

**DIPLOMA CURRICULUM OF
BEAUTY AND CULTURE
(THIRD YEAR)
(5th Semester)**

(To be implemented from 2026-27)

Prepared by;



**National Institute of Technical Teachers' Training & Research Kolkata
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Vetted by:

Domain experts from Polytechnics of Odisha



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PROGRAMME TITLE: BEAUTY CULTURE

SEMESTER - V

| SL. No | Category of Course | Code No | Course Title | Study Scheme | | | Evaluation Scheme | | | | Total Marks | Credis | |
|--------------|------------------------------|---|--|---|---------------------|----------|-------------------|------------|------------------------|-----------|-------------|------------|------------------------|
| | | | | Pre-requisite | Contact Hours/ week | | | Theory | | Practical | | | |
| | | | | | L | T | P | End Exam | Progressive Assessment | End Exam | | | Progressive Assessment |
| 1 | Programme Core | BCPC301 TH:1 | Yoga Therapy | | 3 | 0 | 0 | 70 | 30 | - | | 100 | 3 |
| 2 | | BCPC303 TH:2 | Advance Skin & Hair Therapy | | 3 | 0 | 0 | 70 | 30 | - | | 100 | 3 |
| 4 | | BCPC305 PR:1 | Yoga Therapy Lab | | 0 | 0 | 4 | - | | 15 | 35 | 50 | 2 |
| 5 | | BCPC307 PR:2 | Advanced Skin & Hair Therapy LAB | | 0 | 0 | 4 | - | | 15 | 35 | 50 | 2 |
| 6 | | BCPC309 PR:3 | Hair Dressing-III Lab | | 0 | 0 | 4 | | | 15 | 35 | 50 | 2 |
| 7 | | Programme Elective | BCPE301 (Any one) TH:3 | (A)Skin Treatment (B)Advanced Facial | | 3 | 0 | 0 | 70 | 30 | - | | 100 |
| 8 | BCPE303 (Any one) TH:4 | | (A)Ayurveda Massage & Panchakarma (B)Machine Treatment (C) Hair Dressing-III | | 3 | 0 | 0 | 70 | 30 | - | | 100 | 3 |
| | Open Elective | Open Elective - I OE301 (Any one) TH:5 | (A)Universal Human Values (B)Leadership and Management Skills (C)Professional Skills | | 3 | 0 | 0 | 70 | 30 | - | - | 100 | 3 |
| 9 | Summer Internship | SI301 | SUMMER INTERNSHIP II* | | 0 | 0 | 0 | - | | 15 | 35 | 50 | 2 |
| 10 | Major Project | PR301 | MAJOR PROJECT | | 0 | 0 | 4 | - | | 15 | 35 | 50 | 2 |
| TOTAL | | | | | 15 | 0 | 16 | 350 | 150 | 75 | 175 | 750 | 25 |

*3-4-week internship after 4th Semester

Assessment to be done, credit to be carried over

*The best of 2 IA conducted in a subject out of 20 marks to be considered. Assignment/ quiz etc. of 10 marks to be treated as part of IA. Besides this, Monthly Test to be conducted for each subject. Sessional Marks shall be total of the performance of individual different jobs/ experiments in a subject throughout the semester. Club/Innovation/ Idea Tinkering Activities etc. shall be encouraged to be performed by students beyond the above stipulated hours.

Following may be suggested:

Courses under ES category to be included in the 1st year

A. In Semester – I

- Design Thinking 0 0 2 1C

B. In Semester – II

- Programming for Problem Solving 2 0 4 4C

Bridge Courses for Skill enhancement (Essential if MEME implemented)

A. After First Year:

The candidate should pass following two additional Skill Courses (ITI Level) to qualify for Certification.

1. Basic Haircut
2. Hair Spa & Hair Treatments

B. After Second Year:

The candidate should pass following two additional Skill Courses (Diploma Level) to qualify for Diploma.

1. Massage & Spa Therapy
2. Makeup and Hairstyle Artistry

OE 301 /302/304 Open Electives (Any three) 3 - 0 - 0 and 3C

Bundle I

- (A) Soft Computing Techniques
- (B) Artificial Intelligence
- (C) Artificial Intelligence & Machine Learning
- (D) Internet of Things(content available)
- (E) Web Designing and Multimedia Technology
- (F) Virtual Reality

Bundle II

- (A) Project Management
- (B) Product Design (content available)
- (C) Operations Research
- (D) Mechatronics (content available)
- (E) Robotic Cosmetics
- (F) Industrial Robots (content available)
- (G) 3-D Printing

Bundle III

- (A) Economic Policies in India
- (B) Engineering Economics & Accountancy
- (C) Cyber Security Laws, Standards and IPR
- (D) Introduction to E-Governance
- (E) Disaster Management
- (F) Sustainable Development

Bundle IV

- (A) Universal Human Values
- (B) Leadership and Management Skills
- (C) Professional Skills
- (D) Foreign language Skills (any one language: German, Japanese, French ...)

Following may be suggested:

Courses under ES category to be included in the 1st year

A. In Semester – I

- Design Thinking 0 0 2 1C

B. In Semester – II

- Programming for Problem Solving 2 0 4 4C

Bridge Courses for Skill enhancement (Essential if MEME implemented)

A. After First Year:

The candidate should pass following two additional Skill Courses (ITI Level) to qualify for Certification.

1. Basic Haircut
2. Hair Spa & Hair Treatments

B. After Second Year:

The candidate should pass following two additional Skill Courses (Diploma Level) to qualify for Diploma.

1. Massage & Spa Therapy
2. Makeup and Hairstyle Artistry

V SEMESTER

TH:1- YOGA THERAPY

| | | | | |
|----------------------------|---|------------|-------------------------|-----------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPC301 |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory | | : 45Hrs | | Progressive Assessment : 30 |
| Pre-Requisite | | | | |
| Credit | | : 3 | | Category of Course: PC |

Rationale:

Understanding various diseases and disorders is essential for promoting holistic health and well-being. This module aims to equip students with comprehensive knowledge of common physical and mental health conditions, along with their causes, symptoms, and impacts on daily life. Emphasis will be placed on evidence-based yogic practices as complementary and preventive approaches to health management. By integrating traditional wisdom with modern scientific insights, students will develop the ability to use yoga as a therapeutic tool to support healing, enhance physical and mental resilience, and promote overall wellness.

Learning Outcomes:

Upon successful completion of this module, students will be able to:

- 1. Identify and classify** common physical and mental health disorders based on etiology, symptoms, and clinical characteristics.
- 2. Demonstrate an understanding** of the physiological and psychological impacts of various diseases on the human body.
- 3. Analyze the role of lifestyle factors** such as diet, stress, and physical inactivity in the onset and progression of diseases.
- 4. Explain the principles of yoga therapy** and its application in managing specific disorders using a scientific and evidence-based approach.
- 5. Design appropriate yogic intervention plans** tailored to individual needs and health conditions.
- 6. Practice and instruct therapeutic yoga techniques** including asanas, pranayama, meditation, and relaxation methods suitable for different disorders.
- 7. Evaluate the effectiveness of yogic practices** in disease prevention, rehabilitation, and quality of life improvement through case studies and research findings.
- 8. Demonstrate ethical awareness** and sensitivity while dealing with individuals suffering from chronic or acute health conditions.

9. Integrate modern health science with traditional yoga practices to promote holistic well-being in diverse populations.

10. Develop communication and counseling skills to guide individuals in adopting yoga as a lifestyle for health management and disease prevention.

| Unit No. | Title | Subtopics | Key Content Points | Class Hours |
|----------|--|---|---|-------------|
| 1.0 | Skin and Its Disorders | 1.1 Study of Skin 1.2 Common Skin Disorders 1.3 Symptoms 1.4 Types of Skin Diseases 1.5 Causes 1.6 Modern Treatments 1.7 Yogic Management | - Skin anatomy & function- Disorders: Eczema, Psoriasis, Acne, Fungal infections- Stress-skin connection- Yoga for skin health (detox asanas, pranayama) | 7 hrs |
| 2.0 | Headache and Thyroid Disorders | 2.1-2.7 as above | - Tension & migraine headaches- Hypo/Hyperthyroidism- Hormonal imbalance- Yoga Nidra, Shoulder stand, Ujjayi | 7 hrs |
| 3.0 | Heart and Circulatory Disorders | 3.1-3.8 including respiratory issues (Bronchitis, Eosinophilia, Tonsillitis) | - Cardiac anatomy- Hypertension, arrhythmia- Breathing disorders- Yoga practices: Anulom-Vilom, meditation, supported asanas | 7 hrs |
| 4.0 | Gastrointestinal Disorders and Back Pain | 4.1 - 4.10 | - Indigestion, IBS, liver issues- Back pain: spondylitis, sciatica- Spinal alignment through asana- Breathing for digestion | 7 hrs |
| 5.0 | Female Reproductive Health Disorders | 5.1 - 5.9 | - Leucorrhoea, PCOD- Hormonal stress- Yoga for menstrual balance, pelvic health- Pelvic floor strengthening | 7 hrs |
| 6.0 | Urinary and Kidney Disorders | 6.1 - 6.9 | - UTI, kidney stones- Elimination and detox yoga- Hydration and yogic diet | 5 hrs |
| 7.0 | Sudarshana Kriya (Art of Living Method) | 7.1 Unique breathing technique | - Steps of Sudarshan Kriya- Benefits: stress reduction, immune boost- Research studies and practice | 5 hrs |

Reference Books

| S.No. | Title of the Book | Author(s) | Publisher | Key Areas Covered |
|-------|---|--|-----------------------------------|--|
| 1 | Yogic Management of Common Diseases | Dr. Swami Karmananda | Bihar School of Yoga | Yogic techniques for disease management, integrative health approach |
| 2 | Pranayama Aur Sudarshan Kriya | François Gautier & Namrata Gautier | Sri Sri Publications | Breathing techniques, Sudarshan Kriya for physical and mental health |
| 3 | The Art of Stress-Free Living | Sri Sri Ravi Shankar | Sri Sri Publications | Stress management through meditation, breathing, and spiritual practices |
| 4 | Yoga Therapy: Theory and Practice | Mark Stephens | North Atlantic Books | Anatomy-informed yoga therapy for various health conditions |
| 5 | The Heart of Yoga: Developing a Personal Practice | T. K. V. Desikachar | Inner Traditions International | Therapeutic approach to personal practice and teaching methodology |
| 6 | Light on Pranayama | B. K. S. Iyengar | HarperCollins | In-depth science of pranayama for therapeutic and daily practice |
| 7 | Yoga as Medicine | Timothy McCall, M. D. | Bantam Books | Medical conditions and yoga prescriptions from a physician's perspective |
| 8 | Structural Yoga Therapy | Mukunda Stiles | Red Wheel/Weiser | Anatomy-based yoga therapy, diagnosis, and rehabilitation |
| 9 | Scientific Keys: The Key Muscles of Yoga | Ray Long, MD | Bandha Yoga | Visual anatomy for yoga therapy and alignment |
| 10 | Yoga for Wellness | Dr. R. Nagarathna & Dr. H. R. Nagendra | Swami Vivekananda Yoga Prakashana | Yoga therapy for lifestyle diseases and mental health from SVYASA |
| 11 | Yoga for the Three Stages of Life | Srivatsa Ramaswami | Inner Traditions | Lifespan-based yoga therapy integrating Vinyasa Krama and therapeutic sequencing |
| 12 | The Science of Yoga | William J. Broad | Simon & Schuster | Scientific basis of yoga's physiological and psychological benefits |

.TH:2- ADVANCE SKIN & HAIR THERAPY

| | | | | |
|----------------------------|---|---|-------------------------|-----------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPC303 |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory : 45Hrs | | | | Progressive Assessment : 30 |
| Pre-Requisite : Nil | | | | Category of Course: PC |
| Credit : 3 | | | | |

RATIONALE:

The **Advanced Skin & Hair Therapy** course has been thoughtfully developed to address the evolving global demands in the fields of cosmetic dermatology, trichology, and holistic wellness. With rapid advancements in aesthetic science and an increased focus on personal grooming and skin health, there is a significant need for highly trained professionals equipped with both scientific knowledge and clinical expertise.

This course provides an in-depth understanding of the **anatomy, physiology, and pathophysiology** of skin and hair, forming the scientific backbone required to assess, diagnose, and treat a wide range of conditions. Through a rigorous combination of **theoretical modules and hands-on training**, students gain the practical proficiency necessary to perform modern, evidence-based skin and hair therapies using advanced equipment and globally accepted techniques.

Designed to meet **international occupational standards** in the beauty and wellness sector, the curriculum emphasizes **ethical considerations**, including patient consent, hygiene, safety protocols, and professional conduct—essential for working in regulated environments such as dermatology clinics, aesthetic centers, and medical spas worldwide.

Furthermore, the course supports **entrepreneurial development** by equipping students with the skills to plan, establish, and manage their own skin and hair therapy practices. The program nurtures **cultural competence**, enabling students to effectively treat clients with diverse skin and hair types across various geographies and climates.

By aligning with global benchmarks (such as CIDESCO, ITEC, and CIBTAC), the course not only ensures high employability across **salons, wellness resorts, hospitals, and cosmetic dermatology practices** but also provides a strong foundation for those pursuing international certifications or further specialization in aesthetic medicine.

In essence, this program develops **competent, ethical, and globally competitive professionals** who are prepared to lead and innovate in the dynamic and expanding industry of advanced skin and hair care.

- **LEARNING OUTCOMES:**
- After successful completion of the course, students will be able to:

- 1. Demonstrate a clear understanding of the anatomy and physiology of skin and hair,** including ethnic and genetic variations relevant to global practice.
- 2. Analyze common and advanced skin and hair conditions** and recommend scientifically appropriate therapies or referrals to healthcare professionals.
- 3. Perform advanced skin and hair care treatments** using modern equipment and techniques with precision, safety, and client satisfaction in mind.
- 4. Design personalized treatment plans** based on client needs, skin/hair analysis, and contraindications, maintaining international best practices.
- 5. Implement hygiene, sanitization, and infection control protocols** as per global health and safety standards (e.g., WHO, OSHA).
- 6. Apply ethical principles in practice,** including informed consent, client confidentiality, cultural sensitivity, and professional conduct.
- 7. Manage client consultation processes effectively,** including history taking, skin/hair analysis, record-keeping, and post-treatment care.
- 8. Establish and operate a professional skincare and hair therapy clinic or wellness center,** incorporating principles of entrepreneurship, marketing, and client retention.
- 9. Utilize eco-friendly, dermatologically safe, and globally approved products** and practices, promoting sustainability in the beauty and wellness industry.
- 10. Pursue continual professional development** by engaging with emerging trends, technologies, and certifications in the international skin and hair care sector.

DETAILED COURSE CONTENTS

| Unit No. | Title | Sub-Topics & Detailed Contents | Key Points of Contents | Hours |
|----------|---|---|---|-------|
| I | Fundamentals of Skin and Hair Structure | 1. Anatomy and physiology of the skin - layers (epidermis, dermis, hypodermis) 2. Skin appendages - hair, nails, sweat and sebaceous glands 3. Hair structure - follicle, bulb, shaft, and root 4. Hair growth cycle - anagen, catagen, telogen phases 5. Skin types - oily, dry, sensitive, combination, aging 6. Common disorders - acne, eczema, dandruff, psoriasis, hair loss 7. | <ul style="list-style-type: none"> • Understand human integumentary anatomy • Classify skin & hair types • Identify common dermatological conditions • Practice basic care techniques | 9 |

| Unit No. | Title | Sub-Topics & Detailed Contents | Key Points of Contents | Hours |
|----------|--|---|--|-------|
| II | Advanced Skin Care Therapies | Basics of skin/hair care - cleansing, moisturizing, protection 1. Deep facial cleansing, exfoliation, steaming, masks, moisturization 2. Anti-aging treatments - microneedling, Botox, dermal fillers, peels 3. Treating skin conditions - acne, hyperpigmentation, rosacea, scars 4. Laser therapies - resurfacing, hair removal, tattoo/pigment treatment 5. Cosmeceutical actives - retinoids, peptides, AHA/BHA, hyaluronic acid | <ul style="list-style-type: none"> • Hands-on facial and clinical treatments • Learn non-invasive and minimally invasive protocols • Understand dermatological-grade actives | 9 |
| III | Hair Restoration and Therapeutic Care | 1. Causes of hair loss - hormonal, genetic, environmental 2. Diagnosis and topical/systemic treatment of alopecia 3. Hair transplant - FUE and FUT techniques 4. PRP (Platelet-Rich Plasma) therapy - preparation, use, aftercare 5. Scalp care - detox, dandruff, dermatitis 6. Conditioning treatments - keratin, protein, hair spas | <ul style="list-style-type: none"> • Master hair regrowth techniques • Apply non-surgical therapies like PRP • Address scalp health and disorders • Deliver advanced conditioning treatments | 9 |
| IV | Cosmetic Dermatology & Professional Ethics | 1. Overview of non-invasive cosmetic dermatology - trends and tech 2. Ethics in clinical practice - patient rights, confidentiality, consent 3. Skin/hair assessment - consultation protocols, photography 4. Handling adverse reactions - safety procedures, patch testing 5. Industry regulations - licenses, global certifications (CIDESCO/ITEC/CIBTAC) | <ul style="list-style-type: none"> • Understand ethical and legal standards globally • Build safe and compliant practice • Manage patient interactions and risk control | 9 |
| V | Business Management in Therapy Practice | 1. Setting up a clinic - planning, legal permits, licenses 2. Marketing & branding - social media, client acquisition, customer service 3. Financial management - pricing, budgeting, inventory control 4. Supplier & product sourcing - | <ul style="list-style-type: none"> • Gain business and entrepreneurial skills • Learn client retention strategies • Understand financial planning for practice growth | 9 |

| Unit No. | Title | Sub-Topics & Detailed Contents | Key Points of Contents | Hours |
|----------|-------|--|------------------------|-------|
| | | selection of professional-grade tools and products 5. Career growth - workshops, networking, certifications | | |

Reference Books

- **"Cosmetic Dermatology: Principles and Practice"** by Zoe Diana Draelos, McGraw-Hill Education.
- **"Advanced Skincare and Dermatology"** by Lynne B. F., Springer.
- **"Textbook of Dermatology"** by R. S. S. V. P. K. Murthy, CBS Publishers & Distributors.
- **"Hair Transplantation"** by Walter Unger, Quality Medical Publishing.
- **"Practical Dermatology for Primary Care"** by Sima Jain, Springer.
- **"Cosmetic Science and Technology: Theoretical Principles and Applications"** by Ralf J. P. K., Wiley-VCH.
- **"The Business of Beauty: A Guide to Cosmetic Therapy"** by Nadine B. W., Business Books International

PR:1- YGA THERAPY LAB

| | | | | | |
|----------------------------|---|----------------|------------------------|-----------------------------|------------------------------|
| L | T | P | Total Marks: 50 | <u>Code: BCPC305</u> | |
| 0 | 0 | 4 | | | |
| Total Contact Hours | | : 60Hrs | | | Laboratory Assessment |
| Practical | | : 60Hrs | | | End Exam : 15 |
| Credit | | : 2 | | Progressive Assessment : 35 | |

RATIONALE:

Understanding the multifaceted nature of human health—encompassing both physical and mental dimensions—is a critical component of contemporary wellness education. This practical module is designed to provide students with in-depth and evidence-informed knowledge of prevalent physical and psychological disorders, their etiology, clinical manifestations, and their impact on quality of life.

Recognizing the global shift toward integrative and preventive healthcare models, this module emphasizes the application of yogic science as a complementary therapy. Students will explore the therapeutic role of yoga in managing and preventing a wide range of health conditions. Practical sessions will be grounded in classical yogic principles and supported by modern scientific research, ensuring a balanced and interdisciplinary approach.

Through experiential learning and case-based practices, students will:

Identify key signs and symptoms of common health conditions.

Understand the physiological and psychological mechanisms affected by these conditions.

Apply relevant yogic techniques—including asanas, pranayama, meditation, and relaxation methods—as supportive interventions.

Evaluate the benefits and limitations of yogic therapy in clinical and non-clinical settings.

This module not only fosters theoretical understanding but also cultivates practical competency in using yoga as a holistic health management tool. Graduates will be equipped to contribute effectively in wellness, education, and healthcare sectors, promoting global health and well-being in alignment with the WHO's integrative health strategies.

LEARNING OUTCOMES:

After successful completion of this module, students will be able to:

1. Identify and describe the causes, signs, and symptoms of common physical and mental health conditions affecting individuals across different age groups.

2. Explain the physiological and psychological mechanisms underlying various health disorders using integrative biomedical and yogic perspectives.

3. Analyze the impact of chronic illnesses and psychological stress on daily functioning and overall quality of life.

4. Demonstrate proficiency in selecting and performing appropriate yogic practices (asanas, pranayama, meditation, kriyas) tailored to specific health conditions.

5. Evaluate the effectiveness of yoga-based interventions as complementary therapies using evidence-based approaches and case studies.

6. Design personalized yoga-based wellness plans for individuals with specific health conditions, considering contraindications and safety measures.

7. Integrate traditional yogic knowledge with modern health science to support holistic healing and preventive healthcare.

8. Apply ethical and professional principles in delivering yoga therapy with sensitivity to diverse cultural, physical, and emotional needs.

9. Develop enhanced self-awareness and empathy through reflective practice and understanding of the mind-body connection.

10. Contribute to community and global health initiatives by promoting yoga as a sustainable and inclusive tool for physical and mental resilience.

DETAILS COURSE CONTENTS

| Week | Title | Subtopics / Disorders Covered | Focused Yogic Practices | Hours |
|------|----------------------------------|-----------------------------------|---|-------|
| 1 | Introduction to Therapeutic Yoga | Orientation to therapeutic goals | - Joint loosening- Surya Namaskar (basic)- Shavasana | 4 hrs |
| 2 | Skin Disorders | Acne, eczema, psoriasis | - Detoxifying asanas (Twists, Matsyasana)- Sheetalī, Sheetkari Pranayama- Yoga Nidra | 4 hrs |
| 3 | Skin Disorders (continued) | Stress-induced conditions | - Facial yoga- Trataka (eye cleansing)- Meditation for skin clarity | 4 hrs |
| 4 | Headache Disorders | Migraine, sinus, tension headache | - Makarasana, Shashankasana- Bhrumari, Anulom-Vilom- Ice-pack yoga therapy demo | 4 hrs |
| 5 | Thyroid Disorders | Hypo- & hyperthyroidism | - Sarvangasana, Matsyasana- Ujjayi pranayama- Guided meditation | 4 hrs |

| Week | Title | Subtopics / Disorders Covered | Focused Yogic Practices | Hours |
|------|----------------------------------|-------------------------------------|---|-------|
| 6 | Heart & Respiratory Disorders | Hypertension, asthma, bronchitis | - Seated twist, Tadasana- Deep breathing, Kapalbhathi- Om chanting | 4 hrs |
| 7 | Heart & Circulatory (continued) | Eosinophilia, tonsillitis | - Dhanurasana, Ardha Matsyendrasana- Jal Neti demo- Breathing drills | 4 hrs |
| 8 | Digestive Disorders | Gastroenteritis, constipation | - Vajrasana, Pawanmuktasana series- Agnisar Kriya- Kapalbhathi | 4 hrs |
| 9 | Back Pain Management | Slip disc, sciatica, spondylitis | - Bhujangasana, Makarasana, Setubandhasana- Passive stretching- Yoga wheel demo | 4 hrs |
| 10 | Female Disorders | Leucorrhoea, PCOD, irregular cycles | - Supta Baddha Konasana- Pelvic-focused yoga- Restorative yoga with props | 4 hrs |
| 11 | Reproductive System (continued) | Hormonal balancing | - Pranayama (Anulom-Vilom, Ujjayi)- Yoga Nidra (women's health theme)- Sound healing (AUM chanting) | 4 hrs |
| 12 | Urinary & Kidney Disorders | UTI, kidney stones | - Marjariasana, Ardha Matsyendrasana- Fluid balance practices- Shankhprakashalana introduction | 4 hrs |
| 13 | Sudarshana Kriya | Art of Living method | - Introduction to Sudarshan Kriya- Ujjayi, Bhastrika- Guided full Kriya practice | 4 hrs |
| 14 | Revision and Group Demonstration | All major disorders | - Group practice for 2 disorders- Peer teaching and corrections- Individual presentation prep | 4 hrs |
| 15 | Assessment & Practical Exam | Evaluation of techniques | - Final demonstration- Viva questions on practices- Feedback and correction session | 4 hrs |

PR:2- ADVANCE SKIN & HAIR THERAPY LAB

| | | | | |
|------------------------------------|---|---|------------------------|------------------------------|
| L | T | P | Total Marks: 50 | Code: BCPC307 |
| 0 | 0 | 4 | | |
| Total Contact Hours : 60Hrs | | | | Laboratory Assessment |
| Practical : 60Hrs | | | | End Exam : 15 |
| Credit : 2 | | | | Progressive Assessment : 35 |

RATIONALE:

In response to the growing global demand for scientifically informed, evidence-based skin and hair care, the Advanced Skin & Hair Therapy Laboratory has been established to bridge the gap between theoretical knowledge and practical expertise in dermatology, cosmetology, and trichology. The contemporary beauty and wellness industry is increasingly driven by innovation, safety, and precision—requiring professionals who are not only technically proficient but also clinically aware.

This state-of-the-art laboratory is designed to provide students with immersive, hands-on training in a wide spectrum of therapeutic and cosmetic procedures, ranging from foundational skin care techniques to advanced modalities such as microneedling, chemical exfoliation, Platelet-Rich Plasma (PRP) therapy, and non-invasive aesthetic interventions. By engaging with such protocols, students gain essential competencies in client assessment, treatment planning, hygiene control, and post-treatment care.

Globally, skin and hair care are no longer viewed solely through a cosmetic lens but as integral components of holistic well-being. With rising incidences of dermatological disorders, hair loss conditions, and increased awareness around skin health across age groups, trained professionals with robust practical knowledge are essential for both clinical and wellness settings. Furthermore, the shift toward personalized, minimally invasive therapies requires practitioners to understand the physiological, technological, and ethical dimensions of modern treatments.

The laboratory thus plays a pivotal role in fostering a workforce that aligns with international standards of practice, ensuring graduates are employable in diverse contexts—including dermatology clinics, medical spas, cosmetic research centers, wellness tourism hubs, and independent practice. It also lays the groundwork for advanced research, innovation, and cross-disciplinary collaborations in aesthetic science, aligning with Sustainable Development Goal 3: Good Health and Well-being.

In essence, the Advanced Skin & Hair Therapy Laboratory is a vital infrastructure investment that empowers learners to evolve into competent, ethical, and globally competitive professionals—capable of meeting the evolving needs of both clients and the skin-hair care industry.

Learning Outcomes: After completion of the Lab the students will be able to

1. Clinical Competency in Diagnosis and Treatment Planning

Demonstrate the ability to accurately assess various skin and hair conditions and develop appropriate, individualized treatment protocols.

2. Mastery of Advanced Aesthetic Techniques

Exhibit proficiency in performing advanced cosmetic procedures such as microneedling, chemical peels, dermaplaning, mesotherapy, and PRP therapy using industry-standard equipment and protocols.

3. Integration of Dermatological Science and Practice

Apply foundational knowledge of dermatology and trichology to practical treatments, ensuring a science-based, client-focused approach.

4. Adherence to Global Hygiene and Safety Standards

Follow international protocols related to hygiene, sterilization, and client safety to prevent cross-contamination and ensure clinical excellence.

5. Critical Thinking and Problem Solving

Analyze case studies and respond effectively to complex client scenarios involving contraindications, treatment failures, or sensitive skin/hair conditions.

6. Ethical and Culturally Sensitive Client Interaction

Communicate professionally and empathetically with diverse clients, respecting ethical boundaries, informed consent, and cultural sensitivities.

7. Documentation and Record-Keeping Skills

Maintain accurate treatment records, progress notes, and consent forms in line with international standards of clinical documentation.

8. Proficiency in Use of Technology and Equipment

Operate advanced diagnostic and therapeutic devices (e.g., dermatoscopes, skin analyzers, microneedling pens) with precision and confidence.

9. Preparedness for Global Employment or Entrepreneurship

Develop the skill set necessary to work in international dermatology clinics, luxury spas, wellness resorts, or start independent practices with global appeal.

10. Commitment to Lifelong Learning and Innovation

Engage in continuous professional development by staying updated with emerging trends, research, and innovations in aesthetic science and skin-hair therapy.

List of Experiments

| Week | Class No. | Unit | Practical Topic | Objectives / Skills Gained | Tools/Products Required |
|------|-----------|------|--|--|---|
| 1 | 1 | I | Skin Analysis and Skin Type Identification | Learn to examine skin structure, identify skin | Magnifying lamp, mirror, skin analysis form |

| Week | Class No. | Unit | Practical Topic | Objectives / Skills Gained | Tools/Products Required |
|------|-----------|------|---|---|---|
| | | | | types using visual/touch techniques. | |
| | 2 | I | Hair Analysis and Scalp Examination | Identify hair type, texture, scalp conditions. | Trichoscope, combs, scalp chart |
| | 3 | I | CTMP Routine: Cleansing, Toning, Moisturizing, Protection | Practice daily care regime based on skin type. | Cleansers, toners, moisturizers, sunscreen |
| | 4 | I | Client Consultation & Record Keeping | Practice client intake, consent forms, record keeping. | Client consultation forms, pen, folders |
| 2 | 5 | I | Identification & Classification of Skin/Hair Conditions | Learn to recognize acne, eczema, dandruff, alopecia, etc. | Case studies, visuals, charts |
| | 6 | I | Hygiene & Salon Safety: Sterilization and Sanitation | Maintain hygiene using global salon safety protocols. | UV sterilizer, sanitizers, disposable tools |
| | 7 | I | Facial Massage Techniques | Practice effleurage, petrissage, tapotement. | Massage creams, towels, headbands |
| | 8 | II | Basic Facial (Normal Skin) | Perform a basic facial using correct steps. | Cleanser, scrub, mask, steamer |
| 3 | 9 | II | Oily Skin Facial Treatment | Treat oily/acne-prone skin using purifying facial steps. | Clay mask, salicylic products, steam |
| | 10 | II | Dry Skin Facial Treatment | Moisturizing techniques for dry/dehydrated skin. | Cream-based cleansers, hydrating serums |
| | 11 | II | Combination Skin Treatment | Learn to use multi-masking & zone treatments. | Multiple masks, blotting papers |

| Week | Class No. | Unit | Practical Topic | Objectives / Skills Gained | Tools/Products Required |
|------|-----------|------|---|---|---|
| | 12 | II | Sensitive Skin Protocol | Treat rosacea, redness; avoid irritants. | Calming masks, hypoallergenic products |
| 4 | 13 | II | Deep Exfoliation Techniques: Scrub, Enzyme, AHA Peel | Use manual and chemical exfoliants safely. | AHA, papaya enzyme mask, microbead scrubs |
| | 14 | II | Chemical Peel Application: Glycolic, Lactic | Apply peels with pre/post-care protocol. | Peeling agents, neutralizer, cotton pads |
| | 15 | II | Microneedling Demonstration (on dummy skin) | Understand technique, hygiene, and aftercare. | Dermaroller, dummy skin, antiseptic gel |
| | 16 | II | Mask Application Techniques (Sheet, Clay, Cream, Gel) | Match mask type to skin condition. | Variety of masks, brush applicators |
| 5 | 17 | II | LED Therapy Demonstration (with precautions) | Learn effects of red/blue/green LED lights. | LED machine, goggles, consent form |
| | 18 | II | Laser Hair Removal - Observational Practical | Observe trained technician, note laser protocols. | Laser device, protective wear |
| | 19 | II | Tattoo Removal / Pigmentation Laser Observation | Learn technique and skin responses. | Q-switched laser, goggles |
| | 20 | III | Scalp Detox Therapy | Use exfoliants and steaming for scalp cleansing. | Detox serums, scalp brush, steam machine |
| 6 | 21 | III | Dandruff Control Treatment | Apply anti-fungal, anti-flake therapies. | Zinc-based products, tea tree oil, scalp massager |
| | 22 | III | PRP Therapy Demonstration (Video-Based) | Understand blood drawing, centrifuge use, and injection method. | AV resources, PRP kit (dummy) |
| | 23 | III | Hair Spa - Step-by-Step | Perform nourishing therapy using massage and mask. | Hair spa cream, steamer, brush |

| Week | Class No. | Unit | Practical Topic | Objectives / Skills Gained | Tools/Products Required |
|------|-----------|------|---|--|--|
| | 24 | III | Keratin Smoothing (Live Demo / Practice) | Apply smoothing product, follow straightening steps. | Flat iron, keratin products, gloves |
| 7 | 25 | III | Hair Botox Therapy (Optional Alternative) | Understand protein-rich, deep repair treatments. | Hair botox kit, caps, heat source |
| | 26 | III | Hair Transplantation Observation (Video + Diagram Explanation) | Identify difference between FUE and FUT. | Educational video, transplant model |
| | 27 | III | Head Massage for Hair Growth Stimulation | Perform effective oiling and pressure techniques. | Herbal oils, head towels |
| | 28 | IV | Client Consultation Role Play - Skin/Hair Cases | Practice ethical and effective consultation. | Case sheets, scripted clients |
| 8 | 29 | IV | Infection Control & First Aid in Salon | Prepare emergency response for burns, allergies. | First aid kit, CPR dummy, emergency manual |
| | 30 | IV | Consent & Documentation for Cosmetic Procedures | Fill forms and explain procedures ethically. | Sample consent forms, privacy notice |
| | 31 | IV | Patch Test for Sensitivity | Perform behind-ear or forearm patch tests. | Hair dye, AHA, gloves |
| | 32 | IV | Non-Invasive Skin Tightening Techniques (Radiofrequency/Ultrasound - Observation) | Understand usage, patient expectations. | RF/US device, instructional guide |
| 9 | 33 | IV | Managing Client Complaints & Expectations | Role play and reporting procedures. | Scenarios, evaluation sheets |
| | 34 | IV | Cultural Sensitivity in Dermatology & Hair Therapy | Understand respecting body image, beliefs. | Discussion module, case examples |
| | 35 | IV | Review: Laser, Microneedling, Peels | Reinforce technique understanding. | Flashcards, revision checklist |

| Week | Class No. | Unit | Practical Topic | Objectives / Skills Gained | Tools/Products Required |
|-------|-----------|----------------------------|--|---|--------------------------------------|
| | 36 | V | Setting Up a Clinic - Layout Design | Design safe and functional treatment room. | Chart papers, sample layouts |
| 10 | 37 | V | Licensing and Legal Compliance Documentation | List state/national requirements. | Sample license forms, checklist |
| | 38 | V | Pricing and Service Package Design | Create packages for various client needs. | Pricing templates, catalogues |
| | 39 | V | Social Media & Client Promotion Campaign | Develop Instagram posts, brochures. | Canva, templates, phones |
| | 40 | V | Branding and Logo Creation Workshop | Design personal brand identity. | Canva/Photoshop, examples |
| 11 | 41 | V | Client Retention Activities - Loyalty Program Design | Create reward cards, referrals. | Sample cards, CRM templates |
| | 42 | V | Inventory and Cost Management Simulation | Track product usage and cost control. | Inventory forms, calculator |
| | 43 | V | Vendor Selection & Product Evaluation | Choose quality products from catalogs. | Product brochures, comparison charts |
| | 44 | V | Attending Webinars / Online Trend Reports (Global Insights) | Analyze current international trends. | Internet, notebook |
| 12-15 | 45-60 | REVISION & PRACTICAL EXAMS | Review practicals per unit. Internal assessment, case-based simulation & skill evaluation. | Full setup for facial/hair/spa therapy stations | |

PR:3- HAIR DRESSING -III, LAB

| | | | | |
|------------------------------------|---|---|------------------------|------------------------------|
| L | T | P | Total Marks: 50 | Code: BCPC309 |
| 0 | 0 | 4 | | |
| Total Contact Hours : 60Hrs | | | | Laboratory Assessment |
| Practical : 60Hrs | | | | End Exam : 15 |
| Credit : 2 | | | | Progressive Assessment : 35 |

RATIONALE: The practical component of the **Advanced Hair Technology** course is meticulously designed to bridge the gap between theoretical knowledge and real-world application. In today's globally evolving beauty industry, there is a growing demand for professionals who are not only knowledgeable in cosmetology theory but are also skilled in executing advanced hair treatments with precision, safety, and creativity.

This hands-on module emphasizes **salon-standard training** through demonstrations, live practice, and skill drills that reflect **industry-relevant scenarios**. The course introduces students to advanced chemical, cutting, and styling techniques that are used in high-end salons, fashion shows, editorial shoots, wellness clinics, and even medical aesthetic centers.

Students are trained using **international-quality tools, products, and equipment**, ensuring they meet the expectations of premium clients across the globe. Core skills such as chemical waving, professional bleaching, creative cutting, and modern styling are practiced under close supervision to ensure technique accuracy, client safety, and service customization.

Special attention is given to:

Client consultation and diagnosis

Precision techniques in haircutting and styling

Safe and effective use of chemical treatments

Product selection based on hair type and desired outcomes

Professional ethics, sanitation, and hygiene standards

By the end of the practical course, students will demonstrate the **ability to work independently**, deliver **client-centric services**, and **adapt to the latest trends** and innovations in hair fashion. These competencies are vital for placement in **premium salons, spa chains, beauty clinics, fashion houses**, or for launching their own **entrepreneurial ventures** in cosmetology.

This practical syllabus ensures that graduates are not only job-ready but **globally competitive** and equipped to thrive in the dynamic world of beauty and wellness

Learning Outcomes: After completion of the Lab the students will be able to

- 1. Analyze and assess scalp and hair types** to determine suitable chemical, styling, or cutting treatments based on individual client needs.
- 2. Demonstrate precision in executing permanent waving techniques**, including rod selection, lotion application, neutralization, and curl setting based on global salon practices.
- 3. Perform safe and effective hair bleaching and lightening procedures** using various techniques such as frosting, streaking, and tipping while minimizing hair damage and scalp irritation.
- 4. Apply advanced haircutting methods** including layering, asymmetry, slicing, and texturizing to create personalized, fashion-forward hairstyles.
- 5. Utilize modern styling products** (mousse, sprays, gels) and tools (blow dryers, irons, rollers) to create lasting and innovative hairstyles suited for editorial, bridal, or commercial purposes.
- 6. Conduct professional client consultations**, analyze client expectations, and prepare personalized service plans using ethical and safety guidelines.
- 7. Adopt industry-relevant sanitation and hygiene standards** to ensure client safety and maintain compliance with international cosmetology norms.
- 8. Select and manage hair products and equipment** effectively, understanding their composition, usage, advantages, disadvantages, and precautions.
- 9. Troubleshoot common hair service issues** (e.g., allergic reactions, hair breakage, uneven results) and provide corrective solutions with confidence.
- 10. Display professional behavior, communication, and business awareness**, preparing for employment in premium salons, beauty chains, or as an independent stylist or entrepreneur.

Details Contents:

| S.No | Title | Practical Contents / Skills to be Developed | Industry-Based Key Skills | Practical Classes (Hours) |
|------|-----------------------------|--|---|---------------------------|
| 1.0 | Chemical / Permanent Waving | - Demonstrate scalp and hair analysis before perming - Selection and use of appropriate rods for desired curl pattern - Application of waving lotion and wrapping techniques - Use of heat vs cold methods - Application of neutralizer - Timing, rinsing, and | <ul style="list-style-type: none"> ✓ Perform cold wave perming professionally ✓ Customize wave pattern for client's face and hair type ✓ Maintain hygiene and safety | 15 |

| S.No | Title | Practical Contents / Skills to be Developed | Industry-Based Key Skills | Practical Classes (Hours) |
|------|-----------------------------------|--|---|---------------------------|
| 2.0 | Hair Bleaching / Lightening | <p>after-care procedures - Client consultation and allergy test execution</p> <p>- Scalp and strand testing for lightening suitability -</p> <p>Application of various types of bleaches (cream, powder, oil-based) - Techniques: frosting cap, streaking with foils, tipping with brush - Post-lightening care including neutralization and toning - Safety practices in handling peroxide and ammonia-based products</p> <p>- Practice on mannequin and live models - Execute layered cuts (short, long, and razor layers) -</p> | <p>✓ Bleach hair with precision using modern tools ✓ Offer safe, client-specific lightening results ✓ Prevent hair and scalp damage</p> | 15 |
| 3.0 | Advanced Hair Cutting Techniques | <p>Perform fashion cuts like asymmetrical bob and zigzag -</p> <p>Apply thinning, slicing, slithering techniques - Use of professional scissors, razors, and thinning shears - Client consultation, sectioning, and face shape analysis</p> <p>- Blow-drying techniques for volume and direction control -</p> | <p>✓ Create modern, commercial hairstyles ✓ Use advanced tools and texturizing methods ✓ Adapt cuts to client personality and trends</p> | 15 |
| 4.0 | Advanced Hair Styling (up to 4.4) | <p>Style creation using mousse for lift and hold - Use of working spray to maintain shape during styling - Finishing with styling spray for longevity - Use of brushes, rollers, straighteners, curling irons - Hair sectioning and design matching client needs and events</p> | <p>✓ Deliver long-lasting, salon-standard styles ✓ Choose and apply suitable styling products ✓ Style for bridal, editorial, and casual looks</p> | 15 |

TH:3(A)- SKIN TREATMENT

| | | | | |
|----------------------------|---|---|-------------------------|--------------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPE301(A) |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory : 45Hrs | | | | Progressive Assessment : 30 |
| Pre-Requisite : Nil | | | | Category of Course: PE |
| Credit : 3 | | | | |

RATIONALE:

The **Skin Treatment** course aims to provide students with an in-depth understanding of the various skin care treatments used in both clinical and aesthetic dermatology. The primary goal of this course is to equip students with practical skills to diagnose skin conditions, recommend appropriate treatments, and perform advanced skin therapies. With the rise of aesthetic medicine and the increasing demand for skin care professionals, understanding and applying both basic and advanced techniques in skin treatment is essential for students entering the healthcare or beauty industries. This course also emphasizes the importance of safety protocols, ethical standards, and professional conduct when dealing with clients and patients.

LEARNING OUTCOMES: After completion of the course, the students will be able to

- Explain and Classify Skin Types and Conditions
- Explain Advanced Skin Treatments
- Design Customized Treatment Plans
- Ensure Safety and Hygiene
- Explain Ethical and Legal Standards

DETAILED COURSE CONTENTS

| Unit No. | Topic/Sub-Topic | Allotted Time (Hours) |
|----------|---|-----------------------|
| I | Introduction to Skin and Skin Care Basics <ul style="list-style-type: none"> • Anatomy and Physiology of the Skin <ul style="list-style-type: none"> • Layers of the skin (epidermis, dermis, hypodermis) • Skin functions (protection, sensation, thermoregulation) • Common skin disorders (acne, eczema, psoriasis, etc.) • Skin Types and Characteristics <ul style="list-style-type: none"> • Oily, dry, sensitive, and combination skin • Identifying skin type and selecting appropriate treatments • Basic Skin Care <ul style="list-style-type: none"> • Cleansing, exfoliation, moisturizing, and sun protection | 9 |

| | | |
|-----|---|---|
| | <ul style="list-style-type: none"> • Daily skincare routines and product selection | |
| II | <p>Advanced Skin Care Treatments</p> <ul style="list-style-type: none"> • Chemical Peels <ul style="list-style-type: none"> • Types of chemical peels (superficial, medium, and deep) • Indications, procedure, and aftercare • Treating acne scars, pigmentation, and aging skin • Microdermabrasion <ul style="list-style-type: none"> • Techniques and tools used for exfoliation • Benefits for skin rejuvenation and texture improvement • Facial Treatments <ul style="list-style-type: none"> • Hydrating, anti-aging, and brightening facials • Steam, massage, mask application techniques | 9 |
| III | <p>Skin Rejuvenation and Anti-Aging Therapies</p> <ul style="list-style-type: none"> • Anti-Aging Treatments <ul style="list-style-type: none"> • Wrinkle reduction methods (Botox, dermal fillers) • Collagen boosters and skin tightening treatments • Laser Skin Rejuvenation <ul style="list-style-type: none"> • Types of lasers (CO2, Erbium, Fractional) • Indications and contraindications • Photofacials and LED Light Therapy <ul style="list-style-type: none"> • Uses of light therapy for pigmentation, acne, and anti-aging • Safety protocols and post-treatment care | 9 |

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|------------------|--|----------|
| <p>IV</p> | <p>Skin Treatments for Specific Disorders</p> <ul style="list-style-type: none"> • Acne and Acne Scar Treatments <ul style="list-style-type: none"> • Treatment options (topical treatments, chemical peels, laser therapy) • Management of active acne and post-acne scars • Hyperpigmentation and Melasma <ul style="list-style-type: none"> • Causes and types of pigmentation • Treatments for hyperpigmentation (chemical peels, laser therapy, topical treatments) • Skin Conditions (Eczema, Psoriasis, Rosacea) <ul style="list-style-type: none"> • Clinical understanding and treatment approaches • Homecare and professional treatments for chronic conditions | <p>9</p> |
| <p>V</p> | <p>Safety, Ethics, and Client Management in Skin Treatment</p> <ul style="list-style-type: none"> • Client Consultation and Treatment Planning <ul style="list-style-type: none"> • Conducting skin assessments and selecting appropriate treatments • Building client rapport and understanding their needs • Safety Protocols and Hygiene <ul style="list-style-type: none"> • Sterilization of equipment, infection control measures • Managing allergic reactions and side effects • Ethical and Professional Standards <ul style="list-style-type: none"> • Maintaining patient confidentiality and consent • Understanding the legal and ethical aspects of skin treatments | <p>9</p> |

Reference Books

- "Dermatology for Skin of Color" by Susan C. Taylor, MD
- "Cosmetic Dermatology: Principles and Practice" by Zoe Diana Draelos
- "Practical Dermatology for Primary Care" by Sima Jain
- "Textbook of Aesthetic Dermatology" by Dr. M. K. Bansal
- "Skin Care and Cosmetic Ingredients Dictionary" by M. Varinia D. H.

TH:3(B)- ADVANCED FACIAL

| | | | | |
|----------------------------|---|---|-------------------------|--------------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPE301(B) |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory : 45Hrs | | | | Progressive Assessment : 30 |
| Pre-Requisite : Nil | | | | Category of Course: PE |
| Credit : 3 | | | | |

RATIONALE:

The **Advanced Facial** subject focuses on providing students with the knowledge and practical skills required to perform advanced facial treatments, including skin rejuvenation, anti-aging therapies, and specialized facial care techniques. It equips students with a solid understanding of facial anatomy, skin conditions, and treatment protocols, ensuring they can offer personalized care for clients with various skin types and conditions. The subject emphasizes both theoretical knowledge and practical skills, aiming to train students to deliver professional treatments while adhering to hygiene, safety, and ethical standards.

- **LEARNING OUTCOMES:** After completion of the course, the students will be able to
- Explain the basic structure and functions of facial skin, aiding in effective treatment planning
- Evaluate complex facial procedures like deep cleansing, exfoliation, specialized masks, and facial massages tailored to various skin types.
- Apply advanced anti-aging treatments such as Botox, dermal fillers, and laser therapies for skin rejuvenation.
- Explain hygiene standards, implement safety protocols, and provide proper post-treatment care for clients
- Analysis professional skin assessments and design customized facial treatment plans based on individual needs.

DETAILED COURSE CONTENTS

| Unit No. | Topic/Sub-Topic | Allotted Time (Hours) |
|----------|--|-----------------------|
| I | Introduction to Facial Anatomy and Skin Physiology <ul style="list-style-type: none"> • Anatomy of the Face and Skin <ul style="list-style-type: none"> • Structure of facial skin, muscles, and connective tissue • Blood circulation, nerve supply, and lymphatic drainage in the face • Skin Physiology and Functions <ul style="list-style-type: none"> • Layers of the skin: Epidermis, Dermis, and Hypodermis • Skin regeneration and repair processes • Factors Affecting Skin Health | 9 |

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| | <ul style="list-style-type: none"> • Internal and external factors like diet, environmental exposure, and genetics | |
| II | <p>Skin Types and Conditions in Facial Treatments</p> <ul style="list-style-type: none"> • Skin Types and Characteristics <ul style="list-style-type: none"> • Oily, dry, combination, sensitive, and normal skin types • Assessing skin type and its relevance to facial treatment selection • Common Skin Disorders <ul style="list-style-type: none"> • Acne, pigmentation, wrinkles, aging signs, rosacea, and others • Diagnosis and classification of skin conditions for treatment • Facial Skin Treatment Modalities <ul style="list-style-type: none"> • Selecting treatments based on skin type and condition (e.g., exfoliation, hydration, anti-aging treatments) | 9 |
| III | <p>Advanced Facial Techniques and Procedures</p> <ul style="list-style-type: none"> • Deep Cleansing and Exfoliation <ul style="list-style-type: none"> • Techniques for deep pore cleansing (extraction, enzyme peels) • Chemical and physical exfoliation methods • Facial Massage Techniques <ul style="list-style-type: none"> • Swedish, lymphatic drainage, and acupressure massage for facial rejuvenation • Techniques to enhance blood circulation and relaxation • Mask Application <ul style="list-style-type: none"> • Different types of facial masks (hydrating, anti-aging, brightening) • Application methods and their effects on different skin types | 9 |

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| <p>IV</p> | <p>Specialized Facial Treatments for Anti-Aging and Skin Rejuvenation</p> <ul style="list-style-type: none"> • Anti-Aging Facial Treatments <ul style="list-style-type: none"> • Introduction to Botox, dermal fillers, and mesotherapy • Techniques for wrinkle reduction and skin tightening • Facial Rejuvenation with Lasers <ul style="list-style-type: none"> • Types of lasers used for skin rejuvenation (CO2, fractional, and IPL) • Indications, procedure, and post-treatment care • Platelet-Rich Plasma (PRP) Therapy for Skin Rejuvenation <ul style="list-style-type: none"> • PRP extraction, application, and benefits for skin regeneration • Indications for use in facial treatments | <p>9</p> |
| <p>V</p> | <p>Client Consultation, Safety, and Aftercare in Facial Treatments</p> <ul style="list-style-type: none"> • Client Consultation and Skin Assessment <ul style="list-style-type: none"> • Conducting a thorough consultation and skin analysis • Understanding client history and personal preferences • Safety Protocols in Facial Treatments <ul style="list-style-type: none"> • Infection control, equipment sterilization, and hygiene practices • Managing adverse reactions and allergies • Aftercare and Maintenance <ul style="list-style-type: none"> • Providing clients with proper aftercare instructions • Home skincare recommendations and maintaining treatment results | <p>9</p> |

Reference Books

- "Milady's Skin Care and Cosmetic Ingredients Dictionary" by Natalia Michalun and M. Varinia D.
- "Dermatology for Skin of Color" by Susan C. Taylor
- "Cosmetic Dermatology: Principles and Practice" by Zoe Diana Draelos
- "Textbook of Aesthetic Dermatology" by Dr. M.K. Bansal
- "Facial Aesthetics: Concepts and Clinical Diagnosis" by B.R. Sahoo and Rajeev Ranjan

TH:4(A)- AYURVEDA MASSAGE & PANCHAKARMA

| | | | | |
|----------------------------|---|---|-------------------------|------------------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPE303(A) |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory : 45Hrs | | | | Progressive Assessment : 30 |
| Pre-Requisite : Nil | | | | Category of Course: PE |
| Credit : 3 | | | | |

RATIONALE:

The **Ayurveda Massage & Panchakarma** subject offers a comprehensive understanding of ancient Ayurvedic healing practices that focus on restoring balance in the body, mind, and spirit. These therapies, rooted in the ancient Indian system of Ayurveda, aim to achieve holistic health and wellness through natural, non-invasive techniques.

LEARNING OUTCOMES: After completion of the course, the students will be able to

- Explain Ayurvedic Principles
- Explain the therapeutic effects of Ayurvedic massage on the body, including improving circulation, detoxification, stress relief, and joint mobility.
- Explain the indications, contraindications, and preparation required for each Panchakarma treatment.
- Analysis the effectiveness of Ayurvedic massage and Panchakarma therapies

DETAILED COURSE CONTENTS

| Unit No. | Topic/Sub-Topic | Allotted Time (Hours) |
|----------|--|-----------------------|
| I | Introduction to Ayurveda and its Principles <ul style="list-style-type: none"> • 1.1. Overview of Ayurveda <ul style="list-style-type: none"> ○ Definition and origin of Ayurveda ○ Philosophical foundations: Tridosha (Vata, Pitta, Kapha), Pancha Mahabhutas (Five Elements), Saptadhatus (Seven Tissues) • 1.2. Basic Ayurvedic Concepts <ul style="list-style-type: none"> ○ Dosha, Dhatu, Mala, and Agni ○ Ayurveda's approach to health and disease • 1.3. Ayurveda in Modern Context <ul style="list-style-type: none"> ○ Integration of Ayurveda with contemporary wellness practices ○ Importance of Ayurveda in preventive healthcare • 1.4. Introduction to Ayurvedic Healing Therapies <ul style="list-style-type: none"> ○ Massage and Panchakarma as therapeutic tools ○ Role of Ayurveda in rejuvenation and detoxification | 9 |
| II | Ayurveda Massage Techniques <ul style="list-style-type: none"> • 2.1. Types of Ayurveda Massage <ul style="list-style-type: none"> ○ Abhyanga (Traditional Oil Massage) ○ Udvaartana (Powder Massage) ○ Shirodhara (Oil Drip Therapy) ○ Pinda Sweda (Bolus Massage) • 2.2. Benefits of Ayurveda Massage | 9 |

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|-----|--|---|
| | <ul style="list-style-type: none"> ○ Physical, mental, and emotional benefits ○ Treatment of various conditions like stress, arthritis, fatigue, etc. ● 2.3. Massage Oils and Ingredients <ul style="list-style-type: none"> ○ Ayurvedic oils: Sesame oil, Coconut oil, medicated oils (Bala Ashwagandha, Kshirbala, etc.) ○ Herbal ingredients and their properties ● 2.4. Technique and Procedure <ul style="list-style-type: none"> ○ Step-by-step process of each massage technique ○ Correct body posture and hand movements ○ Dos and Don'ts during a massage | |
| III | <p>Introduction to Panchakarma Therapies</p> <ul style="list-style-type: none"> ● 3.1. Panchakarma: An Overview <ul style="list-style-type: none"> ○ Definition and significance of Panchakarma in Ayurveda ○ The five therapeutic procedures: Vamana (Emesis), Virechana (Purgation), Basti (Enema), Nasya (Nasal therapy), Raktamokshana (Bloodletting) ● 3.2. Indications and Contraindications <ul style="list-style-type: none"> ○ Conditions treated by Panchakarma ○ When and how to apply Panchakarma therapies ○ Contraindications and precautions ● 3.3. Preparatory Processes for Panchakarma <ul style="list-style-type: none"> ○ Purvakarma: Preparatory procedures (Oleation and Sweating) ○ Snehana (Oleation), Swedana (Sweating) ○ Importance of dietary modifications during preparation | 9 |
| IV | <p>Practical Application of Panchakarma</p> <ul style="list-style-type: none"> ● 4.1. Vamana (Therapeutic Emesis) <ul style="list-style-type: none"> ○ Indications, procedure, and post-therapy care ○ Medicinal substances used for emesis ● 4.2. Virechana (Therapeutic Purgation) <ul style="list-style-type: none"> ○ Indications, procedure, and post-therapy care ○ Medicines used for purgation ● 4.3. Basti (Therapeutic Enema) <ul style="list-style-type: none"> ○ Types of Basti: Anuvasana Basti, Niruha Basti ○ Indications, procedure, and post-therapy care ● 4.4. Nasya (Nasal Therapy) <ul style="list-style-type: none"> ○ Indications and procedure ○ Role of Nasya in treating respiratory conditions ● 4.5. Raktamokshana (Bloodletting) <ul style="list-style-type: none"> ○ Techniques: Leech therapy, Syringe therapy ○ Indications and contraindications | 9 |
| V | <p>Health & Safety Practices in Ayurveda Massage and Panchakarma</p> <ul style="list-style-type: none"> ● 5.1. Hygiene and Sanitation <ul style="list-style-type: none"> ○ Importance of cleanliness in therapy rooms ○ Proper handling of oils, herbs, and equipment | 9 |

| | | |
|--|---|--|
| | <ul style="list-style-type: none"> • 5.2. Professional Ethics in Ayurveda Therapy <ul style="list-style-type: none"> ○ Ethical considerations in Ayurveda practice ○ Professional conduct, confidentiality, and patient care • 5.3. Ayurveda's Role in Preventive Healthcare <ul style="list-style-type: none"> ○ Ayurveda as a holistic approach to health ○ Lifestyle modifications and dietary guidance • 5.4. Case Studies and Practical Training <ul style="list-style-type: none"> ○ Practical application of Ayurveda massage and Panchakarma ○ Case studies of common disorders treated with Ayurvedic therapies | |
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Reference Books

- "Ayurvedic Massage" by Dr. Vasant Lad
"The Complete Guide to Panchakarma: The Ayurvedic Cleansing and Rejuvenation Program" by Dr. Robert Svobod
"Textbook of Ayurveda: Fundamental Principles of Ayurveda" by Dr. Vasant Lad
"Practical Ayurveda: A Day-to-Day Guide to Living the Ayurvedic Life" by Sivananda Yoga Vedanta Center
"Ayurvedic Panchakarma: The Science of Detoxification" by Dr. Sunil V. Joshi

TH:4(B)- MACHINE TREATMENT

| | | | | |
|----------------------------|---|---|-------------------------|--------------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPE303(B) |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory : 45Hrs | | | | Progressive Assessment : 30 |
| Pre-Requisite : Nil | | | | Category of Course: PC |
| Credit : 3 | | | | |

RATIONALE:

The **Introduction to Machine Treatment & Basic Principles** unit serves as the foundational module for students to understand the significance and applications of therapeutic machines in various medical and wellness fields. As technology continues to evolve, machine treatments are becoming integral components in the rehabilitation and treatment of musculoskeletal and neurological conditions. The knowledge of different machines and their operating principles is vital for students aiming to enter fields such as physical therapy, sports rehabilitation, and wellness practices.

LEARNING OUTCOMES: After completion of the course, the students will be able to

- Explain machine treatments and their significance in physical therapy, rehabilitation, and wellness.
- Explain various therapeutic machines
- Discuss the underlying principles of machine operation
- Apply Safety Protocols in Machine Treatments
- Apply knowledge of machine types to suggest appropriate treatments based on patient needs and conditions.

DETAILED COURSE CONTENTS

| Unit No. | Topic/Sub-Topic | Allotted Time (Hours) |
|----------|--|-----------------------|
| I | <p>Introduction to Machine Treatment & Basic Principles</p> <ul style="list-style-type: none"> • Introduction to Machine Treatment: <ul style="list-style-type: none"> • Definition and significance in therapy and rehabilitation. • Historical development of machine treatments. • Applications in physical therapy, wellness, and rehabilitation. • Basic Principles of Machine Operation: <ul style="list-style-type: none"> • Understanding the working principles of therapeutic machines (e.g., electrical stimulation, heat therapy, cold therapy). • Overview of different types of machines (e.g., ultrasound therapy, TENS, iontophoresis, etc.). • Basic electrical and mechanical principles involved in machine treatments. • Safety Measures and Standards: <ul style="list-style-type: none"> • Patient safety during machine treatment. • Standard protocols and precautions. • Calibration and maintenance of therapeutic machines. | 9 |

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| | <ul style="list-style-type: none"> • Types of Machines and Equipment Used: <ul style="list-style-type: none"> • Introduction to machines like electrical stimulators, ultrasound machines, traction devices, and more. • Understanding the role of each machine in therapy. | |
| II | <p>Electrical Therapy Machines</p> <ul style="list-style-type: none"> • Introduction to Electrical Therapy: <ul style="list-style-type: none"> • Overview of electrical stimulation in therapeutic treatment. • Types of electrical currents: direct current (DC), alternating current (AC), and pulsed current. • Transcutaneous Electrical Nerve Stimulation (TENS): <ul style="list-style-type: none"> • Working principle of TENS. • Indications, contraindications, and uses of TENS. • Technique and electrode placement for effective treatment. • Interferential Current Therapy (IFC): <ul style="list-style-type: none"> • Introduction and principle of Interferential current. • Benefits of IFC in pain relief and muscle stimulation. • Application methods and safety protocols. • Electrical Muscle Stimulation (EMS): <ul style="list-style-type: none"> • Mechanism of action of EMS. • Uses in rehabilitation and muscle strengthening. • Contraindications and precautions. • Iontophoresis: <ul style="list-style-type: none"> • Principle and working of iontophoresis. • Drug delivery through the skin. • Applications in reducing inflammation and pain relief. | 9 |
| III | <p>Heat and Cold Therapy Machines</p> <ul style="list-style-type: none"> • Introduction to Thermal Therapies: <ul style="list-style-type: none"> • Difference between heat and cold therapies. • Physiological effects of heat and cold on the body. • Heat Therapy Machines: <ul style="list-style-type: none"> • Types of heat application: moist heat, dry heat, and infrared radiation. | 9 |

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| | <ul style="list-style-type: none"> • Hot packs, infrared lamps, and paraffin baths. • Applications in treating muscle stiffness, pain relief, and relaxation. <ul style="list-style-type: none"> • Cold Therapy Machines: <ul style="list-style-type: none"> • Types of cold application: ice packs, cryotherapy, and cold compression units. • Use of cold therapy in acute injury management, swelling reduction, and inflammation control. • Safety measures during cold therapy to prevent frostbite and skin damage. <ul style="list-style-type: none"> • Cryotherapy and its Applications: <ul style="list-style-type: none"> • Mechanisms and therapeutic benefits of cryotherapy. • Local and whole-body cryotherapy systems. • Indications for cryotherapy in pain and sports injuries. | |
| IV | <p>Ultrasound and Laser Therapy Machines</p> <ul style="list-style-type: none"> • Ultrasound Therapy: <ul style="list-style-type: none"> • Principles of ultrasound waves and their therapeutic effects. • Therapeutic uses of ultrasound: deep tissue healing, muscle strain, and scar tissue breakdown. • Types of ultrasound machines and their application methods. • Indications and Contraindications of Ultrasound Therapy: <ul style="list-style-type: none"> • Conditions treated with ultrasound therapy: tendonitis, bursitis, soft tissue injuries. • Contraindications and precautions when using ultrasound therapy. • Laser Therapy: <ul style="list-style-type: none"> • Principles of low-level laser therapy (LLLT). • Mechanism of action of laser on cells and tissues (photobiomodulation). • Applications of laser therapy for wound healing, pain relief, and tissue regeneration. • Laser Equipment and Safety: <ul style="list-style-type: none"> • Overview of laser types and their specific therapeutic benefits. • Safety standards and precautions when using laser therapy. | 9 |

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|---|---|---|
| | <ul style="list-style-type: none"> • Applications in musculoskeletal disorders, wound healing, and inflammation reduction. | |
| V | <p>Advanced Machine Treatments and Rehabilitation Techniques</p> <ul style="list-style-type: none"> • Introduction to Advanced Machine Treatments: <ul style="list-style-type: none"> • Overview of emerging technologies in rehabilitation (e.g., cryotherapy chambers, robotic-assisted therapy, electrical nerve stimulators). • Benefits of advanced machines in pain management, tissue regeneration, and neurological rehabilitation. • Robotic-Assisted Therapy: <ul style="list-style-type: none"> • Introduction to robotic devices used in physical rehabilitation. • Mechanism of action and benefits for patients with neurological disorders, stroke recovery, and musculoskeletal injuries. • Shockwave Therapy: <ul style="list-style-type: none"> • Principles and types of shockwave therapy (e.g., extracorporeal shock wave therapy). • Uses in treating calcific tendonitis, plantar fasciitis, and other soft tissue conditions. • Application techniques and patient care during treatment. • Whole-Body Vibration Therapy: <ul style="list-style-type: none"> • Mechanism of whole-body vibration therapy (WBV). • Benefits for muscle strength, bone density, and rehabilitation. • Indications and contraindications for WBV therapy. • Biofeedback and Neurostimulation: <ul style="list-style-type: none"> • Overview of biofeedback machines used in therapy. • Applications in pain management, muscle re-education, and neurological rehabilitation. | 9 |

Reference Books

- Physical Medicine and Rehabilitation: A Clinical Approach" by Randall L. Braddom
- Therapeutic Modalities in Rehabilitation" by William E. Prentice
- Introduction to Physical Therapy and Patient Skills" by Michael A. Pagliarulo
- Physical Agents in Rehabilitation: From Research to Practice" by MaryLynn A. A. L. Hines, Steven A. D. Hines

TH:4(C)- Hair Dressing-III

| | | | | |
|----------------------------|---|---------|-------------------------|--------------------------------|
| L | T | P | Total Marks: 100 | Course Code: BCPE303(C) |
| 3 | 0 | 0 | | Theory Assessment |
| Total Contact Hours | | | | End Term Exam : 70 |
| Theory | | : 45Hrs | | Progressive Assessment : 30 |
| Pre-Requisite : Nil | | | | |
| Credit : 3 | | | Category of Course: PC | |

RATIONALE:

Hairdressing is a vital component of the global beauty and wellness industry, merging artistic expression with scientific understanding to enhance individual identity, confidence, and cultural aesthetics. As a dynamic profession that spans across fashion, entertainment, wellness, and personal care sectors, hairdressing requires a solid foundation in hair science, cutting-edge techniques, client management, and global trends.

This course is meticulously designed to equip students with comprehensive knowledge and practical skills in haircutting, hair styling, hair coloring, and hair texturing. Through an in-depth study of the structure and texture of hair, students gain an understanding of how to work with various hair types, ethnicities, and conditions using professional tools and salon-standard procedures. The curriculum integrates both traditional and contemporary practices, including permanent waving, straightening, and chemical treatments, ensuring students are prepared to meet the evolving demands of diverse clientele.

With the increasing emphasis on personal grooming and style in both urban and rural markets, skilled hairdressers are in high demand globally. Moreover, the rise of wellness tourism, fashion-forward economies, and inclusive beauty movements has expanded the scope of hairdressing from a basic trade to a specialized career path requiring creativity, precision, hygiene, and communication.

Aligned with international best practices and standards such as those set by **WorldSkills**, **CIDESCO**, and **City & Guilds**, this course fosters hands-on expertise, customer service ethics, and entrepreneurship. It also provides opportunities for learners to pursue careers in salons, spas, film and media industries, cruise lines, and independent businesses.

By integrating practical experience with theoretical insight, the Hairdressing course aims to develop globally competent professionals who contribute to the aesthetics and well-being of individuals while upholding safety, hygiene, and sustainability in beauty practices.

Learning Outcomes: After completion of the Lab the students will be able to

1. Demonstrate Mastery of Hair Cutting Techniques

Perform a variety of haircuts with precision, including basic, advanced, and creative styles, tailored to individual face shapes, hair types, and fashion trends.

2. Analyze Hair Structure and Texture

Assess the physical and chemical characteristics of different hair types to determine suitable cutting, coloring, and treatment procedures.

3. **Perform Hair Coloring and Chemical Treatments**

Apply permanent, semi-permanent, and fashion hair coloring techniques along with texturizing methods such as straightening, perming, and smoothing, ensuring safe chemical usage.

4. **Create Professional Hair Designs and Styles**

Design and execute classic to contemporary hairdos, including bridal, editorial, and event styles using blow drying, braiding, upstyling, and heat styling tools.

5. **Ensure Hygiene, Safety, and Sanitation**

Follow international hygiene protocols, sterilization practices, and health safety standards in all hairdressing operations.

6. **Use Professional Implements and Equipment Efficiently**

Demonstrate proficiency in the selection, handling, and maintenance of salon tools and electrical equipment such as scissors, clippers, curling irons, and hair steamers.

7. **Communicate Effectively with Clients**

Consult with clients to understand their preferences, provide informed suggestions, and build trust through effective verbal and non-verbal communication.

8. **Solve Hair and Scalp-Related Issues**

Identify common hair and scalp conditions and recommend appropriate salon treatments or referrals, integrating product knowledge and client education.

9. **Adapt Hairdressing Services to Diverse Cultural Needs**

Customize hairdressing practices to meet the aesthetic preferences and hair care requirements of clients from varied cultural and ethnic backgrounds.

10 **Demonstrate Professionalism and Entrepreneurship**

Exhibit workplace ethics, customer service skills, and business awareness, preparing for employment in salons, luxury spas, or self-run enterprises in national and international markets

DETAILED COURSE CONTENTS

| S.No | Title | Subtopics / Detailed Contents | Key Points of the Subject | Classes (Hours) |
|------|-----------------------------|---|--|-----------------|
| 1.0 | Chemical / Permanent Waving | 1.1 History of Permanent Waving 1.2 Perming Theory - Hair structure and chemical response 1.3 Chemistry of Cold Waving - Alkaline & acid-based waving lotions 1.4 Principle Actions - Softening, breaking, and re-forming bonds 1.5 Types of Rods - Straight, concave, spiral 1.6 Wave Pattern Formation - Types and control 1.7 Role of Neutraliser - Fixing the curl pattern 1.8 | • Understand chemical changes in hair structure during waving • Identify suitable rods and patterns for different hair types • Practice safe and effective perming methods | 6 |

| S.No | Title | Subtopics / Detailed Contents | Key Points of the Subject | Classes (Hours) |
|------|----------------------------------|--|---|--|
| 2.0 | Hair Bleaching / Lightening | <p>Advantages & Disadvantages 1.9</p> <p>Safety Precautions - Allergic testing, protective gear, scalp care</p> <p>2.1 Effects of Lighteners - Lifting pigment, structural change</p> <p>2.2 Types - On-scalp/off-scalp, powder, cream, oil-based</p> <p>2.3 Tools & Materials - Brushes, foils, gloves, mixing bowls</p> <p>2.4 Techniques - Frosting, tipping, streaking</p> <p>2.5 Common Issues - Hair damage, scalp irritation, and precautions</p> | <ul style="list-style-type: none"> • Learn product selection for various lightening techniques • Perform bleaching with minimal damage • Troubleshoot issues and offer corrective care | 5 |
| 3.0 | Advanced Hair Cutting Techniques | <p>3.1 Techniques - Blunt cut, point cutting, freehand</p> <p>3.2 Tapering - Gradual blend, clippers/scissors</p> <p>3.3 Layering - Short and long layers</p> <p>3.4 Undercutting - Hidden layers for volume</p> <p>3.5 Slithering - Texturizing long hair</p> <p>3.6 Thinning - Reducing bulk</p> <p>3.7 Asymmetrical Bob - Fashion styling</p> <p>3.8 Notching - Textural depth</p> <p>3.9 Slicing - Face-framing techniques</p> <p>3.10 Zigzag - Creative edges</p> <p>3.11 Thinning (repeat)</p> <p>3.12 Chopping - Chunky layered effects</p> | <ul style="list-style-type: none"> • Master modern haircutting methods • Customize styles for face shapes • Enhance creativity with asymmetry and pattern techniques | 8 |
| 4.0 | Advanced Hair Styling | <p>4.1 Styling with Mousse - Volume & control</p> <p>4.2 Working Spray - Hold while styling</p> <p>4.3 Styling Spray - Final finish</p> <p>4.4 Shining Spray - Glossy appearance</p> <p>4.5 Setting Spray - Long-lasting effect</p> <p>4.6 Hair Gels - Types: wet look, strong hold, curl defining</p> <p>4.7 Texture/Form/Color Change - Using tools and temporary color</p> <p>4.8 Product Advantages & Disadvantages</p> <p>4.9 Precautions - Product usage, heat tools, electrical safety</p> | <ul style="list-style-type: none"> • Gain proficiency in professional styling products • Modify hair form, texture, and finish • Understand safe handling of styling tools and cosmetics | 6 (Only up to 4.4 covered in syllabus) |

TH:5(A)- UNIVERSAL HUMAN VALUES

| | | | | |
|----------------------------|---|---|-------------------------|-------------------------------|
| L | T | P | Total Marks: 100 | Course Code: OE 301(A) |
| 3 | 0 | 0 | | |
| Total Contact Hours | | | | |
| Theory : 45Hrs | | | | End Term Exam 70 |
| | | | | Progressive Assessment 30 |
| Pre-Requisite : Nil | | | | |
| Credit 3 | | | Category of Course: OE | |

RATIONALE:

The Universal Human Values (UHV) course aims to help diploma students develop a strong ethical foundation, nurturing responsible individuals who contribute positively to society. In an era driven by rapid technological advancements, it is crucial for students not only to gain technical expertise but also to cultivate values that promote harmony, respect, and sustainability.

LEARNING OUTCOMES:

After completion of the course, the students will be able to:

- Identify fundamental human aspirations such as happiness and prosperity.
- Differentiate between the self and the body and understand their respective needs.
- Practice self-reflection to improve decision-making, emotional balance, and personal growth.
- Develop respectful and trustworthy relationships within family, friends, and society.
- Explain the role of values like trust, respect, and love in building strong social bonds.
- Promote cooperation and harmony within communities through ethical practices.

DETAILED COURSE CONTENT:

| Unit No. | Topic/Sub-Topic | Allotted Time (Hours) |
|----------|--|-----------------------|
| I | Introduction to Value Education and Human Values - Concept and Need for Value Education - Understanding the importance of value education in personal and professional life, Differentiating between values and skills. Basic Human Aspirations - Exploring fundamental human aspirations: happiness and prosperity, Methods to achieve these aspirations through right understanding and relationships. | 8 |
| II | Harmony in the Human Being - Understanding the Self - Differentiating between the 'Self' (I) and the Body, Understanding the needs of the Self and the Body, Harmony of the Self with the Body - Ensuring the harmony of 'I' with the Body, Practices for mental and physical well-being. | 8 |
| III | Harmony in the Family and Society - Family as the Basic Unit of Society - Understanding values in human relationships, Trust and respect as the foundational values in relationships, Harmony in Society - The concept of an undivided society, Universal human order and world family. | 8 |

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|----|--|---|
| IV | Harmony in Nature and Existence - Interconnectedness in Nature -Understanding the four orders of nature: material, plant, animal, and human, Mutual fulfillment among these orders, Co-existence in Existence - Holistic perception of harmony in existence, Role of human beings in maintaining environmental balance. | 8 |
| V | Professional Ethics - Ethical Human Conduct - Integrating values into professional life, Concept of professional ethics and accountability, Case Studies in Professional Ethics - Analyzing real-life scenarios to understand ethical dilemmas, Developing solutions based on universal human values. | 8 |
| VI | Personal Development and Social Responsibility - Self-Reflection and Self-Exploration - Techniques for self-assessment and personal growth, Setting personal goals aligned with universal values, Social Responsibility - Understanding one's role in society, Participating in community service and social initiatives. | 5 |

REFERENCES:

| | |
|----|--|
| 1. | R. R. Gaur, R. Asthana, G. P. Bagaria, A Foundation Course in Human Values and Professional Ethics, 2nd Revised Edition, Excel Books, New Delhi, 2019. |
| 2. | R. R. Gaur, R. Asthana, G. P. Bagaria, Teachers' Manual for A Foundation Course in Human Values and Professional Ethics, 2nd Revised Edition, Excel Books, New Delhi, 2019. |
| 3. | A. Nagraj, Jeevan Vidya: Ek Parichaya, Amarkantak, 1999. |
| 4. | A. N. Tripathi, Human Values, New Age Intl. Publishers, New Delhi, 2004. |
| 5. | Moral Thinking: An Introduction To Values And Ethics, Vineet Sahu, IIT Kanpur: https://onlinecourses.nptel.ac.in/noc23_hs89/preview |

| | | |
|------------|---|----|
| II | Human Resource Management in Organizations <ul style="list-style-type: none"> • Human Resource Management: Meaning, Nature, Objectives, Scope • Job & Job analysis. • Staff Development: Need and Objectives of Staff Development, Approaches • Training & development • Organizational Development: Components of OD process. • Learning organization | 10 |
| III | Personal disposition, skills & abilities of leaders <ul style="list-style-type: none"> • Self-awareness • Leadership characteristics, traits • Leadership skills & abilities • Emotional intelligence & its components, importance in leadership • Communication skills for effective leadership, barriers to effective communication, Active Listening, Mindful listening. • Leading & Mentorship – Influencing & mentoring | 09 |
| IV | Leader’s role in Motivating, Inspiring and Transformative leadership, nurturing team-work <ul style="list-style-type: none"> • Goal setting & leadership • Transformative Leadership, vision & envisioning • Motivational role of leader in people management • Group & team • Team dynamics • Conflict management, strategies in managing conflicts | 08 |
| V | Change Management & Leadership <ul style="list-style-type: none"> • Models of change • Forces driving change • Change Management – process, goal, importance • The process of change happening in an organization • Key aspects of leadership in change management – responsibilities of a change leader. | 08 |

SUGGESTED ACTIVITIES:

- Group/individual presentation on the basic principles of leadership and management, Discussion on readings - Individual or group presentation of assigned topics in class on leadership and management principles and theories.
- Activities on Envisioning, Goal setting
- ACTION PLAN to be prepared

REFERENCES:

| | |
|----|--|
| 1. | Theories of Educational Leadership and Management (3rd ed.), by Bush, Tony (2003). SAGE Publications, Ltd. |
| 2. | The inspiring leader: unlocking the secrets of how extraordinary leaders motivate. By Zenger, John, Joseph Folkman, and Scott Edinger (2009). New York: McGraw Hill Press. |
| 3. | Knowing yourself. On becoming a leader: the leadership classic. By Bennis, Warren (2009). New York: Basic Books. |
| 4. | Leading Change. By P. Kotter, Harvard Business, 2012. |
| 5. | The Fifth Discipline. By Peter M. Senge, Crwon Currency, 2006. |
| 6. | The Leadership Sutra: An Indian Approach to Power. By Devdutt Pattanaik, – Penguin Random House, 2017. |
| 7. | Leadership and Management. By Dr. A. Chandra Mohan. Himalaya Publishing House, 2010. |

TH:5(C)- PROFESSIONAL SKILLS

| | | | | | | |
|----------------------------|----------|----------|-------------------------|------------------------------|---------|------------------------|
| L | T | P | Total Marks: 100 | Course Code: OE301(C) | | |
| 3 | 0 | 0 | | Theory Assessment | | |
| Total Contact Hours | | | | Theory | : 45Hrs | End Term Exam |
| | | | | | | 70 |
| | | | | | | Progressive Assessment |
| | | | | | | 30 |
| Pre-Requisite : Nil | | | | | | |
| Credit 3 | | | Category of Course: OE | | | |

RATIONALE:

The term, "Professional skills" carries significant weight in the job market and career development. This open elective course explores various types of professional skills, their significance, and how they can be cultivated and harnessed for career progression. By understanding the landscape of professional skills, student can better position himself or herself for success in the competitive job market. It is crucial to continuously update and adapt the professional skills to stay ahead in a rapidly changing work environment. By investing in professional development, one can enhance employability and open doors to new opportunities.

LEARNING OUTCOMES:

After completion of the course, the students will be able to

- Demonstrate Self-competency and Confidence
- Practice Emotional Competency
- Work in a team work or in collaboration
- Demonstrate problem solving and decision-making skills
- Apply time management strategies and techniques effectively
- Apply professional ethics and integrity in professional and personal life

| UNIT NO. | CONTENT | ALLOTTED TIME (HOURS) |
|-----------------------------------|---|-----------------------|
| I Communication Skills: | <ul style="list-style-type: none"> • Active listening • Verbal and non-verbal communication • Written communication • Presentation skills • Conflict resolution | 08 |
| II Teamwork and Collaboration: | <ul style="list-style-type: none"> • Building trust within a team • Effective collaboration strategies • Role delegation and responsibility sharing • Conflict resolution within a team | 08 |
| III Problem-Solving: | <ul style="list-style-type: none"> • Identifying root causes of issues • Generating solutions and evaluating options | 08 |

| | | |
|---|--|----|
| | <ul style="list-style-type: none"> • Decision-making under pressure • Critical thinking skills • Triple constraint issues | |
| IV Time Management: | <ul style="list-style-type: none"> • Prioritization and task management • Setting realistic deadlines • Effective time planning and organization | 06 |
| V Emotional Intelligence: | <ul style="list-style-type: none"> • Self-awareness and emotional regulation • Empathy and understanding others' emotions • Managing interpersonal relationships • Motivation • Social skills • Emotional Intelligence (EQ) • Stress management | 08 |
| VI Professional Ethics and Integrity: | <ul style="list-style-type: none"> • Workplace ethics and code of conduct • Confidentiality and data privacy • Professional accountability- • Important Considerations: | 07 |

REFERENCES:

1. Dr. Vitthal Gore: Professional Skills for 21st Century: A Key to Success: Blue Rose- ACADEMIC
2. The ACE of Soft Skills: Attitude, Communication and Etiquette for Success: PEARSON
3. The essence of Leadership: S. Manikutty: Bloomsbury

SUMMER INTERNSHIP II

| | | | | |
|----------------------------|---|---|------------------------|---------------------------------------|
| L | T | P | Total Marks: 50 | Course Code: SI301 |
| 0 | 0 | 0 | | Internship Assessment |
| Total Contact Hours | | | | End Exam : 15 |
| Internship : 3-4 weeks | | | | Progressive Assessment : 35 |
| Pre-Requisite : Nil | | | | |
| Credit : 2 | | | | Category of Course: Internship |

RATIONALE:

An internship is a professional learning experience that offers meaningful, practical work related to a student's field of study or career interest. An internship gives a student the opportunity for career exploration and development, and to learn new skills. It offers the employer the opportunity to bring new ideas and energy into the workplace, develop talent and potentially build a pipeline for future full-time employees.

LEARNING OUTCOMES:

After the completion of the course, the student shall be able to

- Opportunity for "hands-on" experience
- Opportunity to sample various career options
- Preparation for job searches
- Provides a clear job/project description for the work experience.
- Orients the student to the organization, its culture and proposed work assignment(s).
- Helps the student develop and achieve learning goals.
- Offers regular feedback to the student intern.

DETAILED COURSE CONTENTS

Internship of 4-6 Weeks shall be performed during summer break after semester IV and will be assessed as part of Semester III. During the summer vacations, after the 2nd Semester, students are required to be involved in Inter/ Intra Institution Activities viz.; Training with higher Institutions; Soft skill training organized by Training and Placement Cell of the respective institution; contribution at incubation/ innovation /entrepreneurship cell of the Institution; participation in conferences/ workshops/ competitions etc.; Learning at Departmental Lab/ Tinkering Lab/ Institutional workshop; Working for consultancy/ research project within the institutes and Participation in all the activities of Institute's Innovations Council for e.g.: IPR workshop/ Leadership Talks/ Idea/ Design/ Innovation/ Business Completion/ Technical Expos etc.

After completion of Mini-project or Internship the student should prepare a comprehensive report to indicate what he has observed and learnt in the training period or while working on mini-project. The student may contact the Industrial Supervisor/ Faculty Mentor/TPO to assign special topics and problems and should prepare the final report on the assigned topics. Student's Diary and Internship Report should be submitted by the students along with attendance record and an evolution sheet duly signed and stamped by the industry to the Institute immediately after the completion of the training. It will be evaluated on the basis of the following criteria:

- Regularity in maintenance of the diary.
- Adequacy & quality of information recorded.
- Drawing, sketches and data recorded.
- Thought process and recording techniques used.
- Organization of the information.

PR:4- MAJOR PROJECT

| | | | | |
|----------------------------|---|---|------------------------|------------------------------------|
| L | T | P | Total Marks: 50 | Course Code: PR301 |
| 0 | 0 | 4 | | Project Assessment |
| Total Contact Hours | | | | End Exam : 15 |
| Project : 60Hrs | | | | Progressive Assessment : 35 |
| Pre-Requisite : Nil | | | | |
| Credit : 4 | | | | Category of Course: Project |

RATIONALE:

Students' Project Work aims at developing innovative skills in the students whereby they apply the knowledge and skills gained through the course covered in many subjects and Labs, by undertaking a project. The prime emphasis of the project work is to understand and apply the basic knowledge of the principles of MECHATRONICS and practices in real life situations, so as to participate and manage a large organization and projects, in future.

Entire Project shall spread over 5th and 6th Semester. Part of the Project covered in 5th Semester shall be named as Project Dissertation-I and the balance portion to be covered in 6th Semester shall be named as Project Dissertation-II.

LEARNING OUTCOMES:

After the completion of the course, the student shall be able to

- Expose to self-learning various topics.
- Survey the literature such as books, national/international referred journals and contact resource persons for the selected topic of research.
- Learn to write technical reports.
- Develop oral and written communication skills to present and defend their work in front of a technically qualified audience.
- Develop professional values and ethical standards.
- Handle real life challenges by making effective decisions to complete project work.
- Show skills in developing real world applications

STUDENT'S ACTIVITY

Students will do their project work as guidance from their guide (faculty member).

Guidelines:

The individual students have different aptitudes and strengths and also areas of interest. Project work, therefore, should match the strengths and interest of the students. For this purpose, students should be asked to identify the type of project work they would like to execute. The activity of problem identification should begin well in advance (right from beginning of 5th semester). Students should be allotted a problem of interest to him/her as a project work. It is also essential that the faculty of the respective departments may have a brainstorming session to identify suitable project assignments for their students. The project assignment can be an individual assignment or a group assignment. Preferably there should not be more than 5 students if the project work is given to a group. The project work identified

in collaboration with industry/organization should be preferred.

A suggestive criterion for assessing student performance by the external (preferably person from industry) and internal (teacher) examiner is given in table below:

| Sl. No. | Performance Criteria |
|----------------|--|
| 1. | Selection of project assignment |
| 2. | Planning and execution of considerations |
| 3. | Quality of performance |

The teachers are free to evolve other criteria of assessment, depending upon the type of project work.

It is proposed that the institute should organize an annual exhibition of the project work done by the students and invite leading Industrial organizations of area of subject to such an exhibition.

Project Phase-I and Phase-II

The Project work duration shall cover 2 semesters (5th and 6th sem). The Grouping of students, selection of Project, assignment of Project Guide to the Group shall be done in the beginning of 5th semester under Project Phase-I. The students may be allowed to study literature, any existing system and then define the Problem/objective of the Project. Requirements specification and Preliminary work of the system have to be completed in Phase-I. Project Milestones are to be set so that progress can be tracked. In Phase-II Detailed work, Documentation has to be complete. *Project Report have to be prepared and complete in Phase-II.* All Project reports should be organized uniformly in proper order, irrespective of group. Teacher Guides can make suitable alterations in the components of Task and schedule.

At the end of Project Phase-I in the 5th semester there shall be one presentation by each group to mark to progress and also to judge whether the Project is moving in right direction as per the objective of the Project.