National University of Sciences & Technology (NUST)
School of Electrical Engineering and Computer Science (SEECS)
Department of Humanities

Technical/Business Writing			
Course Code:	HU212	**Semester:**	Spring 2017
Credit Hours:	2 + 0	**Prerequisite Codes:**	Nil
Instructor:	Ms. Komal Malik	**Class**	BESE 5
Office:		**Telephone:**	
Lecture Days:	Tuesday and Thursday	**E-mail:**	
Class Room:	Crs 18 and 19	**Consulting Hours:**	Wednesday 11:00-12:00
Knowledge Group:	Humanities	**Updates on LMS:**	After every lecture

Course Description:

The course focuses on the need of effective communication of technical information. It covers topics like the process and style of technical writing, audience, summary writing, memo writing, formal and informal report writing, job application and C.V. writing, agenda points and minute taking etc.

Course Objectives:

The objective of the course is to augment students' proficiency in conveying and exchanging technical information in various technical and corporate situations. It also aims to help them pursue their research activities.

Books:

Text Book:

Reference Book(s):

1. Reports, Technical writing and Specifications by Glidon H.K, Mcgraw Hill Book Company, London.
2. Technical writing by Steve M. Gerson.
3. Reporting Technical Information by Kenneth W. Houp, Thomas E.Persall, Tebeaux and Dragga Tenth Edition.
4. Technical Communication by Rebecca E.Burnett.

Course Learning Outcomes (CLOs):		
At the end of the course the students will be able to:	**PLO**	**BT Level***
1. Develop an ability to Comprehend technical/research writing strategies.	12	C-2
2. Adapt and formulate different Technical writing skills for formal and informal situations.	10	A-4
3. Application of different norms and medians of proficiency in communicating and exchanging technical information in various technical and corporate situations.	9	C-3
4. Compose and analyze technical and business documents in different types of Organizations.	11	C-4
* BT= Bloom's Taxonomy, C=Cognitive domain, P=Psychomotor domain, A= Affective domain		

Mapping of CLOs to Program Learning Outcomes

PLOs/CLOs	CLO1	CLO2	CLO3	CLO4
PLO 1 (Engineering Knowledge)				
PLO 2 (Problem Analysis)				
PLO 3 (Design/Development of Solutions)				
PLO 4 (Investigation)				
PLO 5 (Modern tool usage)				
PLO 6 (The Engineer and Society)				
PLO 7 (Environment and Sustainability)				
PLO 8 (Ethics)				
PLO 9 (Individual and Team Work)			√	
PLO 10 (Communication)		√		
PLO 11 (Project Management)				√
PLO 12 (Lifelong Learning)	√			

Mapping of CLOs to Assessment Modules and Weightages (In accordance with NUST statutes)

To be filled in at the end of the course.

Assessments/CLOs	
Quizzes: 10%	
Assignments: 10%	
OHT-1: 15%	
OHT-2: 15%	
End Semester Exam: 50%	
Total : 100 %	

Main Topics to be Covered:

1. **Technical Writing**
   a) Definition, Types, Objectives, and Skills Needed.
   b) Features /Qualities, Some Do's for Tech Communication.
   c) Stages of Writing (Planning, Drafting, Revising and Finishing.
   d) Group Writing.
   e) Audience (their knowledge level, roles, organizational distance, attitudes)
   f) Technical Writing Style (writing clear sentences, clear paragraphs, revising for clarity, organizing clearly)
   g) Summarizing and Outlining.
2. **Research Writing**
   a) Definition, Methodology
   b) Contents of a Research Paper. Abstract/Summaries, Introduction, Main Body, Conclusion, Recommendations.
3. **Personal Writing**
   a) CV/Resume, Job Application.
4. **Business Writing**
   a) Memorandum, Formal Letters
   b) Agenda Points
5. **Minutes of a Conference/Meeting.**

Week No	Topics
Week 1	Intro to the subject, importance, definitions Types of Tech Writing, features, qualities
Week 2	Mechanics of Tech Writing Mechanics of Tech Writing (cont)
Week 3	Stages of writing (Planning, drafting) Stages of writing (revising & finishing)
Week 4	Group Writing (requirements, techniques) Group Wring (stages)
Week 5	Audience (their knowledge level, roles) Audience (organizational distance, attitudes)
Week 6	Tech Writing Style (clear sentence, clear paragraph, active voice) Tech Writing Style (parallel structure, organizing clearly)
Week 7	**OHT-1**
Week 8	Preparing summaries Preparing outlines
Week 9	Research Writing (definitions, types,) Research Writing (methodologies)
Week 10	Research Writing (literature search, lib tools) Research Writing (abstract, introduction. main body)
Week 11	Research Writing (conclusion, recommendation) Research Writing (references, plagiarism) Writing Formal Letters
Week 12	Writing Informal Letters Writing Formal Letters (cont) Writing Informal Letters (cont)
Week 13	**OHT-2**
Week 14	Resume Writing

	Writing Job Application Informal Format
Week 15	Agenda Points Notices Memorandum
Week 16	Minutes of a Meeting Minutes of a Meeting (cont)
Week 17	Recommendation Reports Feasibility Reports
Week 18	Revision/Presentations
Week 19	**End Semester Exam**

Grading Policy:	
Quiz Policy:	The quizzes will be unannounced and normally last for ten minutes. The question framed is to test the concepts involved in last few lectures. Number of quizzes that will be used for evaluation is at the instructor's discretion.
Assignment Policy:	In order to develop comprehensive understanding of the subject, assignments will be given. Late assignments will not be accepted / graded. All assignments will count towards the total (No 'best-of' policy). The students are advised to do the assignment themselves. Copying of assignments is highly discouraged and violations will be dealt with severely by referring any occurrences to the disciplinary committee. The questions in the assignment are meant to be challenging to give students confidence and extensive knowledge about the subject matter and enable them to prepare for the exams.
Plagiarism:	SEECS maintains a zero tolerance policy towards plagiarism. While collaboration in this course is highly encouraged, you must ensure that you do not claim other people's work/ ideas as your own. Plagiarism occurs when the words, ideas, assertions, theories, figures, images, programming codes of others are presented as your own work. You must cite and acknowledge all sources of information in your assignments. Failing to comply with the SEECS plagiarism policy will lead to strict penalties including zero marks in assignments and referral to the academic coordination office for disciplinary action.

PLO Description

(i) **Engineering Knowledge:** An ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

(ii) **Problem Analysis:** An ability to identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

(iii) **Design/Development of Solutions:** An ability to design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

(iv) **Investigation:** An ability to investigate complex engineering problems in a methodical way including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of information to derive valid conclusions.

(v) **Modern Tool Usage:** An ability to create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering activities, with an understanding of the limitations.

(vi) **The Engineer and Society:** An ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solution to complex engineering problems.

(vii) **Environment and Sustainability:** An ability to understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

(viii) **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

(ix) **Individual and Team Work:** An ability to work effectively, as an individual or in a team, on multifaceted and /or multidisciplinary settings.

(x) **Communication:** An ability to communicate effectively, orally as well as in writing, on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

(xi) **Project Management:** An ability to demonstrate management skills and apply engineering principles to one's own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.

(xii) **Lifelong Learning:** An ability to recognize importance of, and pursue lifelong learning in the broader context of innovation and technological developments.