



Lahore University of Management Sciences

ENGG 502/SCI 502: From the Mind to the Pen: Clarity in Technical Writing

Spring 2022
(1 Credit hour)

Course Catalog Description	
This course teaches scientists and engineers that clarity of mind about a research project enables effective verbal and written communication. This course will help students to become effective scientific writers and communicators. Topics include: Clear science thinking, reading and reviewing a research paper, conducting an effective literature review, writing effective abstract, introduction, and conclusion sections of a paper/thesis.	

COURSE OBJECTIVES	
This course aims to teach graduate students essential elements of conducting research that includes developing a clear student's thinking about a research problem, reading and reviewing a research paper, and conducting an effective literature review. Also, techniques for clear and persuasive writing of a research paper/thesis will be taught.	

Course Details	
Credit Hours	1
Core	
Elective	
Open for Student Category	All Ph.D. Students. MS students with a thesis in year 2 after the instructor's approval
Closed for Student Category	Undergraduate students

Course Prerequisite(s)/Co-Requisite(s)	
Ph.D. student or MS student enrolled in a thesis	

Course Offering Details						
Lecture(s)	Nbr of Lec(s) Per Week	1	Duration	125 min	Timings and Venue	
Tutorials	Nbr of Tut(s) Per Semester	N/A				

Instructor	Imran Cheema
Room No.	9-252A
Office Hours	TBA
Email	imran.cheema@lums.edu.pk
Telephone	x8467
Secretary/TA	TBA
TA Office Hours	TBA
Course URL (if any)	LMS.

Course Learning Outcomes	
	<p>After taking this course, students should be able to:</p> <ul style="list-style-type: none"> • Have clear thinking about their research projects: a) What is their research project? b) How will they achieve their research objectives? and c) Why results of the project will be significant? • Communicate their research projects to out-of-area people. • Conduct an effective literature review for a research problem • Read and review a research paper effectively • Write clear and compelling structured abstract, introduction, and conclusion sections of a research paper and thesis



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Grading Breakup and Policy

Assignments: 30%
Contribution to others' work: 20%
Final paper: 50%

Examination Detail

Yes/No: No

Academic Honesty

The principles of truth and honesty are recognized as fundamental to a community of teachers and students. This means that all academic work will be done by the student to whom it is assigned without unauthorized aid of any kind. Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Any instances of academic dishonesty in this course (intentional or unintentional) will be dealt with swiftly and severely. Potential penalties include receiving a failing grade on the assignment in question or in the course overall. For further information, students should make themselves familiar with the relevant section of the LUMS student handbook.

Harassment Policy

SSE, LUMS, and particularly this class, is a harassment-free zone. There is absolutely zero tolerance for any behavior that is intended or has the expected result of making anyone uncomfortable and negatively impacts the class environment or any individual's ability to work to the best of their potential. In case a differently-abled student requires accommodations for fully participating in the course, students are advised to contact the instructor so that they can be facilitated accordingly. If you think that you may be a victim of harassment, or if you have observed any harassment occurring in the purview of this class, please reach out and speak to me. If you are a victim, I strongly encourage you to reach out to the Office of Accessibility and Inclusion at oai@lums.edu.pk or the sexual harassment inquiry committee at harassment@lums.edu.pk for any queries, clarifications, or advice. You may choose to file an informal or a formal complaint to put an end to offending behavior. You can find more details regarding the LUMS sexual harassment policy [here](#). To file a complaint, please write to harassment@lums.edu.pk.

SSE Council on Equity and Belonging

In addition to LUMS resources, SSE's **Council on Belonging and Equity** is committed to devising ways to provide a safe, inclusive, and respectful learning environment for students, faculty, and staff. To seek counsel related to any issues, please feel free to approach either a member of the council or email at cbe.sse@lums.edu.pk

Rights and Code of Conduct for Online Teaching

Misuse of online modes of communication is unacceptable. TAs and faculty will seek consent before the recording of live online lectures or tutorials. Please ensure if you do not wish to be recorded during a session to inform the faculty member. Please also ensure that you prioritize formal means of communication (email, lms) over informal means to communicate with course staff.

Textbook(s)/Supplementary Readings

1. Sinclair Goodlad, "Speaking Technically", Imperial College press.
2. Silvia P.J., "Write it up: Practical strategies for writing and publishing journal articles", American Psychological Association; 2015.
3. Williams J., "Style: Toward Clarity and Grace", Chicago: The University of Chicago. 1990.
4. W. C. Booth, Gregory G. Colomb, and Joseph M. Williams, "The Craft of Research", 3rd edition, The university of Chicago press, 2008.
5. George M. Hall, "How to write a paper", fifth edition, Wiley-Blackwell, 2013.
6. Bjorn Gustavii, "How to Write and Illustrate a Scientific Paper", Cambridge University Press (2008)



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Week	Topics	Events
1	Introduction to the course, clarity of thinking, What, How, Why?, Examples	
2	How to read and review a paper/group of 5-6 students will communicate their research with chalk and board (no slides)	Assignment assigned for writing a paper review
3	How to conduct a literature review/ group of 5-6 students will communicate their research with chalk and board (no slides)	
4	Avoidance of confused writing/ group of 5-6 students will communicate their research with chalk and board (no slides)	
5	Introduction to Latex, BibTeX, and EndNote/ a group of 5-6 students will communicate their research with chalk and board (no slides)	Assignment assigned for writing a Literature review
6	Titles, Abstract writing, Examples (Focus will be developing students' thinking in terms of i) What is the problem statement, and what has been done so far on this? ii) How can it be solved? Why solving the problem is important?)	<ul style="list-style-type: none"> The Abstract handout will be provided Two students from different departments (areas) will be paired to improve each other's abstract.
7	Interactive abstract reviews of 6-7 students (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the abstract handout)	<ul style="list-style-type: none"> First draft of abstract due Brief oral communication of research by each student with chalk and board. This will be the second round of oral communication.
8	Interactive abstract reviews of 6-7 students (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the abstract handout)	<ul style="list-style-type: none"> First draft of abstract due Brief oral communication of research by each student with chalk and board. This will be the second round of oral communication.
9	Interactive abstract reviews of 6-7 students (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the abstract handout)	<ul style="list-style-type: none"> First draft of abstract due Brief oral communication of research by each student with chalk and board. This will be the second round of oral communication. Detailed written feedback by the instructor for the first group students on their abstracts
10	Introduction, Conclusion/discussion writing, Examples (Focus will be on clear thinking and writing, i.e., thorough understanding of the problem statement, critical understanding of literature review related to the problem, approach, and results)	<ul style="list-style-type: none"> The Introduction and Conclusion writing handouts will be provided Detailed written feedback by the instructor for the second group students on their abstracts
11	Interactive introduction reviews of 9-10 students (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the Introduction handout)	<ul style="list-style-type: none"> First draft of introduction due 2-3 min brief oral communication of research by each student with chalk and board Detailed written feedback by the instructor for the third group students on their abstracts
12	Interactive introduction reviews of 9-10 students, Examples (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the Introduction handout)	<ul style="list-style-type: none"> First draft of Introduction due, 2-3 min brief oral communication of research by each student with chalk and board Detailed written feedback by the instructor for the first group students on their introductions
13	Interactive conclusion reviews of 9-10 students (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the Conclusion handout))	<ul style="list-style-type: none"> First draft of conclusion due Detailed written feedback by the instructor for the second group students on their introductions
14	Interactive conclusion reviews of 9-10 students (The instructor will make sure that students are developing correct thinking and writing skills and they have covered all points of the Conclusion handout)/ Concluding remarks on the course	<ul style="list-style-type: none"> First draft of conclusion, Detailed written feedback by the instructor for the first group students on their conclusions and the feedback on the second group will be provided soon
Finals week		<ul style="list-style-type: none"> Final paper due that includes a title, an abstract, an introduction, and a conclusion section