data show, Smart Board, software,	Data show, Overhead projector
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Laboratory equipments related to research

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course evaluation	Student	direct
Student-faculty meeting	Faculty, Program Leaders	indirect
Departmental council discussions	Staff members	indirect
Discussion with the group of faculty teaching the same course	Peer Reviewer	indirect
Periodical departmental revisions	Peer Reviewer	indirect

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	