



INTRODUCTION TO PROFESSIONAL SCIENTIFIC COMMUNICATION

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PRE-REQUISITES : Basic level of understanding on concept and methodology in scientific research

INTENDED AUDIENCE : Science and engineering stream students interested or pursuing R&D related activities.

INDUSTRIES APPLICABLE TO : This course is meant for professional development, and hence applicable to all R&D related industries and academia

COURSE OUTLINE :

The objective of this course is to introduce undergraduate and postgraduate students to the different aspects of professional science communication including written and oral communication, and publication ethics in research.

ABOUT INSTRUCTOR :

Prof. S. Ganesh teaches biology, genetics and genomics at IIT Kanpur. His research interests include human molecular genetics and neuroscience. He works on genetic forms of neurodegenerative disorders in humans to understand their genetics and disease mechanisms, and to develop therapeutics. He has been serving on the editorial boards of journals, and offers courses on professional and scientific communication at IIT Kanpur.

COURSE PLAN :

Week 1: Introduction to Professional Scientific Communication, Discussion of creativity, research ideas and where to find them, Inductive reasoning versus deductive reasoning

Week 2: Hypothesis, reasoning and testing the hypothesis, Peer review process, Structure of a scientific report

Week 3: Structure of a Research article, Title, abstract, methods, results, and discussion

Week 4: Structure of a Research article contd., Schematic diagrams, figures, tables and flow charts rationale and usage, Ethics in biomedical research, Different forms of writing: scientific report, proposal, and reviews, Presentations-thumb rules and good practice