SBC (2) (II.6.3) Learning Ways of Mathematical Writing
Skill Based Course

1. Credit Distribution of the Course

Course title & Code SBC (2) (II.6.3)	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Learning Ways of Mathematical Writing	2	1	0	1	Undergraduate	-

2. Learning Objectives

The course focuses on the fundamentals of mathematical writing with precision and accuracy. It enables students to write quality mathematical content that is conceptually and pedagogically sound quality mathematics content. The course will focus on variety and nature of mathematical content.

3. Learning Objectives

- understand the structure of mathematics as a language;
- learn the way of effective mathematical writing;
- use mathematical vocabulary in everyday communication;
- critically examine mathematical content through different sources and in different time periods.

4. Syllabus

Unit I Mathematics as a language and expression - Features of mathematical language, essential rules of mathematical writing, technical aspect of mathematical writing, mathematical definitions, mathematical proofs and algorithms. **[8 hours]**

Unit II Learning through exemplary pieces of mathematical writings - Critical analysis of mathematical content in textbooks, reference books and research based books, review of exemplary pieces of mathematical writing. **[7 hours]**

5. Illustrative Practical details **[30 hours]**

- Use Frayer's model for defining mathematical concepts.
- Use Polya's problem solving framework for higher order thinking skills
- Develop meta-cognition strategies for problem solving skills
- Develop text-book analysis blueprint and analysed a math textbook.

6. Essential Readings

- Vivaldi F. (2014). *Introduction to mathematical writing*, School of Mathematical Sciences, The University of London.
- Krantz S.G. (1997). *A primer of mathematical writing*. American Mathematical Society.
- Knuth D.E., Larrabee T. & Roberts P.M. (1989). *Mathematical writing*, Mathematical Association of America.

7. Suggestive Readings

- Polster, B. (2011). *Mathematical writing*. Springer.
- Zick, D. (2014). *How to write mathematics*. Cambridge University Press.