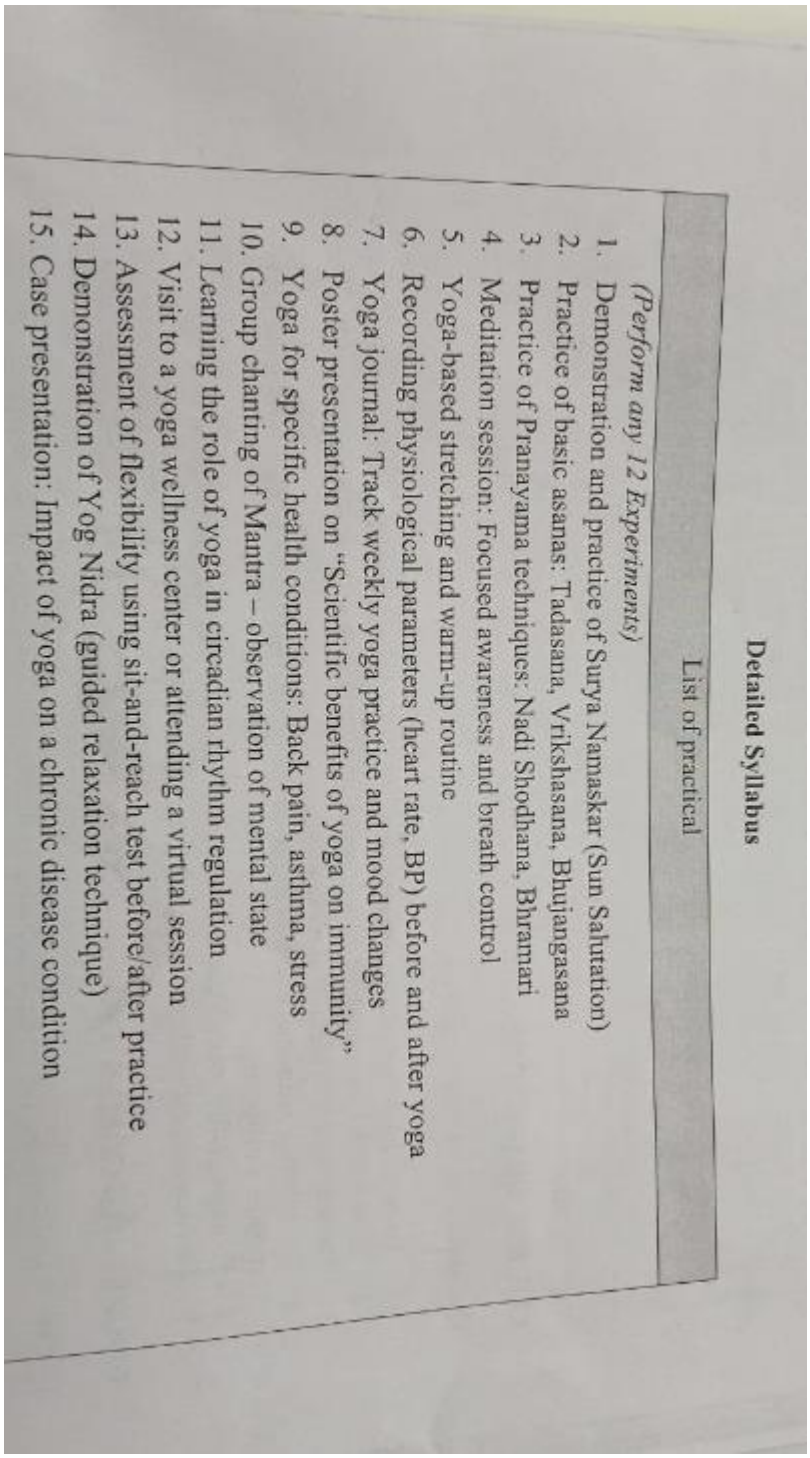
With reference to the changes proposed earlier 15 experiments have been added under the subject heading of 'Mental Health' bringing total experiments to 30, to bring about balance, 15 more experiments/practicals can be added under the list of practical for Yoga and Life Sciences – Course Code (BP312P AEC3)



Detailed Syllabus

List of practical
(Perform any 12 Experiments)
1. Demonstration and practice of Surya Namaskar (Sun Salutation)
2. Practice of basic asanas: Tadasana, Vrikshasana, Bhujangasana
3. Practice of Pranayama techniques: Nadi Shodhana, Bhramari
4. Meditation session: Focused awareness and breath control
5. Yoga-based stretching and warm-up routine
6. Recording physiological parameters (heart rate, BP) before and after yoga
7. Yoga journal: Track weekly yoga practice and mood changes
8. Poster presentation on "Scientific benefits of yoga on immunity"
9. Yoga for specific health conditions: Back pain, asthma, stress
10. Group chanting of Mantra – observation of mental state
11. Learning the role of yoga in circadian rhythm regulation
12. Visit to a yoga wellness center or attending a virtual session
13. Assessment of flexibility using sit-and-reach test before/after practice
14. Demonstration of Yog Nidra (guided relaxation technique)
15. Case presentation: Impact of yoga on a chronic disease condition

Present curriculum is very common and basic. 15 additional experiments ca be added here to bring synchronisation with mental health experiments.

15 Experiments for YOGA & LIFE SCIENCES - COURSE CODE (BP312P AEC3)

Highly effective, advanced supportive therapy designed for an evidence-based curriculum:

Advanced Practicals/ Experiments : Clinical Applications of Yoga.

1.Decompressing Lumbar Radiculopathy (Sciatica) via Traction-Chair Modification

Description: Utilizing a yoga chair and blocks to create passive spinal traction, creating space in the L4-S1 vertebrae to alleviate nerve root compression during forward extensions.

2.Prop-Induced Thoracic Expansion for Obstructive Pulmonary Conditions

Description: Quantitative evaluation of forced vital capacity (FVC) after practicing passive chest-opening over a high-density cork block or firm bolster placed specifically at the T1-T12 thoracic region.

3.Restorative Offloading for Hypothalamic-Pituitary-Adrenal (HPA) Axis Down-Regulation

Description: Implementation of a multi-prop system (bolster under knees, sandbag on abdomen, eye pillow) to induce deep parasympathetic dominance, tracking the reduction of somatic stress markers.

4.Biomechanical Stabilization of Pelvic Tilts in Chronic Low Back Pain (CLBP)

Description: Utilizing pelvic wedges or angled foam blocks under the sacrum to correct anterior/posterior pelvic tilt during supine postures, restoring optimal lumbar lordosis.

5.Assisted Isometric Resistance Training Using Non-Elastic Yoga Straps

Description: Programming safe, isometric muscle activation for individuals with severe muscle wasting or motor-neuron weaknesses by utilizing a looped strap to provide a rigid, unyielding resistance boundary.

6.Prop-Assisted Venous Return Enhancement in Peripheral Vascular Insufficiency

Description: Measuring the physiological impact on lower-limb edema by elevating the legs to exactly 45^\circ or 90^\circ angles using a specialized yoga wall or stacked bolster sequence.

7.Proprioceptive Neuromuscular Facilitation (PNF) with Block-Stabilized Joints

Description: Integrating advanced PNF stretching patterns (contract-relax) where a yoga block acts as a static, unmoving fulcrum to isolate specific target muscle groups safely.

8.Cervical Spine Realignment Protocols Using Varied Blanket Gradients

Description: Studying the ergonomic impact of customized, rolled cotton blankets under the cervical lordotic curve to prevent hyperextension during supine relaxation techniques.

9.Baroreceptor Reflex Stimulation in Hypertension via Inverted Prop Support

Description: Utilizing a specialized yoga chair or bolster setup for supported inversions (Setu Bandhasana) to gently trigger the baroreceptors, encouraging a natural reduction in resting blood pressure.

10.Prop-Mediated Balance Training for Vestibular Rehabilitation

Description: Utilizing unstable foam pads or low-profile yoga balance wheels to challenge and retrain the vestibular system and ankle proprioceptors in a controlled environment.

11.Sensory Deprivation and Somatosensory Integration via Weighted Props

Description: Clinical application of heavy sandbags (3-5\text{ kg}) placed on the proximal femur heads during Savasana to ground the central nervous system in patients suffering from sensory processing disorders or severe anxiety.

12.Mitigating Joint Hyperextension in Ehlers-Danlos / Hypermobility Spectrum Disorders

Description: Teaching students how to utilize strategically placed micro-blocks or folded blankets to act as physical "braking systems," preventing joints from locking past a safe 180^\circ plane.

13.Asymmetrical Prop Profiling for Structural Scoliosis Mitigation

Description: Designing and applying asymmetrical propping strategies (e.g., placing a thin wedge under only one side of the pelvis or rib cage) to temporarily balance convex spinal curvatures during seated practices.

14.Gastrointestinal Motility Optimization via Prop-Supported Torsional Compression

Description: Utilizing a rolled blanket firmly against the ascending and descending colon during supported twists to mechanically assist peristalsis and alleviate chronic idiopathic constipation.

15.Quantitative Case Design: Prop-Substitution Protocol for Post-Surgical Rehabilitation

Description: Formulating a strict, phase-based clinical protocol where a patient transitions from 100% prop-dependence to independent movement over a multi-week timeline, evaluating joint range of motion (ROM) at each milestone.