Lesson Plan 2018-2019
B. Sc. (Hons) Mathematics (Semester IV).
SEC-2 Computer Algebra Systems and Related Softwares

Teacher: Mr. Sweeti Yadav & Mr. Kapil Kumar   **Workload : 2 (L) + 2 (P) per week**

References:	1. Bindner, Donald & Erickson, Martin. (2011). *A student's Guide to the Study, Practice, and Tools of Modern Mathematics.* CRC Press, Taylor & Francis Group, LLC.

Unit	Week	Topics Covered
1	**Week-1** January 1-4, 2019	Use of Mathematica, Maple, Maxima as a calculator.
	Week-2 January 7-11, 2019	Use of Mathematica, Maple, Maxima in computing functions.
	Week-3 January 14-18, 2019	Use of Mathematica, Maple, Maxima in making 2d Graphs.
	Week-4 January 21-25, 2019	Use of Mathematica, Maple, Maxima for exploring linear algebra.
	Week-5 January 28 - February 1, 2019	MATLAB/Octave as a calculator, Test and Assignment.
	Week-6 February 4-8, 2019	MATLAB/Octave for exploring linear algebra.
	Week-7 February 11-15, 2019	MATLAB/Octave for plotting Curves.
	Week-8 February 18-22, 2019	Matlab for Plotting Surfaces.
2	**Week-9** February 25- March 1, 2019	R as a calculator.
	Week-10 March 4-8, 2019	Using R to expore data.
	Week-11 March 11-15, 2019	Using R to expore relation.
	Week-12 March 25-29, 2019	Using R for testing hypothesis.
	Week-13 April 1-5, 2019	Using R to generate table Values, Test and Assignment.
	Week-14 April 8-12, 2019	Using R to simulate Data.
	Week-15 April 15-19, 2019	Plotting data using R.
	Week-16 April 22-26, 2019	Final test(if necessary) and assignment submission.