Course title: Communication skills and technical writing			
Course code: NRE 106	**No. of credits:** 2	**L-T-P:** 16-12-0	**Learning hours:** 28
Pre-requisite course code and title (if any):			
Department: Energy and Environment			
Course coordinator(s):		**Course instructor(s):** Dr Suneel Deambi	
Contact details: deambisuneel@gmail.com			
Course type: Core		**Course offered in:** Semester 1	

Course description

Students in the technology professions are proficient in their particular disciplines, but often unable to communicate effectively through reports or even scientific publications. Given that many students taking this course will not have a strong background in English, we propose to tackle this course in two ways.

One, by exposing the student to the requirements of technical writing as opposed to other kinds of formal writing and two, by providing a large number of exercises aimed at improving basic grammar, which will be assessed.

The student should be able to organize information for a report, a scientific paper and a proposal. He should be able to proofread his work, write concise emails and make technical presentations in PowerPoint. The use of graphs, tables and illustrations will also be taught.

Course objectives

Upon satisfactory completion of the course, students will be able to:

- Understand and use structures of argument appropriate to technical
- documents
- Understand and use a range of current web platforms and technologies

Course content

Module	Topic	L	T	P
	Critical thinking, reading and writing ▪ Why critical thinking is important in reading and writing? ▪ Ideating and developing an argument ▪ Understanding our audience and who we are writing for?	**2**		
1.	**Academic writing: An interdisciplinary approach** ***Understanding different styles in the science and social science space:*** ▪ Thesis, dissertation (Understanding the difference in science and social science writing) ▪ Publications, reports ▪ Op eds, critiques ▪ Blogs, journals ***On writing, well - positioning yourself as an author*** ▪ Audience, purpose and strategy ▪ Style, flow and formality ▪ Developing a discussion, argument and analysis ▪ Types of abstract and its development ▪ Words and its usage - looking at various writing styles and guidelines ▪ Use of infographics (tables, graphs, charts and visuals) ▪ Paragraph development: unity, lead and ending ▪ Reference styles ▪ Proof reading & editing ▪ Understanding the peer review process ▪ Presentation and form	6	6	

2.	**Business Writing** ▪ How to develop a good research proposal ▪ How to develop a project proposal ▪ Report writing ▪ Developing a good power point presentation ▪ Thinking about communication ▪ Communication skills	6	4	
3.	**Professional Writing** ▪ Email Writing ▪ CV and cover letters ▪ Letters & Memos	2	2	
		16	**12**	

Evaluation criteria

- Assignments: 35%
- Presentations: 15%
- Test 3: 50%

Learning outcomes

Pedagogical approach

Materials

Required text

Beer D. (1991) ***Writing and Speaking in the Technology Professions: A Practical Guide,*** Wiley-IEEE Press.

Markel M. (2009) *Technical Communications*, 9th Edition, Bedford/St Martin's.

Markel M. (1994) ***Writing in the Technical Fields: A Step-by-Step Guide for Engineers,*** **Scientists and Technicians**, publisher.

Suggested readings

http://courses.washington.edu/hcde231/Readings.html
http://www.writing.engr.psu.edu/
http://owl.english.purdue.edu/owl/resource/629/01/
http://www.writing.engr.psu.edu/exercises/

Case studies
Websites

Journals

Journal of Technical Writing and Communications

Additional information (if any)

Student responsibilities

The students are expected to submit assignments in time and come prepared with readings when provided.

Course Reviewers

1. Urooj Khan, Associate Professor, Colombia University, USA
2. Hugo Rojas, Associate Professor, Alberto Hurtado University, Chile, South America