

SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE



Official Publication of Sant Gadge Baba Amravati University

PART- TWO

(Extra-Ordinary)

Tuesday, the 5th November, 2024

NOTIFICATION

No. 148 /2024

Dated : 05 /11/2024

Subject : Implementation of the new syllabus of Semester I & II of the subjects of B.E./ B.Tech. (Chem. Engg.)/B.Tech.(Chem.Tech.(Food, Pulp & Paper, Oil & Paint and Petrochemical Tech.)/B.Text. Engg. as per NEP- 2020 Pattern.

Reference : SGBAU Notification No. 146 of 2024 dated 30.10.2024.

It is notified for general information of all concerned that the authorities of the University have accepted to implement the new syllabus of Semester I & II of the subjects of B.E./ B.Tech. (Chem. Engg.) / B.Tech.(Chem.Tech. (Food, Pulp & Paper, Oil & Paint and Petrochemical Tech.)/B.Text. Engg. as per NEP- 2020 Pattern to be implemented from the academic session 2024-2025 onwards which is notified vide Notification No. 146 of 2024 as per reference mentioned above in which the syllabus of two (2) subjects – Engineering Graphics & Lab. And Indian Traditional Knowledge has not been published.

Hence, it is again notified for general information of all concerned that the syllabus of the subjects Engineering Graphics & Lab. And Indian Traditional Knowledge of Semester I & II of B.E./ B.Tech. (Chem. Engg.) / B.Tech.(Chem.Tech. (Food, Pulp & Paper, Oil & Paint and Petrochemical Tech.)/B.Text. Engg. as per NEP- 2020 Pattern to be implemented from the academic session 2024-2025 & onwards is as under:

Sd/-
(Dr.A.M.Asanare)
Registrar
Sant Gadge Baba Amravati University

SEMESTER –II

Subject: 2AS114ES ENGINEERING GRAPHICS [Credits: 2]

Unit-I: Introduction to Engineering Graphics: (6 hours)

- [a] Scales (Plain Scale and Diagonal Scale).
- [b] Introduction to Planes of projections, Projections of points in all possible position w.r.t. reference planes.
- [c] Projections of lines when it is perpendicular to one of the reference planes, when line is inclined to one and parallel to other reference plane, Line inclined to both reference planes.

Unit-II: Projections of Planes & Solids (6 hours)

- [a] Projection of Planes inclined to one reference plane & perpendicular to the other, Projection of Planes inclined to both the Reference Planes.
- [b] Projection of solid when axis is perpendicular to one of the reference planes, when axis is inclined to one and parallel to other reference plane (Projection of right regular prisms, right regular pyramids, right circular cylinder, right circular cone)

Unit-III: Sections of Solids& Development of Surfaces (6 hours)

- [a] Section of Solids of Right regular Solids in simple position (Right regular prisms, right regular pyramids, right circular cylinder and right circular cone)
- [b] Development of surfaces of simple regular solids

Unit-IV: (6 hours)

Orthographic Projection, Principles of Orthographic Projections, Conventions Multi view orthographic projections for parts/ patterns with isometric/ non-isometric surfaces and circular features and sectional views. Reading of orthographic.

Unit-V: Isometric View and Projection (6 hours)

Principles of Isometric projection - Isometric Scale, Isometric Views, Conventions; Isometric Views of Simple Solids; conversion of Orthographic views to Isometric views.

Suggested Text / Reference Books:

- i) Bhatt N. D., Panchal V.M. Engineering Drawing, Charotar Publishing House.
- ii) Jolhe D. A. Engineering Drawing with an Introduction to Auto CAD, Tata McGraw- Hill Pub. Co. Ltd., New Delhi.
- iii) Shah P. J., Engineering Drawing, S. Chand Publication
- iv) Naraynan K. L., Kannaiah P. – Engineering Drawing, Scitech.
- v) Dhawan R. K. – Engineering Drawing, S. Chand Publication
- vi) Basant Agrawal, C. M. Agrawal -Engineering Drawing, McGraw Hill Publication work.

: 2AS117ES ENGINEERING GRAPHICS – LAB.

Every student will submit a set of at least Six (06) drawing sheets (from 1 to 10 listed below) and perform at least one practical (from 11 to 13 listed below) using CAD software.

List of Practicals:

1. Construction of Scales
2. Construction of Cycloidal Curves
3. Construction of Simple Mechanisms
4. Projection of Lines
5. Projection of Planes
6. Projection of Solids
7. Section of Solids
8. Development of Surfaces
9. Orthographic Projection
10. Isometric View & Projection
11. Free hand sketches of simple machine elements, like : (a) Screw threads ISI profile, (b) Types of nuts, bolts, studs, set screws, washers, locking arrangement of nuts & bolts (c) Foundation bolts – Rag, eye, lewis types

Minimum 02 problems are expected to be constructed on any one module given below using CAD software tools. Submit the Printouts of CAD drawings as under:

***Solve, construct & dimension the problems on:**

12. To construct & dimension 2D geometrical shapes using CAD tool
13. To solve, construct & dimension the problems of Projection of Lines using CAD tool.
14. To solve, construct & dimension the problems of Projection of Planes using CAD tool.

Syllabus for Semester II Common for All branches

Subject: INDIAN KNOWLEDGE SYSTEM / INDIAN TRADITIONAL KNOWLEDGE

Level	Semester	Course Code	Course Name	Credits	Teaching Hours	Exam Duration	Max Marks
	II	2AS120IK	Indian Traditional Knowledge	2	30	-----	50

Course Outcomes:

After completion of this course successfully, students would be able to-

1. Develop an appreciation about the role and importance of Veda and Indian Philosophy of Life, prominent art forms, etc.
2. Explain the role and importance of Science and Technology in India.
3. Gain knowledge about the role and importance of Yoga and Ayurveda
4. Understand the role and importance of governance, public administration through Kautilya's ArthaShastra
5. Take up a detailed study of some of these topics and explore their application potential

Unit I: Importance of ancient Indian knowledge, Ancient Indian Culture, Introduction to the Four Vedas, Baudhha school of philosophy and Jain School of philosophy; Indian Religions, Wisdom through: Ramayana, Shrimad Bhagwad Geeta, prominent art forms and occupational skills (07 Hrs)

UnitII:Number system and units of measurement, The concept of zero and its importance, decimal system, measurement of time, distance and weight, Town planning and architecture, irrigation and water management, dyes and painting technology, VastuShastra-the science of architecture, amazing stone architectures of temples in India, Metals and metal working technology, iron and steel in India (08 Hrs)

Unit III: Impact of yoga way of life on emotional intelligence, Ayurveda: definition of health, tridoshas-relationship to health, dinacharya - daily regimen for wealth and wellness, surgical techniques, disease management: diagnostic techniques, sleep and food- importance to health, drugs and physical therapy (07Hrs)

Unit IV: Governance and public administration: Kautilya's Arthashastra-governance and administration, Trading in ancient India, ways of travelling and business, ancient Indian ports (08 Hrs)

Text Books:

1. Introduction to Indian Knowledge System: Concepts and Applications by B.Mahadevan,Vinayak R. Bhat and Nagendra P. R. N., PHI Learning Private Limited, 2022.
2. Kapur K and Singh A. K (Eds) 2005). Indian Knowledge Systems, Vol. 1. Indian Institute of Advanced Study, Shimla. Tatvabodh of sankaracharya, Central chinmay mission trust, Bombay, 1995.

Reference Books:

1. Indian Knowledge System: Introduction & Prospects by Acharya Shreyas Kurhekar, HVPM Amravati, 2024.
2. Collection of Vedas (Rigveda, Shukla Yajurveda, Krishna Yajurveda [7 volumes], Samveda, Atharva Veda [5 volumes]), by Brahmarshi Maha Mahopadhyaya Pandit Shreepad Damodar Satvalekar, Publisher: Swadhyaya mandal, Pardi(Balsad),Printer: Samvad Trade prints,1005, Sadashiv Peth,Pune-411030.
3. Collection of Four Vedas (Rigveda Samhita,Yajurveda Samhita,Samveda Samhita,AtharvaVeda Samhita), by Pandit Shri Ram Sharma Acharya, Motilal Banarasidass.
4. Nair,Shantha N.Echoes of Ancient Indian Wisdom, New Delhi:Hindology Books,2008.
5. Shrimad valmiki Ramayan (2Volumes), Sanskrit Text With Translation, Gita Press, Gorakhpur.
6. Bhagvad Gita As It Is English New Edition Hardcover–1January 2019, by His Divine Grace A.C. Bhaktivedanta Swami Prabhupada (Author).
7. Srimad Bhagavad Gita (English) (TattvaVivechani) (Gita Press,Gorakhpur)–6July, 2022 by Gita Press:: Gorakhpur (Author).
8. SK Das,The education system of Ancient hindus, Gyan publication house, India.
9. B.L.Gupta,Value and istribution system in India, Gyan publication house, India.
10. Reshmi ramdhoni, Ancient Indian Culture and Civilisation, Star publication, 2018.
11. Supriya Lakshmi Mishra,Culture and History of Ancient India (With Special Reference of Sudras), 2020.
12. Om Prakash, Religion and Society in Ancient India, Bhariya Vidhya Prakashan,1985.
13. JAuboyer, Daily Life in Ancient India from Approximately 200 BC to AD 700, Munshiram Manoharlal publication, 1994.
14. D.K.Chakkrabarty, MakkhanLal, History of Ancient India (Set of 5 Volumes), Aryan book International publication, 2014
15. Dr.Girish Nath Jha, Dr.Umesh Kumar Singh and Diwakar Mishra, Science and Technology in Ancient Indian Texts, DK Print World limited,
16. Swami B.B.Vishnu,Vedic Science and History-Ancient Indian's Contribution to the Modern World, gosai publication, 2015.
