

Centre for Vedic Mathematical Studies School of Mathematics, Computers and Information Sciences Central University of Himachal Pradesh



(Established under Central Universities Act 2009) Shahpur Parisar, Shahpur – 176206 www.cuhimachal.ac.in

Course Name: Vedic Calculations

Course Code: CVMS 282

Level: 3 Credits: 2

Credits Equivalent:

(One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Outcomes: On completion of the course, the students will be able:

- > To perform basic calculations
- > To compute simple interest, and do permutation and combinations
- > To understand the idea of mensuration, and height and distance

Learning Outcomes

The deliverables Learning Outcomes of this paper with students are following:

- > Can explain the idea of transition methods as per Vedic Tradition.
- Can explain Rules of Barter, and simple interest as per Vedic Tradition.
- ➤ Can explain mensuration, and solve height and distance problems as per Vedic Tradition.
- ➤ Can take quick decisions through Vedic calculations.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- 1. Mid Term Examination: 20%
- 2. End Term Examination: 60%
- 3. Continuous Internal Assessment: 20%. i.e. 20 marks out of 100

Course Contents:

Unit I: Method of Transition, Square Transition, Inverse Proportion, Rules of Barter, Simple Interest, Permutations and Combinations, Partitions. (10 HRS)

Practicum

- ➤ Solving the Exercises of the selected Chapters
- > Implementation on the selected real world problems

Unit II: Mensuration, Volume, Wood Cutting, Height and Distance.

(10 HRS)

Practicum

- ➤ Solving the Exercises of the selected Chapters
- > Implementation on the selected real world problems

General Practicum:

- i. Class Room Presentation
- ii. Model/Chart/PowerPoint based presentations
- iii. Assignment/ Write Up/Creative work
- iv. Books/Journals Readings
- v. Tutorials/PBL

Essential Reading:

K. S. Patwardhan, S. A. Naimpally, S.L Singh: *Lilavati of Bhaskaracarya: A Treatise of Mathematics of Vedic Tradition*, Motilal Banarsidass Publishers Pvt. Ltd, Delhi (2001).