

**Programme:** M. Sc. (Physics)

**Course Code:**PHO-314

**Title of the Course:** Documentation using LaTeX

**Number of Credits:** 2

**Effective from AY:** 2018-19

<b><u>Prerequisites for the course:</u></b>	Nil	
<b><u>Objective:</u></b>	<p>LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation. LaTeX is the de facto standard for the communication and publication of scientific documents. LaTeX is available as free software.</p> <p>Objective of this course is to introduce the basics of how LaTeX works, how to install LaTeX and Tex editor TeXstudio, explain how to get started, and go through lots of examples.</p>	
<b><u>Content:</u></b>	<p>Course Contents: In this course we will cover:</p> <ul style="list-style-type: none"><li>● Setting up a LaTeX Document</li><li>● Typesetting Text</li><li>● Handling LaTeX Errors</li><li>● Typesetting Equations</li><li>● Using LaTeX Packages</li><li>● Structured Documents</li><li>● Sections, Labels and Cross-References</li><li>● Figures and Tables in LaTeX</li><li>● Automatic Bibliographies with BibTeX</li><li>● Useful LaTeX Packages and Online Resource</li><li>● LaTeX Presentations with Beamer</li></ul>	24 hours
<b><u>Pedagogy:</u></b>	<p>Lectures/ self-study/ assignments. Sessions shall be interactive in nature to enable peer group learning.</p>	
<b><u>References/Readings</u></b>	<ol style="list-style-type: none"><li>1. Leslie Lamport, LaTeX: A document preparation system, User's guide and reference manual, Addison Wesley, 1994.</li><li>2. Frank Mittelbach, Michel Goossens, Johannes Braams, David Carlisle, Chris Rowley, The LaTeX Companion, 2nd edition (TTCT series), Addison-Wesley Professional, 2004.</li></ol>	
<b><u>Learning Outcomes</u></b>	Students are expected to learn how to write a scientific document, presentation, scientific report, dissertation etc. in LaTeX.	