

Course Specification Template

1. General information about Instructor:

Name	Class Time & Office Hours							
Phone	Internal	1806	Day	SUN	MON	TUE	WED	THU
	External	/						
Mobile	0597223956		Class Time					13-16
Instructor's	Dr. Nawaf Abu-Khalaf		Class Room					G105
E-mail	n.abukhalaf@ptuk.edu.ps		Office Hours			8-9	9-10	10-11

2. General information about the Course

No.	Requirements											
1	Course Title	Scientific research and writing.										
2	Course code & Number	17011662										
3	Credit hours	Theo. (CH): 3 Practical (CH):/										
4	Faculty	Deanship of graduate studies and scientific research										
5	Department / Division that offers the course:	Agricultural Biotechnology										
6	Course type	Compulsory										
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7	Level and Semester	First year, 2 nd . Semester 2017-2018										
8	Prerequisite(s) – If any	<p>This course is open for M.Sc. students in Agricultural Biotechnology as the primary audience. Most of the students are graduate students in scientific disciplines and working as teachers, agricultural engineers, biotechnology technicians/teachers and professional scientists. There are no specific courses as prerequisites for this M.Sc. course. However, the student is supposed to have:</p> <ul style="list-style-type: none"> • A good command of English, and • General principles of writing thesis and research papers. 										
9	Co-requisite(s) – if any	/										
10	Program/programs for it/them the course is offered	M.Sc. Agricultural Biotechnology										
11	Instruction Medium:	English X <input checked="" type="checkbox"/> Arabic <input type="checkbox"/>										

3. Course description:

The course is designed for M.Sc. students to guide and provide them with the necessary skills needed to write their M.Sc. thesis, research proposals, scientific articles, and other required related scientific

documents.

In this course, students will be introduced to several different subjects: definition of scientific research, academic writing principles, aspects of professional technical writing, types of scientific research and methodological approaches, how to choose a topic for a scientific research and do search for your research, elements of a scientific report, communication of research outcomes and working with digital resources.

Students will be asked to go through a pre-test for evaluation their skills, and also to write an abstract, and “an expected” proposal for their thesis. By end of the course, each student is expected to deliver a paper/report in his/her major.

Instructor's evaluation of student's work will depend on extent of student's respect of scientific research criteria, guidance, and delivering homework.

4. General Course Objectives

The course goal is to teach the students to become more effective writers, using practical examples and exercises. Moreover, to teach them the professional and ethical responsibility.

The goals of the course can be summarized as:

- Learn how to write a coherent article,
- Develop good sentence and paragraph structure,
- Identify and correct the most common and stylistic errors,
- Learn to use powerful language and to write more succinctly,
- Improve grammar and punctuation, and
- Edit your work more independently.

5. Intended Learning Outcomes/ILO's (please specify the learning outcomes of the course as outlined below):

A) Knowledge and understanding

- Describe the scientific writing process and its key stages.
- Reflect on what constitutes a research problem to be addressed in a thesis or/and scientific paper.

B) Intellectual/Cognitive skills

- Perform subject searches in specialized scientific databases and online resources.
- Demonstrate the ability to use techniques and skills for academic writing.

C) Subject specialization and practical skills

- Organize and compose a thesis and scientific paper scientific paper in accordance with the international standards.
- Demonstrate an ability to communicate effectively.

D) General and transferable skills

- Analyze and review scientific papers in terms of key message, consistency and justification.
- Demonstrate an understanding the importance of scientific research and the role of ethical responsibility in professional scientific writing.

6. Topics covered and Calendar:

A. Theoretical parts (Please state the titles of the subjects you intend to cover each week)

No.	Topics	No. of hours
1.	Introduction about “Scientific research and writing” course: research definition and types, research flow, publications, and research situations around the world: countries and universities leading the scientific research, and the position of Palestine and Palestinian universities in the ranking.	3
2.	The writing process (1/3): background to writing, reading: developing critical approaches and plagiarism.	3
3.	The writing process (2/3): from understanding titles to planning, finding key points and note-making, summarising, paraphrasing, and references and quotations.	3
4.	The writing process (3/3): combining sources, organising paragraphs, introductions and conclusions, re-writing and proof-reading.	3
5.	Elements of writing (1/2): argument and discussion, cause and effect, cohesion, comparisons, definitions and generalisations.	3
6.	Elements of writing (2/2): numbers, problems and solutions, style, visual information, and working in groups.	3
7.	Accuracy in writing (1/3): abbreviations, academic vocabulary, articles, caution, conjunctions, nouns and adjectives, and prefixes and suffixes.	3
8.	Midterm	3
9.	Accuracy in writing (2/3): prepositions, punctuation, singular and/or plural, and synonyms.	3
10.	Accuracy in writing (3/3): time words, verbs – passives, verbs of reference, and verbs – tenses.	3
11.	Writing research proposal.	3
12.	Writing scientific article, and presenting thesis or dissertation.	3
13.	Activity for students	3
14.	Oral presentation of students.	3
15.	Oral presentations of students.	3
16.	FINAL EXAM	3

B. Practical part (Please state the titles of the experiments you intend to cover each week)

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7. Student assessment methods based on ILO's

No	Assessment method	Week	Mark	Percentage to overall mark
1.	Mid-term Exam	8	30	30%
2.	Coursework (e.g. quizzes, presentation and activities.)	During the course	30	30%
3.	Final Exam	After week 16	40	40%

8. References and other resources

A. Recommended Textbook(s): two maximum

1. Bailey, S. (2011). Academic writing. A handbook for international students. Third Edition. Routledge Taylor & Francis Group, ISBN: 978-0-415-59580-3.
2. Olson, J. F. (2009). Writing skills success in 20 minutes a day. Fourth Edition, ISBN: 1-57685-667-4.

B. Other references

1. Cargill, M. and O'Connor, P. (2009). Writing scientific research articles: Strategy and steps. First Edition. Blackwell Publishing, ISBN: 978-1-4051-8619-3.
2. Glasman-Deal, H. (2010). Science research writing for non-native speakers of English. First Edition. ISBN: 978-1848163102.
3. Hengl, T. and Gould, M. (2002). Rules of thumb for writing research articles. International Institute for Geo-information science and Earth Observation (ITC), Enschede, Holland, 1-9.

C. Electronic resources, Websites related to the course

1. American Association for Clinical Chemistry (AACC) (2015). Clinical Chemistry Guide to Scientific Writing. Date of access 07 February 2018, <https://www.aacc.org/publications/clinical-chemistry/clinical-chemistry%20A0guide-to-scientific-writing>.
2. Sainani, K. (2014). Writing in the sciences, Stanford University, "Coursera" course. Date of access 07 February 2018, <https://www.coursera.org/course/sciwrite>.
3. Simon, A. (2018). IELTS Simon, Daily lessons with Simon. Date of access 07 February 2018, <http://ielts-simon.com/>.

Name & signature of Head of department/ program leader

Name: signature: Date:

Name & signature of Quality rep. in your faculty

Name: signature: Date:

Course Tutor's name and signature

Name: signature: Date: