Faculty of Agricultural Sciences
University of the Punjab, Lahore
Course Outline

Programme	B.Sc. (Hons) Agriculture	**Course Code**	**ENT-401**	**Credit Hours**	3
Course Title	**SCIENTIFIC WRITING AND PRESENTATION**				

Course Introduction

Scientific writing and presentation of scientific data is of utmost importance in the field of scientific research. This course is formulated in the way to familiarize the students about research methods, handling of experimental data, writing of a research report and presentation skills. Students at the end of course will be familiarized about planning and conducting a research project, collecting research data, analysis of the data from different aspects and representation and writing the research data in the form of a research paper. Students will be provided information about the Concepts of synopsis, thesis, research paper, research project and monographs and they will learn to improve their scientific presentation skills.

Learning Outcomes

On the completion of the course, the students will have gained the ability to:

1. Describe academic honesty and authorship attribution and accountability.
2. Conduct an international search of relevant scientific literature and create an annotated bibliography.
3. Generate clear and reasonable research objectives.
4. Critically assess and interpret research findings.
5. Create and carry out tasks, goals, and deadlines.
6. Write and format a scientific manuscript.
7. Create a scientific poster or presentation for a scientific meeting.

	Course Content (Theory)	**Assignments/Readings**
Week 1	**Unit-I** 1.1. Collection of information 1.1.1. Books, 1.1.2. Journals 1.1.3. Websites as sources of reliable information	
	1.2.Collection of information (cont.…) 1.2.1. Spotting suspect information 1.2.2. Plagiarism 1.2.3. Fair use 1.2.4. Copyright	
Week 2	**Unit-II** 2.1. Informational keywords 2.1.1. Writing a point-wise information summary	

	2.1.2. Executive summaries and "plain language" summaries – examples from journal articles 2.1.3. Expanding a summary into text of specified length	
	2.2. Organization of a technical report or research paper 2.2.1. Scientific word usage 2.2.2. Synonyms	
Week 3	**Unit-III** 3.1. Organization of a technical report or research paper (cont.….) 3.1.1. Measurement systems 3.1.2. Abbreviations	
	3.2. Organization of a technical report or research paper (cont.….) 3.2.1. Modules 3.2.1.1. Title 3.2.1.2. Abstract 3.2.1.2.Introduction	
Week 4	**Unit-IV** 4.1.Organization of a technical report or research paper (cont.….) 4.1.1. Modules 4.1.1.1.Materials and methods 4.1.1.2.Results 4.1.1.3.Discussion 4.1.1.4.References 4.1.1.5.List of abbreviations 4.1.1.6.Acknowledgements 4.1.1.7.Funding sources 4.1.1.8.Organization of tables 4.1.1.9.Organization of Charts 4.1.1.10. Organization of figures 4.1.1.11. Format variations	
	4.2.Entomological literature	
Week 5	**Unit-V** 5.1. Internet Sources of entomological information	
	5.2. Layout of experiment	
Week 6	**Unit-VI** 6.1.Collection 6.2.Tabulation 6.3.Analysis and interpretation of research data 6.4.Instruction in research paper monograph and catalogue writing.	
	6.5. Writing synopsis	

Week 7	**Unit-VII** 7.1. Writing thesis	
	7.2. Writing research paper	
Week 8	**Unit-VIII** 8.1. Writing research paper (cont.…)	
	8.2. Writing research paper (cont.…)	
Week 9	**MIDTERM EXAM**	
Week 10	**Unit-IX** 9.1. Research project and monographs writing	
	9.2. Research project and monographs writing (cont.…)	
Week 11	**Unit-X** 10.1. Research project and monographs writing (cont.…)	
	10.2. Research project and monographs writing (cont.…)	
Week 12	**Unit-XI** 11.1. Oral presentations 11.1.1. Format, clarity, layout, and length of a slide/multimedia presentation	
	11.2. Oral presentations (cont.…) 11.2.1. Format, clarity, layout, and length of a slide/multimedia presentation	
Week 13	**Unit-XII** 12.1. Oral presentations (cont.…) 12.1.1. Integration of audio, video, and animations	
	12.2. Oral presentations (cont.…) 12.2.1. Organization of notes, presentation timing	
Week 14	**Unit-XIII** 13.1. Oral presentations (cont.…) 13.1.1 Engaging an audience, provoking, and responding to audience questions	
	13.2. Poster presentations 13.2.1. Effective layouts and poster design elements 13.2.2.Formal presentation	
Week 15	**Unit-XIV** 14.1. Poster presentations (cont.…) 14.1.1. Effective layouts and poster design elements 14.1.2.Formal presentation	
	14.2. Presentation skills	
Week 16	**Unit-XV** 15.1. Presentation skills	
	15.2. Presentation skills	

Course Content (Practical)		Assignments/Readings
Week 1	Use of internet sources and databases for entomological information	
Week 2	Visit different journal websites	
Week 3	Visit of digital libraries	
Week 4	Layout of experiments; collection of data, tabulation, analysis and interpretation of research data	
Week 5	Layout of experiments; collection of data, tabulation, analysis and interpretation of research data (cont.…)	
Week 6	Structuring a research paper & write a Methods section	
Week 7	Solidify objectives based on literature review results	
Week 8	Discuss the comparisons and tests needed to address objectives	
Week 9	**MIDTERM EXAM**	
Week 10	Submit an article to a scientific journal	
Week 11	Discuss abstract critiques	
Week 12	Discuss general questions about Abstract, Introduction, and Discussion	
Week 13	Selection of journals paper submission	
Week 14	Review submission guidelines for selected journals	
Week 15	Present your poster or presentation	
Week 16	Review steps for paper submission for each selected journal	

Textbooks and Reading Material

1. Davis, M. 2005. Scientific Papers and Presentations. Academic Press.
2. Ghani, M.A. and Ashfaq, M. (Edit). 1987. A Resume of Post-Graduate Research, 1929-1985. Deptt. of Entomology, University of Agriculture, Faisalabad.
3. Gilbert, I. and Himalton, C.J. 1983. Entomology: A Guide of Information Sources, Mausell Publishing Co. Ltd.
4. Quinn, G.P. and Michael, J.K. 2002. Experimental Design and Data Analysis for Biology. Cambridge University Press.

Note:

1. It is preferable to use latest available editions of books. Mention the publisher & year of publication.

2. The References/ bibliography may be in accordance with the typing manual of the concerned faculty/subject. Preferably follow APA 7th Edition publication manual.

Teaching Learning Strategies

1. Multimedia
2. White Board
3. Group discussion
4. Quiz/Assignments
5. Demonstration/Activity

Assignments: Types and Number with Calendar

Assessment

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.
3.	Final Assessment	40%	Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.