

# **Course Syllabus for MSc in Facial Aesthetics**

## **Module 1 & 2: Basic Sciences, Skin Anatomy, Blood Derivatives & Research Methodologies**

- Head and Neck Anatomy
- Maxilla / Mandible: Osteology ,muscle attachments, blood supply & nerve supply / age changes
- Physiology of Aging
- Skin Anatomy - Understand skin in terms of Embryology , structure & function
- To understand affect of aging / habits upon the skin , layers of epidermis , layers of dermis , functions of dermis cells /non cellular elements
- Different types of Fitzpatrick skin types the effect of UV lights on the skin, sun tanning sun damage on the skin, skin ablative treatments, skin non ablative treatments, Lasers, IPL.RF treatments
- Mucosa , Epithelium – Significance
- Tempromandibular joints
- Scalp Anatomy – Blood supply , Nerve supply , layers
- Intraoral structure
- Anesthesia - Face blocks, local infiltration , Intra oral / extra oral / closed mouth
- Collagen induction basic
- Role of Collagen / production of Collagen
- Cellular response, cells responsible for collagen production
- Procedures for collagen production
- Meso-therapy, Microdermabrasion, Microneedling
- Collagen threads
- History /Types of threads
- Use of threads
- Surgical vs Non surgical procedures
- Systemic disease & Diagnosis
- Radiographic interpretation – MRI , CT-Scan , Radiograph

- Neoplasm and types of neoplasm
- Investigations
- Post operative facial scar & Keloid

### **Blood derivatives:**

- Concept of Blood derivatives
- Generations / types
- Growth factors in blood
- PRP/ PRF/ I-PRF/ A-PRF / L-PRP and difference in each other
- Cell behaviour in response to centrifugation
- Centrifugation concept
- Clinical use Extra-oral use

### **Applications:**

#### **Extra Oral:**

Facelift , Scar Treatment , Face Rejuvenation, Dark Circles , Lip  
Depigmentation Combination With Other Procedures, Lasers, Fillers , Implants  
Use With Stem Cells

#### **Inta-oral:**

Implants, Sinus elevations, socket elevation ,Soft tissues surgery, Hard/soft tissue  
augmentation

### **Research Methodology**

1. Epidemiology & Research
  2. Collection, Analysis, Interpretation & Presentation of Data.
  3. Dissertations & Research Paper Writing
  4. Biostatistics
- Medico-legal aspects of Cosmetic Dermatology
  - Ethics in cosmetic practice

## **MODULE 3/4 – Injectables / Applicable Solutions**

- Anatomy of facial pads & Physiological effects of ageing
- Replacement options by natural and artificial
- Dermal fillers

- Introduction, types of fillers ,
- Hyaluronic Acids(HA), different types based upon use and linkage
- Indication/ contraindication of H.A
- Injection procedures ,different manufactures , treatment of complication
- Managing patient expectations
- Non HA fillers - Permanent/ temporary synthetic, Autologous
- Dermal fillers for specific region – lips hands face neck jaw body
- Augmentation of facial fat pads with dermal fillers , aesthetic treatments
- Intraoral uses of dermal fillers, Interpapilla loss , gingival recession , Graft material
- Tissue engineering

## **BOTOX**

- Introduction
- Historical milestones related with Botox in all fields
- Types of BOTOX / Basic science of Botox
- Therapeutic uses of BOTOX / Serotypes & Structure
- Storage / Dilution
- Injection technique
- Preoperative / Postoperative assessment
- Complications
- Medical / Dental uses

## **CHEMICAL PEEL**

- Introduction
- History of Chemical peel
- Indication / Contraindication
- Chemistry of peels
- Classification of peels
- AHA , BHA , Regional & Subtypes
- Indication and use of separate peels
- Priming/ Post instructions
- Medical use / Dental use

- Complications & Treatment
- French peeling
- Combination procedures
- Ablative procedures / non ablative procedures

Physiology of aging including hormonal changes in testosterone , Growth hormones & the menopause Menopause, andropause & somatopause Hormonal replacement as anti-ageing therapy, Vitamins and anti-ageing, Role of nutrition in anti-ageing ,Role of exercise as an anti-ageing strateg, Meso-therapy Lipo solution, role & injection procedures

### **MODULE 5/6: Hair Restoration & Removal:**

- Normal Hair growth Cycles, Hair colour & variations Hair follicle anatomy ,Physiology & pathology and how this related to hair follicle pharmacological treatment pathological /physiological hair fall Systemic conditions related with Hair Growth & hair fall Syndrome associated with hair problems,
- Concept of Hair aesthetics – Hair transplant systems , Biofibers and Artificial system Drug treatment , use , dose , working Non –surgical vs surgical vs Lasers system
- Lasers – types of lasers for Hair removal ,Operating system Complications

### **MODULE 7/8: Lasers and its Applications**

- Introduction
- Types of Laser / Classification
- Application of Lasers
- Ablating / Non Ablating Lasers
- Hard tissue / Soft tissue Lasers
- Reduction of wrinkles, age spots, Melasma , post wrinkle birthmarks, spider veins, Rosacea, Unwanted hair, Removing warts & growths, Diminish scars, Removing Tattoos
- Selections of patients, preparations of patients
- Post treatment / care

- Post surgical scar correction Scar revision
- Complications
- Potential risks
- Follow up

### **Surgical vs Non surgical scar correction**

- Concept of Plastic surgery
- Facial implants
- Rinoplasty
- Skin grafting
- Selection of area Graft , types of graft
- Selection of patients
- Incision on Face , different procedures, Sutures, Types of sutures
- Concept of Biological glue
- Difference between Conventional vs Bio Glue
- Uses , Extraoral / Intraoral

### **MODULE -9/10: Stem cells and its Applications**

- Stem cell
- Aesthetic / Regenerative Medicine / Dental
- Introduction
- Concept of Stem cells
- Types of stem cells
- Pre-Examination
- Procedures for Stem cell collections
- Differentiations , amplifications , applications
- Lab processing ,Isolation analysis & concentrations of stem cells in the Lab
- Stem cell implantation
- Anti-aging & Skin Rejuvenation by stem cells
- Bio-fillers for wrinkle fillers
- Body contouring
- Cosmetic gynaecology , Scar & Stretch marks

- Hair loss
- Total body rejuvenation
- Bio –identical hormones
- Nutrition & supplements
- Lifestyle & auto-immune diseases
- Sports injury
- Dental stem cells
- Regenerative Endo / Perio

### **MODULE- 11/12: Advance Procedures in Aesthetic Medicine**

- Plasma technologies in Aesthetic Medicine
- Radio frequency devices and procedure
- R.F Mono / Bi-Tripolar ( Exilis ,reaction ,pollogen , Fraxel etc)
- Ultra Sound based devices , Cryolipolysis
- Cryolipolysis – body, face, jaw
- Acoustic wave therapy ( X-Wave)
- Cellulite reduction device
- Skin lighting treatment
- Mode of actions
- Newest technologies & innovations in Aesthetic medicine

### **Maxillofacial prosthesis**

- Material used in MFP
- Classification of materials
- Processing methods
- Ear, ocular prosthesis, Eye, Facial prosthesis