

**Course Title:** **Scientific Writing**

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| **Course Category: PS 646 Schedule of Offering: 3rd Semester**  **Course Credit Structure: 4 Credits**  **Lecture: 4 Hours per week**  **Contact Hours per week: 4 Hours per week**  **Course Instructor: Prof. Sreevalsa Kumar** |

1. **Introduction**

This course is designed to help the post graduate students develop the knowledge and skills necessary to engage in effective scientific communication. Topics covered in this course progress from introduction to scientific writing through topics such as reading and thinking; beginning to write; contents; style and grammar; reference citations; computer skills; to revising.

1. **Course Objectives:**

At the end of the course, students should be able to:

1. Explain how research material might be effectively presented
2. Reflect on the ethics in scientific writing
3. Prepare scientific and technical papers of high quality
4. Format documents and presentations to optimize their appeal
5. Effectively use features of Microsoft Word and Microsoft Excel to produce academic materials
6. Accept constructive criticism and use reviewers’ comments to improve quality and clarity of written reports and presentations.
7. **Pre-requisites:**

Registration to MSc Applied Psychology programme

1. **References**:

American Psychological Association (2010). *Publication manual of American Psychological*

*Association* (6th Ed.). Washington, DC: Author.

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Nair, R. (2017). *Academic journal editing and publishing*. Chennai: Notion Press.

Silvia, P. (2007). *How to write a lot: a practical guide to productive academic writing*.

Washington, DC: American Psychological Association.

Wyse, D. (2012). *The good writing guide for education students* (3rd Ed.). London: Sage.

**5.Module-wise Topics:**

**Module 1 Introduction to Scientific Writing (3 sessions)**

* How do researchers communicate?
* Types of scientific communication
* Ethics in scientific writing

**Readings**

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Silvia, P. (2007). *How to write a lot: a practical guide to productive academic writing*.

Washington, DC: American Psychological Association.

**Module 2: Reading and Thinking (11 sessions)**

* + Searching the scientific literature
  + Using the CVV library
  + Using online search engines
  + What is a refereed journal?
  + Plagiarism and how to avoid it
  + Reading and note taking
  + Critical reading and systematic recording
  + How not to read
  + Speed-reading

**Readings:**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Nair, R. (2017). *Academic journal editing and publishing*. Chennai: Notion Press.

Silvia, P. (2007). *How to write a lot: a practical guide to productive academic writing*.

Washington, DC: American Psychological Association.

**Module 3: Beginning to Write (10 sessions)**

* + Establishing your constraints
  + Organizing your writing
  + Preparing outlines
  + Standard formats for scientific papers, research projects and theses
  + Style guides

**Readings**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

American Psychological Association (2010). *Publication manual of American Psychological*

*Association* (6th Ed.). Washington, DC: Author.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Silvia, P. (2007). *How to write a lot: a practical guide to productive academic writing*.

Washington, DC: American Psychological Association.

**Module 4: Content (10 sessions)**

* + Creating a literature review
  + Preparing other sections of a research report (abstract, introduction, methods, results and discussion, conclusions)
  + Including and summarizing research data

**Readings**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

American Psychological Association (2010). *Publication manual of American Psychological*

*Association* (6th Ed.). Washington, DC: Author.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Silvia, P. (2007). *How to write a lot: a practical guide to productive academic writing*.

Washington, DC: American Psychological Association.

**Module 5: Style and Grammar (9 sessions)**

* + Scientific writing style
  + First-person vs. Third-person
  + Passive vs. active voice
  + Avoiding excessive wording
  + Grammar
  + Punctuation
  + Spelling
  + Presentation and proof reading
  + Avoiding misuse of words
  + Use of footnotes

**Readings**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

American Psychological Association (2010). *Publication manual of American Psychological*

*Association* (6th Ed.). Washington, DC: Author.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Silvia, P. (2007). *How to write a lot: a practical guide to productive academic writing*.

Washington, DC: American Psychological Association.

**Module 6:** **Reference Citations (6 sessions)**

* + How to use references
  + References within the text
  + How to make lists of references

**Readings**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

American Psychological Association (2010). *Publication manual of American Psychological*

*Association* (6th Ed.). Washington, DC: Author.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

**Module 7: Revising (6 sessions)**

* Dealing with revisions
* Accepting criticism
* Making sense of reviewers’ comments
* Making the changes
* What to do if you don’t agree with reviewers’ comments

**Readings**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

Nair, R. (2017). *Academic journal editing and publishing*. Chennai: Notion Press.

**Module 8: Computer Skills in Scientific Writing (5 sessions)**

* Microsoft Word
* Formatting (including margins, tabs, indents, justification, etc.)
* Using the table feature
* Creating tables of content
* Microsoft Excel
* Creating tables, charts, graphs

**Readings**

Alley, M. (2003). *The craft of scientific presentations: critical steps to succeed and critical*

*errors to avoid*. Ney York: Springer.

Gastel, B., & Day, R. A. (2016). *How to write and publish a scientific paper* (8th Ed.). New

York: Greenwood Publishing Group Inc.

**6.Pedagogy**

Teaching methods are expected to encourage proactive involvement of students and high level of participation, thus, shall involve interactive lectures (40%), independent learning (40%), and cooperative learning (20%). The interactive learning component will consist of lecture sessions, classroom exercises, and discussions. The independent learning component, on the other hand, shall include such exercises as independent reading and doing individual assignments in the form of behavioural assessments, behavioural intervention plan development, etc. Finally, the cooperative learning component involves doing assignments in groups.

It is envisaged that students will be guided to read, think, solve problems and actively participate in the learning process. This shall be attained through a mix of teaching methods, such as, lectures, projects, assignments, case studies, individual and group presentations, discussion, and fieldwork.

**7.Evaluation Pattern**

Both formative (periodic assignments and projects) and summative (mid semester and final examinations) evaluation will be used.

The breakdown of the evaluation shall be as follows.

Class Participation and Attendance …………………………… 5%

Term Paper ……………………………… 10%

Individual Assignment (including Presentations) …..…………. 10%

Group Assignments (including Presentation) ....………………. 5%

Mid semester Examination …………………………………… 20%

Final Examination ……………………………. 50%

Total ……………………………………………………… 100%