

**Minutes of the Board of Studies Meeting (Online)**

**Department of Energy and Environment**

**TERI School of Advanced Studies**

12:00 noon to 01:30 pm, 30 July 2020

**Present**

1. Dr Atul Kumar, Professor
2. Dr Shaleen Singhal, Professor
3. Dr Prateek Sharma, Professor
4. Dr Kamna Sachdeva, Associate Professor (Chair HOD)
5. Dr Naqui Anwer, Associate Professor
6. Dr Chubamenla Jamir, Assistant Professor
7. Dr Manish Kumar Shrivastava, Assistant Professor
8. Dr Som Mondal, Assistant Professor
9. Dr Bhawna Sharma, Assistant Professor

**External Experts:**

**Prof. Sudesh Nangia (Retd.)**

Formerly Prof. CSRD, Jawaharlal Nehru University and National Coordinator UGC Faculty Recharge Programme

**Prof. Jayant K. Tripathi**

School of Environmental Sciences

Jawaharlal Nehru University

New Delhi-110067

**Agenda:**

- a. Internal Audit of the DEE department-review and feedback
- b. Course outline approval NRE 101

A meeting of the Board of Studies (BoS) was convened on 30<sup>th</sup> July 2020 at 1200 Hrs.

**I) Overall review:**

The internal audit of the department of Energy and Environment was conducted based on 46 indicators taken from NAAC AQAR. For each indicator comments were invited from experts using online form. 16 indicators were identified where department was found to be lagging. It needs deliberations and introspection (ref. to section II). However, 2/3 times departmental performance either fall in satisfactory/good category. Review indicates that teaching and academics of the department is doing exceptionally well. The USP of the department is to focus on student centric

decisions and enough interactions between students and teachers has been observed. Department has well qualified and experienced faculty those are dedicated for their work.

II. Further work needs to be consolidated:

- i. Four programs with limited faculty strength can have impact on the personal research work, this aspect was highlighted from number of research projects available per faculty indicator, ample time should be given to the faculty for deeper and critical thinking.
- ii. Sports activities, it is very common to observe low sports and cultural activities in higher education institute where master's programs have been offered. Deliberate efforts to promote under Khelo India program should be taken.
- iii. Need is to establish strong human resource data collection centre (HRD). This centre will help to collate and analyse data related to student, their performance in various competitive exams and higher educational enrolments.
- iv. Ex-students or alumni forum should have been at placed, supporting and engaged alumni network is important for University reputation. The growth of Universities and higher education institutions are based on the strong alumni network.
- v. Course curriculum should have been revised taking national level competitive examinations viz; GATE NET. in consideration. Moreover Prof. Nangia specially mentioned that revision of course should be focused on removing redundancy and overlaps. Prof Tripathi has given the reference of last BOS dated (19 June 2020) where he suggested alignment of certain course (Geoscience and Earth System Sciences with the NET and GATE exams).
- vi. University/department should invest to support faculty members to attend international programs/workshop/ conferences. Both the experts realised that at this stage department is not doing enough in this field. This kind of investment give long lasting impact in outreach and networking. Moreover, such investments are important to promote research environment.
- vii. Promotion of start-ups and Incubation centre, students should be supported through guided efforts, this provides unique opportunity for potential students and business plan.
- viii. Faculty need to start applying for faculty leadership awards, innovation awards etc. Experts have seen huge potential in faculty to apply such awards, but according to current evaluation we are lagging in this field/section.
- ix. PhD completion ratio per faculty need to be improved. This is a gap area and improvement at this front is required.
- x. Experts highlighted that department need to obtain more government funded project, if not alone then submission of collaborative research has been advised.

- xi. National level conference and outreach activities can be tapped through available government schemes.
  - xii. University should promote consultancy projects; these projects can be the best instrument to bring money for the university and enhance involvement of faculty in research.
  - xiii. Campus-community partnerships and community outreach efforts such as involvement of local RWA or raising awareness of local communities about ill effects of pollution episodes can be explored. Government of India is supporting collaborations between higher educational institutes and their communities. Such events can be awarded by the government and in view it will bring good reputation to the university.
  - xiv. Department should have dedicated platform where policy briefs and working papers can be edited and uploaded. Every year several good major project thesis works has been produced, those can be evaluated for potential working papers and policy briefs. This will increase impact of our research on society and will help policy makers for taking science-based policy decisions.
- b) Board of studies approved outline of NRE 101-Technical writing and communication skills by BOS.
- i. The change in title of the course NRE 101 from “Technical writing (technical writing and communication skills)” to “Technical writing and communication skills” has been recommended.
  - ii. There is a need to regularly update the reading resources and therefore recommended to go ahead with the suggested updates in the reading list
  - iii. Revised Outline attached in the annexure

.....The meeting end at around. 1:30 pm on 30<sup>th</sup> July 2020 and minutes has been approved by circulation.

## Annexure1

<b>Course title:</b> Technical Writing and Communication Skills				
<b>Course code:</b> NRE 101	<b>No. of credits:</b> 2	<b>L-T-P:</b> 23-05-0	<b>Learning hours:</b> 28	
<b>Pre-requisite course code and title (if any):</b>				
<b>Department:</b> Department of Energy Environment				
<b>Course coordinator:</b>		<b>Course instructor:</b>		
<b>Contact details:</b>				
<b>Course type:</b> Core		<b>Course offered in:</b> Semester 2		
<p><b>Course Description</b></p> <p>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.</p> <p>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.</p> <p>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.</p>				
<p><b>Course objectives</b></p> <p><input type="checkbox"/> To introduce the students to the requirements of technical writing</p> <p><input type="checkbox"/> To teach the students on how to collate and organize information for a a report, a scientific paper and a proposal.</p>				
<b>Course content</b>				
<b>SNo</b>	<b>Topic</b>	<b>L</b>	<b>T</b>	<b>P</b>
1.	<p><b>Critical thinking, reading and writing</b></p> <p><input type="checkbox"/> Why critical thinking is important in reading and writing?</p> <p><input type="checkbox"/> Ideating and developing an argument</p> <p><input type="checkbox"/> Understanding our audience and who we are writing for?</p>	2		

2.	<b>Academic writing: An interdisciplinary approach</b> <i>Understanding different styles in the science and social science space:</i> <ul style="list-style-type: none"> <li><input type="checkbox"/> Thesis, dissertation (Understanding the difference in science and social science writing)</li> <li><input type="checkbox"/> Publications, reports</li> <li><input type="checkbox"/> Op eds, critiques</li> <li><input type="checkbox"/> Blogs, journals</li> </ul> <i>On writing, well - positioning yourself as an author</i> <ul style="list-style-type: none"> <li><input type="checkbox"/> Audience, purpose and strategy</li> <li><input type="checkbox"/> Style, flow and formality</li> <li><input type="checkbox"/> Developing a discussion, argument and analysis</li> <li><input type="checkbox"/> Types of abstract and its development</li> <li><input type="checkbox"/> Words and its usage - looking at various writing styles and guidelines</li> <li><input type="checkbox"/> Use of infographics (tables, graphs, charts and visuals)</li> <li><input type="checkbox"/> Paragraph development: unity, lead and ending</li> <li><input type="checkbox"/> Reference styles</li> <li><input type="checkbox"/> Proof reading &amp; editing</li> <li><input type="checkbox"/> Understanding the peer review process</li> <li><input type="checkbox"/> Presentation and form</li> </ul>	6	6	
3.	<b>Business Writing</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> How to develop a good research proposal</li> <li><input type="checkbox"/> How to develop a project proposal</li> <li><input type="checkbox"/> Report writing</li> <li><input type="checkbox"/> Developing a good power point presentation</li> <li><input type="checkbox"/> Thinking about communication</li> <li><input type="checkbox"/> Communication skills</li> </ul>	6	4	
4.	<b>Professional Writing</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Email Writing</li> <li><input type="checkbox"/> CV and cover letters</li> <li><input type="checkbox"/> Letters &amp; Memos</li> </ul>	2	2	
	<b>Total</b>	<b>16</b>	<b>12</b>	
<b>Evaluation criteria</b> <ul style="list-style-type: none"> <li>▪ Assignments: 35%</li> <li>▪ Presentations: 15%</li> <li>▪ Major Test: 50%</li> </ul>				
<b>Learning outcomes</b> Upon satisfactory completion of the course, students will be able to: <ul style="list-style-type: none"> <li><input type="checkbox"/> Understand and use structures of argument appropriate to technical documents</li> <li><input type="checkbox"/> Understand and use a range of current web platforms and technologies</li> </ul>				
<b>Pedagogical approach</b> Lectures, discussions and writing assignments				
<b>Materials</b> Required textbook <ol style="list-style-type: none"> <li>1. Eunson B., (2008). Scientific and technical writing. In Communicating in the 21<sup>st</sup> Century. 2<sup>nd</sup> Edition. John Wiley and Sons Australia. Pp. 6.1-6.31.</li> <li>2. Beer D. (1991) <i>Writing and Speaking in the Technology Professions: A Practical Guide</i>, Wiley-IEEE Press.</li> <li>3. Markel M. (2009) <i>Technical Communications</i>, 9<sup>th</sup> Edition, Bedford/St Martin's.</li> </ol>				

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

Suggested readings

1. Sayer E.J., 2019. The essentials of effective scientific writing – A revised alternative guide for authors. *Functional Ecology*, 33:1576–1579. DOI: 10.1111/1365-2435.13391
2. <https://www.craftofscientificwriting.com/>
3. <http://www.writing.engr.psu.edu/handbook/exercises.html>

Case studies

Websites

Journals

1. Journal of Technical Writing and Communications

**Additional information (if any)**

**Student responsibilities**

Attendance, feedback, discipline, guest faculty, etc.

**Course Reviewers**

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