

Shri Ramdeobaba College of Engineering and Management, Nagpur
(An Autonomous Institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)
Department of Civil Engineering
One Year Post Graduate Certificate course In Sthapatya Veda – Scheme Of Teaching and Evaluation

RCOEM

Shri Ramdeobaba College of
Engineering and Management, Nagpur

**SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND
MANAGEMENT, NAGPUR – 440013**

An Autonomous College affiliated to Rashtrasant Tukadoji Maharaj Nagpur University,
Nagpur, Maharashtra (INDIA)

DEPARTMENT OF CIVIL ENGINEERING

One Year Post Graduate Certificate Course in

“STHAPATYA VEDA”

Shri Ramdeobaba College of Engineering and Management, Nagpur
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Foundation course of Sthapatya Veda

Scheme of Teaching & Examination - Semester I

Sr. No.	Course code	Course Name	Hours/week			Credits	Maximum marks			ESE duration (Hrs)
			L	T	P		Continuous evaluation	End Sem Exam	Total	
1	CETD11	Science of architecture	1	1	0	2	40	60	100	3
2	CETD12	Sutra Mandal	2	1	0	3	40	60	100	3
3	CETD13	Manushalaya I	2	2	0	4	40	60	100	3
4	CETD14	Devalaya I	2	2	0	4	40	60	100	3
5	CETD15	Yoga Sutra I*	1	1	0	0	0	0	0	0
6	CETD16	Sanskrit	1	0	0	1	40	60	100	3
			9	7	0	14	200	300	500	

Audit Course ‘*’

Scheme of Teaching & Examination - Semester II

Sr. No.	Course code	Course Name	Hours/week			Credits	Maximum marks			ESE duration (Hrs)
			L	T	P		Continuous evaluation	End Sem Exam	Total	
1	CETD21	Project I	0	0	12	6	200	300	500	-
			0	0	12	6	200	300	500	-

- Total Course Credit = 20 Credits
- Total Marks = 1000 marks
- Daily Teaching = 8 Hours (Friday-Saturday)

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Program Objectives:

The objectives of the foundation Sthapatya Veda course program are to integrate based on knowledge and skills in a balanced manner, essential to allow students to become sensitive Sthapati. Following are the program objectives.

- The program will prepare student to understand Sthapatya Veda as a system of planning and construction that will encourage for replacement of contemporary architecture.
- The program will prepare students to interpret the principles of Sthapatya Veda in a scientific manner with today's architectural pattern.
- The program will prepare student to understand the fundamental philosophy and essential concepts of the multi-dimensional elements of Sthapatya Veda.
- The program will prepare students to develop and improve problem-solving skills, thinking ability and evaluation design.
- The program will prepare student to develop and present design concepts and solutions as per the Sthapatya Veda principles.
- The program will prepare the student to perform with standard competencies in alignment with the scope of practice so as to work globally.
- The program will prepare students to work effectively in the construction industry by applying the principles of Sthapatya Veda.
- The program will prepare student to integrate social, economic and environmental aspects of buildings to fulfil the requirement of society.

Program Outcomes:

The objectives of the program are translated into some of the studying results. Towards the end, the scholars who enter this program will own the ability to:

- The student will understand the scientific principle of Sthapatya Veda and can practice as a Sthapati with a technical perspective in their current and future projects.
- The student will understand the actual situation in practice and recognize the dialectical relationship between people and the built environment in terms of their needs, behavioural norms and social models.
- The student can produce professional-quality presentations, research, drawings and documents as per Sthapatya Veda.
- The student will work in a manner that is consistent with the accepted professional standards and ethical responsibilities.
- The student can conduct independent and directed research to gather information related to the problems in Sthapatya Veda.

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Site Visit

- Red Fort, Shahjahanabad, Old Delhi.
(Lahori Gate, Delhi Gate, Chatta Chowk, Mumtaz Mahal, Rang Mahal, Khas Mahal, Diwan-i-Aam, Diwan-i-Khas, Hira Mahal, Princes' quarters, Naubat Khana, Nahr-i-Bihisht, Hammam, Baoli, Moti Masjid, Hayat Baksh Bagh)
- Agra in Uttar Pradesh.
(Taj Mahal, Tomb of Akbar, Aram bagh)
- A temple, Angkor Wat, in Siem Reap, Cambodia.
- A temple, Mahabalipuram, Tamil Nadu.

Eligibility Criteria:

- Graduates (B.E. / B.Tech. / AMIE) of Civil / Structural / Construction Engineering)
- Graduates of Architecture
- Master in Architecture
- Master in Civil Engineering
- MBA in Construction Management
- Bachelor of Interior Design

Teaching and Evaluation Methodology

Friday-Saturday – Timing- 09:00-05:00

Mode of conduction- Hybrid (Offline and Online)

- Teaching methodology for External assessment will be in the same architecture and engineering, like Drafting, site visits, case studies, etc.
- Internal assessment will be based on an analysis of case studies.
- The Foundation course of Sthapatya Veda is mandatory for the advanced course.

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Department of Civil Engineering

Course Code: CETD11

Course Name: Science of architecture

Semester: I

Total Credits: 02

L: 01 Hrs. T: 01 Hrs, P : 00 Hrs., Per Week

Course Outcomes:

Student can able to

1. Understand the fundamental knowledge of basic aesthetic principles of Sthapatya Veda.
2. Apply basic principles of Sthapatya Veda in profession life.
3. Create new ideas to integrate the systems, services and sciences with architecture.

Course Content

1. A central theme of Sthapatya Veda
 - i. Vedic Fundamental and Vedantic thought
 - ii. What is Sthapatya Veda?
 - a. Its Importance
 - b. Its Application in today's context
 - iii. Definition of Sthapati, Sutradhar, Sutragrahi, Takshak, Vardhak, Sthapati lakshan
 - iv. How Sthapati different from an Architect or Engineer?
2. Science of engineering behind Sthapatya Veda
(Quantum Mechanics - Sun Path, Sound, Waves, Light, Earth, Magnetism)

Recommended books-

1. Dr. Shaileja Pandey, "Manushyalaya Chandrika", Choukhamba Surbharati Prakashan, Varanasi.
2. Maharshi Abhay Katayan, "Vishwakarma Prakash", Choukhamba Surbharati Prakashan, Varanasi, 2017.

Reference Text

1. Vindeshwari Prasad Dwivedi, "Muhurt Chitamani", Choukhamba Surbharati Prakashan, Varanasi, 2011.
2. Dr. Shrikusna Juganu, "Shilplashastra", Choukhamba Sanskrit Series Office, Varanasi, 2006.
3. Prasanna Kumar Acharya, "Architecture of Manasaram", Bharatiya Kala Prakashan, 2012

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Course Code: CETD12

Course Name: Sutra Mandal

Semester: I

Total Credits: 03

L: 02 Hrs. ,T: 01 Hrs., P: 00 Hrs., Per Week

Course Outcomes:

Student can able to

1. Understand the basic principles of Sutra Mandal.
2. Apply concepts of Sutra Mandal in planning and designing structure.
3. Evaluate the design proposal as per the concept of Sutra Mandal.

Course Content

1. Sutra Mandal Siddhanta

- i. Ghata Bimba Drusthant – Central Theme
- ii. How does the sutra Mandal Siddhanta connect with the yoga sutra?
- iii. How does planetary placement work in Sutra Mandal Siddhanta?

2. Sutra Mandal Siddhanta Theory Part I

158 sensitive node

BEM (Bio Electro Magnetic) Grid pattern

Bhumi Lakashanam -Examination of land

-Selection of land

-Shape and size of land

-Qualities of land

3. Sutra Mandal Siddhanta Applications

(1. Bramhanabhi 2. Bramhasutra 3. Yamsutra 4. paryantarsutra 5. Nadi 6. Rajju

7. Kamasutra 8. Mrityusutra 9. Shulasutra 10. Nagasutra 11. Mahamarma)

4. Sutra Mandal Siddhanta Types and Patterns

32 patterns of sutra Mandal introduce – SAKALAM (1X1) to INDRAKRANTA (32X32)

Manduk Sutra Mandal (8X8)

Parmsaika Sutra Mandal (9X9)

Asanastha Sutra Mandal (10X10)

Sthaniya Sutra Mandal (11X11)

5. Patterns- a concentric layer of Sutra Mandal

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6. Mandal Siddhanta

Nadi Mandal, Tatva Mandal, Graha Mandal, Nakshatra Mandal, Avakhada Chakra Mandal, Disha Mandal, Urja Mandal

7. Aya and Vyay Siddhanta

Construction in the selected land and structure. Siddhanta are to be followed for scientific and accurate construction.

8. Vrukshayurveda

- i. Trees and plantation in sutra Mandal Siddhanta
- ii. Landscaping sutra Mandal Siddhanta

Recommended books-

1. Dr. Shaileja Pandey, “Manushyalaya Chandrika”, Choukhamba surbharati Prakashan, Varanasi.
2. Maharshi Abhay Katayan, “Vishwakarma Prakash”, Choukhamba Surbharati Prakashan, Varanasi, 2017.

Reference Text

1. Vindeshwari Prasad Dwivedi, “Muhurt Chitamani”, Choukhamba Surbharati Prakashan, Varanasi, 2011.
2. Dr. T. Ganpati Sastri, “Tantra samuchay”, Nag Publishers, Delhi, 1990.
3. Dr. Shrikusna Juganu, “Shilplashastra”, Choukhamba Sanskrit Series Office, Varanasi, 2006.
4. Prasanna Kumar Acharya, “Architecture of Manasaram”, Bharatiya Kala Prakashan, 2012
5. Panditabhushana V. Subrahmanya Shastri, “Brihat Samhita”, Hari Parshad Das, 2013.

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Course Code: CETD13

Course Name: Manushalaya I

Semester: I

Total Credits: 04

L : 02 Hrs., T :02 Hrs., P : 00 Hrs., Per Week

Course Outcomes:

Student can able to

1. Understand all the Sutra Mandal concepts while designing as per Sthapatya Veda.
2. Analyze the internal and external methodology of different projects.
3. Apply the skills of Sutra Mandal Siddhanta in the planning and erection of structures for human beings.

Course Content

1. Residential

(Villa, House, Apartment, Farm House, Hotel, Hostel)

- i. The basic principle of Sutra Mandal Siddhanta for residential units starts with site selection and development.
- ii. Basic methodology for Planning and Designing.
- iii. Internal Planning and Designing start from Alindra (Veranda) Living Room, Staircase, Kitchen, Bedroom, Toilet, Bathroom, store room and front and back courtyard for Apartment to Villa.

2. Housing- (Housing scheme)

- i. The basic principle of Sutra Mandal Siddhanta for units starts with site selection and development.
- ii. Basic methodology for Planning and Designing.

Recommended books-

1. Dr. Shaileja Pandey, “Manushyalaya Chandrika”, Choukhamba surbharati Prakashan, Varanasi.
2. Maharshi Abhay Katayan, “Vishwakarma Prakash”, Choukhamba Surbharati Prakashan, Varanasi, 2017.

Reference Text

1. Vindeshwari Prasad Dwivedi, “Muhurt Chitamani”, Choukhamba Surbharati Prakashan, Varanasi, 2011.
2. Dr. T. Ganpati Sastri, “Tantra samuchay”, Nag Publishers, Delhi, 1990.
3. Dr. Shrikusna Juganu, “Shilplashastra”, Choukhamba Sanskrut Series Office, Varanasi, 2006.
4. Prasanna Kumar Acharya, “Architecture of Manasaram”, Bharatiya Kala Prakashan, 2012
5. Panditabhushana V. Subrahmanya Shastri, “Brihat Samhita”, Hari Parshad Das 2013.

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Course Code: CETD14

Course Name: Devalaya I

Semester: I

Total Credits: 04

L : 02 Hrs., T : 02 Hrs., P : 00 Hrs., Per Week

Course Outcomes:

Student can able to

1. Understand the principles of perspective shrine drawing.
2. Apply the term of the shrine to develop an architectural plan.
3. Analyze architectural ornamentation in Devalaya.

Course Content

1. Devalaya

1. Types of Devalaya
2. Nagar Style
3. Dravid Style
4. Vesara Style

2. Anatomy of Devalaya

Temple components like Garbhagruh, Antaralam, Mahamadapam, Savkasa Antaealam, Nrutya Mandapam, and Rajgopuram along with pillars and various other parts of the temple structure.

3. Devalaya as a human form

Study of Uppitham, Adhistanam, Padmam, prastaram, Galam, Shikharam, Stupikalasha.

4. Devalaya archetypal form

Recommended books-

1. Dr. Shrikusna Juganu, “Shilplashastra”, Choukhamba Sanskrut Series Office, Varanasi, 2006.

Reference Text

1. Vindeshwari Prasad Dwivedi, “Muhurt Chitamani”, Choukhamba Surbharati Prakashan, Varanasi, 2011.
2. Dr. T. Ganpati Sastri, “Tantra Samuchay”, Nag Publishers, Delhi, 1990.
3. Prasanna Kumar Acharya, “Architecture of Manasaram”, Bharatiya Kala Prakashan, 2012

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Course Code: CETD15

Course Name: Yoga Sutra I

Semester: I

Total Credits: 00

L :01 Hrs., T : 01 Hrs., P : 00 Hrs., Per Week

Course Outcomes:

Student can able to

1. Understand the techniques to sit with a controlled mind.
2. Investigate into contemplating the Self in a transpersonal psychological context.
3. Apply concepts of yoga sutra to improve their analytical as well as logical skills.

Course Content

1. Positive Health Science

Introduction to health, concept of positive health; definition of health according to WHO, definitions of health according to Indian health systems i.e. Ayurveda and Yoga; factors affecting health, characteristics of positive health; potential causes of ill health, signs and symptoms of ill health; need and importance of holistic health practices; application of yoga in promoting positive health; role of yoga in spiritual health.

2. Breathing Practices and Meditation Techniques

Breath awareness; Controlled breathing, fast breathing (with gradually increasing and decreasing speed), sectional fast breathing; deep breathing (With 1:1, 1:1.5 and 1:2 ratio of Inhalation: Exhalation), sectional deep breathing; Pranav mudra for sectional breathing Omkar chanting with 2:3:5 ratio of A: U: M; Gayatri Matra Chanting.

3. Yoga for Self-Management

Yoga Practices for IQ Development; Yogic Practices for memory development; Yogic practices to improve concentration; Yogic Practices for improve emotional balance; Yoga for Stress Management.

4. Yoga Practices for Personality Development

Yoga Practices to Improve posture; Yoga Practices to improve voice; Yogic practices for creativity development; Yogic practices for anger management; Yogic Practices for Ego and Greed Management; Yogic practices for time management.

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Recommended Books:

1. Bhogal R.S., “Yoga and Mental Health”, Yoga Mimansa Publications, Lonavala.
2. Shreevani R., “A Guide to Mental Health & Psychiatric Nursing”, Jaypee Brothers Publishers.
3. Vivekananda R., “Practical Yoga Psychology”, Yoga Publication Trust, Bihar, 2006.
4. Iyengar B. K. S., “Yoga the Path to Holistic Health: The Definitive Step-by-Step Guide”, DK.
5. Khalasa S. B. S. and others, “The Principles and Practice of Yoga in Health Care”, Sage Publication.

Reference Text:

1. Feuerstein G., “The Psychology of Yoga”, Shambala, 2014.
2. Swami Rama, “Yoga and Psychotherapy, Himalayan Institute Press”, 2007.
3. Mishra R. S., “Textbook of Yoga Psychology”, Three Rivers Space, 1987.
4. Jung C. G., “The Psychology of Kundalini Yoga” – Notes of the Seminar Given in 1932 (Jung Extracts, Princeton University Press.
5. Swami Om, “The Wellness Sense”, Element India, 2015.
6. Nagendra R., “Integrated approach of Yoga therapy for Positive Health”, 2008.
7. Bijlani R., “Back to Health Through Yoga, Rupa and Co”.

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Course Code : CETD16

Course Name: Sanskrit

Semester: I

Total Credits: 01

L :01Hrs., T : 00 Hrs., P : 00 Hrs., Per Week

Course Outcomes:

The student can able to

1. Understand the basic terminology of ‘Sthapatya Veda’.
2. Understand and interpret correctly the quotes written in Sanskrit.

Course Content

1. Manushalaya Chandrika

- i. Definition of Sthapati, Sutradhar, Sutragrahi, Takshak, Vardhak, Sthapati lakshan
- ii. Ghata Bimba Drusthant – Central Theme
- iii. Bhumi Lakashanam -Examination of land
 - a. -Selection of land
 - b. -Shape and size of land
 - c. -Qualities of land

2. Vishwakarma Prakash

- i. Jalashayam- Jalashayan shape, Jalashayam directions and their effects.
- ii. Vrukshchedan- Plantation of trees in a different category, discarded trees for residence, discreditable tree different effects.

3. Bhagavadgeeta

(Adhyay 12 & 15)

Recommended books-

1. Dr. Shaileja Pandey, “Manushyalaya Chandrika”, Choukhamba surbharati Prakashan, Varanasi.
2. Maharshi Abhay Katayan, “Vishwakarma Prakash”, Choukhamba Surbharati Prakashan, Varanasi, 2017.
3. “Shrimad Bhagavad Geeta”

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Course Code: CETD21

Course Name: Project I

Semester: II

Total Credits: 06

L : 00 Hrs., T :00 Hrs., P : 12 Hrs., Per Week

Course Outcomes:

The student will be able to

1. Design a residential project incorporating all the Sutra Mandal principles while planning and designing.
2. Apply all the skills acquired in the duration of preceding courses.
3. Evaluate design process and design solution to a residential design problem.

Course Content

It is a project chosen by the student and approved by the guide at the individual level. The project related to understanding the role of the principle of Sutra Mandal Siddhanta for residential units (Apartments, villas, and bungalows) starts with site selection and development. The project will involve Sutra Mandal Siddhanta analysis, a case study according to Sutra Mandal and assignments that are based on Sutra Mandal Siddhanta.

The process of the project can be divided into distinct stages:

1. Data collection, case studies, site analysis and preliminary Design
2. Pre-final design stage
3. Final design, report

Project work shall be evaluated by the quality of the work performed, the submission of the project report and viva.

Recommended books-

1. Dr. Shaileja Pandey, “Manushyalaya Chandrika”, Choukhamba surbharati Prakashan, Varanasi.
2. Maharshi Abhay Katayan, “Vishwakarma Prakash”, Choukhamba Surbharati Prakashan, Varanasi, 2017.

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Resource Persons: Architect Abhishek Deshpande

- Architect Abhishek learned extremely precise knowledge of Sthapatya Veda – Vedic Architecture, Quranic verses, and Biblical verses.
- Architect Abhishek mastered thousands of Sutras in Sthapatya Veda. Architect Abhishek an eminent Sthapati and Spiritual Engineer.
- Architect Abhishek a scholar of Science of Architecture and Spirituality – the Engineering of the Divine, and an instructor of this Indian Science and Technology.
- Architect Abhishek revived this Ancient knowledge and implemented it in the real world in respect to the current context.
- Architect Abhishek was appointed as a Sthapatya Veda consultant by RSS headquarter Supremo to redesign its Nagpur headquarters.
- Architect Abhishek has design on 100+ projects on Sutra Mandal Siddhanta including Residential, Commercial premises, Universities, Offices at Delhi, Ghaziabad, Noida and Gurgaon.

- Architect Abhishek along with Architect Nikita Niwal.

- Yog Sutra, Sankrit, Astrology- Prof. Madusudan Penna.