

## Certificate Course in Bharatiya Ganit Shastra {Vedic maths}

Bharatiya Ganit shastra (Vedic Mathematics) simplifies all the branches of Mathematics. It has increasingly found acceptance across the globe. This current certificate program has been designed as per Diploma course syllabus. It will help the students understand fundamentals of Mathematics to excel in their academic field. Participants will be able to apply Bharatiya Ganit shastra concepts in various domains of Mathematics Such as:

- Trigonometry & Calculus.
- Coordinate Geometry
- Polynomial Functions
- Algorithms & Graphs  
and much more.

This unique program will also lead to expansion of Logical, Conceptual thinking, and insight in Individual. In addition, preparation for Competitive exam being an inbuilt part of Bharatiya Ganit Shastra program makes it a holistic and essential prerequisite for today's rapidly changing world. The very objective of this Certificate program is to make student conversant with Bharatiya Ganit Shastra Principles and formulae which are easy to understand and flexible in operative procedure. Duration of certificate course will be of 10 weeks with thrice a week lectures of 1.5-hour duration. Training will cover glorious history of Bharatiya Ganit (Vedic Maths), Flexible calculation process involved in for complex Mathematical processes in above mentioned domains of Mathematics. Outcome of certificate course will be ease in calculation of complex problems with swiftness and accuracy

यथा शिखा मयूराणां, नागानां मणयो यथा।  
तद् वेदांगशास्त्राणां, गणितं मूर्ध्नि वर्तते॥

“Like the crowning crest of a peacock and the shining gem on the cobra's hood, Mathematics is the supreme among Vedanga shastras.”

## About Gujarat Technological University

Gujarat Technological University (GTU) is the largest state government university in Gujarat, catering to the fields of Engineering, Business Management, Computer Science, Pharmacy and Architecture. GTU is having a pool of more than 4,00,000 students and 18,000 professors teaching in more than 485 affiliated colleges/institutes across the state of Gujarat. Today GTU is considered as the benchmark among the technological universities of India. GTU has the largest International Experience program in collaboration with universities of US, Canada, China and Germany. The Industrial Training and Placement Cell transform a knowledge seeker into a sought-after professional. GTU's Policy Documents for Student Start-up Development and for Skill Development Mission are being used by universities all over India.

## About JKMS

JKMS Foundation was established in the year 2016 with an aim to promote Bhartiya Ganit Shastra. It connects ancient Bhartiya wisdom to modern Mathematics and inspires young minds to solve problems in the easiest way possible with perfection. JKMS caters problems from Calculations to Calculus. Vigorous endeavors have been put in continuing the legacy of 19th century Mathematician, Srinivasa Ramanujan, His Holiness Shri Bharati Krishna Tirth Maharaj, A. R. Rao, P.C. Vaidya, Shakuntala Devi and many upcoming Indian Mathematicians JKMS Foundation has successfully organized sessions of Bharatiya Ganit Shastra {Vedic Mathematics } with GTU, Faculty development Program with L.D. College of Engineering, DIET, SCERT New Delhi, Vaidik Gurukulam Lucknow. JKMS is also associated with Blind Persons Association Ahmedabad about training visually Impaired students with concepts of Mathematics. It is also conducting online training program in association with VHPA (U.S.).



**Gujarat Technological University**  
**Graduate School of Engineering and Technology**  
**Centre For Continuing Education**  
**(GTU- CCE)**  
**And**  
**Jagat Kyoso Centre**  
**for**  
**Mathematics and sciences**  
(Supported by JKMS Foundation New Delhi)  
**Organize**

**“CERTIFICATE PROGRAM”**  
**IN**  
**BHARATIYA GANIT SHASTRA**  
**{Vedic Mathematics}**  
**Its Applications**  
**in**  
**Modern Mathematics**  
**(Basic & Advanced level)**

**Training Mode: Online**

**Starts 1<sup>st</sup> December 2020 (Tuesday)**

**Ends 06<sup>th</sup> February 2021(Friday)**

Thrice a week Evening hour { IST }.

**BHARATIYA GANIT SHASTRA**  
**(Vedic Maths)**  
**A WAY**  
**TO**  
**UNDERSTAND MATHS**

## About Bhartiya Ganit Shastra

Mathematics is the unseen thread that links various subjects together to form a beautiful necklace of the Total Knowledge. Mathematics is the queen of all sciences. Yet, it is a distressing word for many across the world. It has been considered as a dry subject, studied as an obligation. The application of Mathematics is there in all walks of life as well as professions. Many students learn maths out of compulsion whether they like it or not. Majority of School children feel that they must deal with Mathematics only till they finish school but, when they enter college, this dream is often shattered.

### Mathematics in Ancient India

In the ancient India, mathematics was not taught as a separate subject. It was imbibed in other subjects like Astrology, Astronomy, Engineering, and so on. This added a different flavor to mathematics. Students were made to observe the forming of different shapes and patterns in the nature. They were shown how different numbers had different properties as could be seen in any field – be it science, spirituality, astrology, and many more.

### Mathematics By Ancient Indian Mathematicians

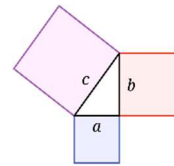
The mathematics in India can be sighted in the Vedic literature which developed later into Astronomy, Astrology, Algebra, Arithmetic, Geometry and so on. As per the need of time, the ancient Indian mathematicians like Aryabhata, Bhaskara, Varahmihir, compiled the existing knowledge of mathematics along with their discoveries into both exhaustive and the works written by these medieval mathematicians were far advanced than the mathematics that evolved in the West.

Brahmagupta, established rule for cyclic quadrilaterals and globally famous Brahmagupta equation. Bodhayana explained complete theory of right-angled triangles in his globally famous book Shulba Sutras. LILAVATI of Bhaskaracharya is “The Manuscript of Maths” Since the last century, many Westerners have started doing research and translating many a works by the ancient Indian mathematicians. The expositions by ancient Indian mathematicians can also be termed Vedic because it was developed from the Vedic literature. Remember that Ancient Indian Mathematics does not mean only techniques to: - do calculations faster, but also covers the whole of mathematics as a subject. Bharatiya Ganit Shastra (Vedic Mathematics) teaches different ways to solve the same problem.

$$\cos \alpha + \cos \beta = 2 \cos \frac{1}{2}(\alpha + \beta) \cos \frac{1}{2}(\alpha - \beta)$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} (x + a)^n = \sum_{k=0}^n \binom{n}{k} x^k a^{n-k}$$

$$(1 + x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \dots$$



$$a^2 + b^2 = c^2$$

दीर्घचतुरस्रस्य अक्षणयारज्जुःपार्श्वमानी तिर्यमानिच। यत्  
पृथग्भूते कुरुतस्तदुभयं करोति॥

Bodhayana Shulba Sutra chapter I verse 48  
In a Right-Angled Triangle the sum of the areas of the two squares on the legs (a and b) equals the area of the square the hypotenuse (c).

## Coordinators

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2] Mrs. Charu Kharbanda

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Resource Persons

- (1) Dr. Nagalakshmi Devi
- (2) Mr. V.G. Unkalkar
- (3) Mr. Maruti J. K. Sharma
- (4) Mr. Dheeraj Gupta

### Important Guidelines

**Eligibility:** 10+2 or equivalent in from a recognized Board. Eng. Diploma / degree students / Graduates / Postgraduates / Professionals

**Apply Online** ([payment Link on google Form](#))

**Last Date of Online Application:** 28th Oct. 2020

**Program fee :** Rs.3500/- per candidate

**Non- Residential; For Indian Citizens**

**Overseas Students:** USD. \$ 150.0

**Fees is inclusive of Study Material (soft copy) and online exam fees**

**Venue: Online mode**

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**(Vedic Maths)**

**A WAY**  
**TO**

**“UNDERSTAND MATHS”**