

Colour Coding

Global	GREEN
Regional	BLUE
National	ORANGE
Local (State)	PINK

**CURRICULUM FOR M.Ch
IN
PLASTIC & RECONSTRUCTIVE
SURGERY**

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Varun Bajpai

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SYLLABUS

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COURSE CONTENT:

1. **General Plastic Surgery**
2. **Microvascular surgery, Brachial plexus and Peripheral nerve surgery**
3. **Burns and postburn deformity**
4. **Craniofacial, Cleft and Pediatric Plastic Surgery**
5. **Head and Neck Surgery**
6. **Breast**
7. **Hand and Upper Extremity**
8. **Trunk and Lower Extremity**
9. **Aesthetic Surgery and medicine**
10. **Reconstructive Surgery of External Genitalia and intersex disorders**
11. **Sex reassignment**
12. **Peripheral vascular surgery**
13. **Maxillofacial surgery, trauma and reconstruction**

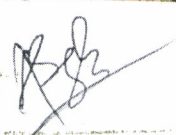
1. General Plastic Surgery:

A. General Principles:

- 1.1 **History and development of plastic surgery in India and across the world**
- 1.2 **The scope of plastic surgery**
- 1.3 **Evidence Based Medicine and research in plastic surgery**
- 1.4 **Medico legal issues in plastic surgery practice**
- 1.5 **Liability issues in plastic surgery, legal & insurance perspective**
- 1.6 **Documentation, Record keeping and consent.**
- 1.7 **Patient safety issues in plastic surgery**



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- 1.8 Psychological aspects of plastic surgery
- 1.9 Ethics in plastic surgery
- 1.10 Photography in plastic surgery.
- 1.11 Information technology relevant to plastic surgery.

B. Basic principles and techniques:

- 2.1 Wound: Definition, classification and implications
- 2.2 Wound healing-normal and abnormal.
- 2.3 Wound management - Mechanical and pharmacological dressing techniques. Negative pressure wound therapy & other techniques.
- 2.4 Scar biology and management
- 2.5 Keloid, hypertrophic scars- prevention and management
- 2.6 Unstable scar and scar contracture.
- 2.7 Anatomy and functions of skin
- 2.8 Viscoelastic Properties of Skin
- 2.9 Infective conditions of skin
- 2.10 Benign and malignant skin and soft tissue tumours
- 2.11 Radiation and Radiation Injuries
- 2.12 Principles of tissue reconstruction
- 2.13 Skin grafts
- 2.14 Blood supply to skin, cutaneous circulation and vascular basis of flaps.
- 2.15 Flaps: Classification, variations and applications
- 2.16 Flap pathophysiology and pharmacology
- 2.15 Grafts – fat, fascia, tendon, nerve, cartilage, bone, composite tissue
- 2.16 Principles of Cancer Management
- 2.17 Lymphedema: Pathophysiology and management
- 2.18 Principles of microvascular surgery and technique
- 2.19 Nosocomial infections
- 2.20 Principles of genetics and general approach to the management of congenital malformations.
- 2.21 Vascular anomalies: Pathophysiology and management



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- 2.22 Foetal surgery
- 2.23 Local anaesthesia, nerve blocks, regional anaesthesia
- 2.24 Principles of anaesthesia for infants, adults, hypothermia, hypotensive anaesthesia.
- 2.25 Pain management
- 2.26 Plastic Surgical instrumentation: General principles.

C. **Technology applications:**

- 3.1 Technological innovations
- 3.2 Laser and energy device applications
- 3.3 Tissue expansion- principles and application
- 3.4 Distraction Histogenesis
- 3.5 Endoscopy in Plastic Surgery
- 3.6 Robotics
- 3.7 Simulations
- 3.8 3.D printing technology & applications
- 3.9 Suture materials, Implants and Biomaterials in plastic surgery
- 3.10 Transplantation biology, techniques and applications
- 3.11 Regenerative medicine, cell therapy & stem cells
- 3.12 Tissue Engineering applications in plastic surgery
- 3.13 Telemedicine in plastic surgery
- 3.14 Information and Digital Technology for Plastic surgeon
- 3.15 Teaching tools and methods in plastic surgery
- 3.16 Training modules for plastic surgery trainees.

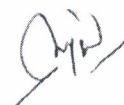
2. **Microvascular surgery, Brachial plexus and Peripheral nerve surgery**

A. **Microvascular surgery:**

- 1. Instrumentation in Microsurgery
- 2. Basic Principles of free-flap surgery
- 3. Fundamental principles
 - 3.1 Fundamental Principles of microvascular surgery



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- 3.2. Pre-operative planning for microsurgery
- 3.3. Factors affecting outcome of microvascular flap surgery
- 3.4. Anatomy of angiosomes and perforators
4. Replantation and revascularization
5. Recent advances in microsurgery
6. Terminologies in Microsurgery.

B. Peripheral Nerve surgery:

1. Types of Nerve injury
2. Diagnosis and management of peripheral nerve lesions/injuries
3. Compression neuropathies- upper and lower limb
4. Topographic anatomy of various peripheral nerves.

C. Brachial plexus Surgery:

1. Anatomy of the Brachial Plexus
2. Mechanism of Brachial Plexus Injury
3. Examination, Investigations and Diagnosis of Brachial Plexus Injury
4. Management of neonatal brachial plexus injury
5. Management of adult Brachial Plexus injury
6. Management of Chronic Brachial Plexus injury.

D. Microlymphatic surgery:

1. Lymphedema pathophysiology
2. Assessment of lymphedema
3. Medical Management of Lymphedema
4. Surgical management of Lymphedema
5. Microlymphatic surgery.

E. Composite Tissue Allotransplantation:

1. Principles and regulations of Composite Tissue Allotransplant
2. Recent developments in Hand transplant
3. Face transplant.



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F. Video microsurgery

G. Robotic microsurgery

H. Tubal recanalization and Vaso-vasostomy

I. Arteriovenous Fistula

3. Burns:

1. History of acute burns injuries & management
2. Multidisciplinary burn team
3. Prevention of burns
4. Burn management in disasters and humanitarian crisis
5. Pathophysiology of acute burns
6. Systemic Inflammatory Response Syndrome (SIRS)
7. Early burn care
8. Fluid management in acute burns
9. Inhalation burns
10. Management of the burn wound
11. Skin and skin substitutes
12. Nutrition in Burns
13. Burn wound infection and treatment
14. Sepsis in burns
15. Multiorgan Dysfunction Syndrome (MODS)
16. Anaesthesia for a burned patient
17. Biomarkers in Burn care
18. Electrical burns
19. Chemical burns
20. Facial burns
20. Hand burns
21. Feet burns



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22. Pediatric burns
24. Geriatric burns
25. Burns in pregnancy
26. Management of Pain in burns
27. Psychiatric and psychological considerations in burns
28. Burn rehabilitation
29. Post burns scars
29. Post burns contractures
30. Post burn facial deformities
31. Skin bank
32. Role of allografts in burns
33. Skin substitutes
34. Organizing a burn unit.

4. *Craniofacial Cleft and Pediatric Plastic Surgery*

1 General:

- 1.1. Embryology and anatomy of craniofacial complex.
- 1.2. Growth and development changes in face, anatomy of facial skeleton.
- 1.3. Structure and development of teeth and Dentofacial anomalies.
- 1.4 Harvesting of bone grafts (including cranial bone).

2 Craniofacial anomalies:

- 2.1. Principles of craniofacial surgery.
- 2.2. Craniofacial clefts. Tessier's clefts classification.
- 2.3. Craniosynostosis - syndromic and non-syndromic
- 2.4. Hypertelorism.
- 2.5. Craniofacial microsomia.
- 2.6. Craniofacial distraction.
- 2.7. Hemifacial atrophy.
- 2.8. Treacher-Collins Syndrome.
- 2.9. Pierre Robin sequence.



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2.10. Other craniofacial syndromes, e.g.- Binders syndrome etc.

2.11 Distraction osteogenesis

2.12 Distractors and craniofacial fixation devices.

3 Cleft Lip and Palate:

3.1. Embryology of head and neck.

3.2. Embryogenesis of cleft lip and palate.

3.3. History and evolution of techniques in Cleft surgery.

3.4. Classification of Clefts

3.5. Unilateral Cleft lip

3.6. Bilateral Cleft lip

3.7. Cleft Palate

3.8. Alveolar Clefts

3.9. Secondary deformity correction in clefts

3.10. Management of palatal fistula

3.11. Flaps in clefts- Abbe flap, Tongue flap, buccal flaps, free flaps etc.

3.12. Secondary cleft nose correction

3.13. Orthodontics in Cleft lip and Palate.

3.14. Midface skeletal evaluation and corrections an Orthognathic surgery

3.15 Distraction in Clefts.

3.16. Velopharyngeal incompetence.

3.17. Speech therapy in cleft lip and palate.

3.18. Middle ear management in Cleft palate

3.19. Antenatal diagnosis and management.

4 Maxillofacial Trauma:

4.1. Dentofacial anatomy, occlusions, various terminologies.

4.2. ATLS protocols.

4.3. Management of Airway and acute care.

4.4. Evaluation of injuries, imaging, principles of treatment.

4.5. General principles of facial soft tissue injury repair.



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- 4.6. Management of soft tissue injuries of specific regions of the face.
- 4.7. Facial nerve injuries and management.
- 4.8. Restoration of anatomical subunits of face.
- 4.9. Incisions to access the craniofacial skeleton.
- 4.10. Access osteotomies to the skull base.
- 4.11. Skeletal Fractures –Principles and management
- 4.12. Fracture Mandible and condyle fractures.
- 4.13. Midface fractures: maxilla, nasal bone, NOE complex
- 4.14. Naso-Orbito-Ethmoid injuries.
- 4.15. Nasal bone fractures.
- 4.16. Frontal bone fractures.
- 4.17. Zygomatic complex fractures.
- 4.18. Management of Panfacial injuries.
- 4.19. Management of dento-alveolar injuries.
- 4.20. Fracture reduction and different modalities of skeletal stabilization; AO principles
- 4.21. Primary and secondary bone grafting of the facial skeleton.
- 4.22. Avulsion injuries of face.
- 4.23. Gunshot injuries of face.
- 4.24. Paediatric Facial fractures.
- 4.25. Management of facial fractures in elderly and edentulous jaw.

5 Maxillofacial Disorders:

- 5.1. Temporomandibular joint: Ankylosis, Hypermobility, dislocation.
- 5.2. Temporomandibular joint pain, dysfunctions.
- 5.3. T. M Joint Reconstruction.
- 5.4. Obstructive sleep apnoea – Evaluation, planning and management.
- 5.5. Principles of osteointegration and Implantology.
- 5.6. Craniofacial and Maxillofacial Prosthetics.
- 5.7. Craniofacial Implants and retained prosthesis.
- 5.8. Radiological imaging



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5. Head and Neck Surgery:

A Head and Neck Tumors:

1. Benign and Malignant tumors of Head and Neck.
2. Tumors of oral cavity, oropharynx and Mandible.
3. Jaw tumours, lesions and cyst.
4. Principles of Reconstruction
 - 4.1 Principles of reconstruction of Cancer of upper Aerodigestive system
 - 4.2 Reconstruction of the Mandible and Maxilla
5. Tumors of skin
 - 5.1 Benign skin tumors of the Head and neck
 - 5.2 Malignant skin tumors of the Head and Neck
6. Paediatric head and neck tumours.

B Head and Neck reconstruction by region:

1. Reconstruction of Scalp and Calvarium
2. Reconstruction of the Nose
3. Reconstruction of the Eyelids and Orbit
4. Reconstruction of external ear
5. Reconstruction of the Lip and commissure
6. Cheek reconstruction
7. Tongue reconstruction
8. Reconstruction of pharynx and oesophagus

C. Principles Skull Base Surgery

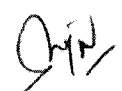
D. Vascular malformations of head and neck

E. Infections of the Head & Neck:

1. Infection of the Cervical spaces
2. Ludwig's angina



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3. Post Hansen's deformities of the face
4. Cancrum oris/ Mucor mycosis
6. **Breast:**
 1. Diagnosis of Breast Cancer
 2. Oncoplastic Surgery
 3. Management of Carcinoma Breast
 4. Nipple and Areola Reconstruction
 5. Congenital Anomalies of The Breast
 6. Tuberos Breast
 7. Poland's Syndrome
 8. Fat Grafting in The Breast
 9. Reduction Mammoplasty
 10. Mastopexy
 11. Augmentation Mammoplasty and Breast Implants
 12. Anaplastic Large Cell Lymphoma and Breast Implants (ALCL)
 13. Gynaecomastia.


7. **Hand and Upper Extremity:**

1 **Regional anatomy and principles:**

- 1.1 Functional anatomy of hand
- 1.2 Biomechanics of the Hand
- 1.3 Regional anaesthesia in upper limb surgeries
- 1.4 Examination of hand and upper limb
- 1.5 Diagnostic imaging of hand and upper extremity

2 **Traumatic disorders of hand:**

- 2.1 Fingertip and nail injuries
- 2.2 Anatomy of the skeleton of the hand and fractures of the hand and wrist
- 2.3 Flexor tendon injuries of the Upper Limb


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- 2.4 Extensor tendon of the Upper Limb
- 2.5 Mutilating injuries of the Upper extremity
- 2.6 Amputation and Prosthesis
- 2.7 Thumb reconstruction
- 2.8 Acute nerve injuries and repair
- 2.9 Compartment syndrome of the Upper limb
- 2.10 Paediatric upper extremity trauma and reconstruction.

3. Non-traumatic disorders of upper extremities:

- 3.1 Infections of hand
- 3.2 Dupuytren's disease
- 3.3 Rheumatoid arthritis of the Hand
- 3.4 Compression neuropathies of upper extremity
- 3.5 Hand ischemia and Volkmann's ischemic contracture
- 3.6 Complex Regional Pain Syndrome
- 3.7 Tumors of the upper limb.

4. Congenital disorders of hand and upper extremities:

- 4.1 Embryology, classification and principles.
- 4.2 Common congenital hand anomalies.
- 4.3 Vascular anomalies of upper extremity.

5 Miscellaneous:

- 5.1 Comprehensive management of burned hand.
- 5.2 Occupational hand disorders
- 5.3 Management of the stiff hand
- 5.4 Management of the Spastic hand
- 5.5 Management of upper extremity in tetraplegia.
- 5.6 Hand therapy.

8. Trunk and Lower Extremity:

1 Lower Extremity:


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- 1.1 Comprehensive Lower Extremity Anatomy
 - 1.2 Management of Lower Extremity Trauma
 - 1.3 Lower Extremity Sarcoma Reconstruction
 - 1.4 Reconstructive Surgery: Lower Extremity Coverage/Composite reconstruction
 - 1.5 Diagnosis and Treatment of Painful Neuroma and of nerve compression in the lower extremity

 - 1.6 Lower Extremity Composite Reconstruction
 - 1.7 Foot Reconstruction.
- 2 Trunk Reconstruction:**
- 2.1 Comprehensive Trunk Anatomy
 - 2.2 Reconstruction of chest
 - 2.3 Reconstruction of the soft Tissues of the back
 - 2.4 Abdominal Wall reconstruction.
- 3 Reconstruction of Genitalia:**
- 3.1 Reconstruction of Male Genitalia
 - 3.2 Reconstruction of acquired vaginal defects
 - 3.3 Gender identity disorders and disorders of sex development.
- 4 Pressure Sores**
- 5 Perineal Reconstruction**

9. Aesthetic Surgery:

1. Aesthetic surgery practice:

- 1.1. Setting up an aesthetic surgery practice
- 1.2. Preoperative analysis and surgical Planning in aesthetic surgery
- 1.3. Psychological assessment & specialist referrals
- 1.4. Obtaining informed consent and patient counselling
- 1.5. Clinical photography, documentation and record keeping
- 1.6. Dealing with complications and unsatisfied patients
- 1.7. Communication and team building


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- 1.8. Ethics and medico-legal aspects of aesthetic surgery
- 1.9. Anaesthesia for aesthetic surgery: general and regional nerve blocks
- 1.10. Care and maintenance of instruments sterilization and infection control practices.

2. Age related changes & rejuvenation:

A. Facial ageing

- 2.1. Anatomy of the face relevant to aesthetic surgery and injectables (soft tissues and skeletal)
- 2.2. Ageing of the face- skin, soft tissues and skeleton.

B. Facial rejuvenation

- 2.3. Non-surgical skin care and rejuvenation topicals and cosmeceuticals
- 2.4. Cutaneous resurfacing - chemical peel, surgical dermabrasion
- 2.5. Regenerative medicine: platelet rich plasma, mesenchymal stem cells and their aesthetic applications
- 2.6. Laser: physics, tissue interactions and various clinical applications
- 2.7. Other energy based devices: radio-frequency and ultrasound: their application in skin tightening and body contouring.
- 2.8. Forehead lift: endoscopic and surgical
- 2.9. Brow lift
- 2.10. Blepharoplasty: upper and lower
- 2.11. Oriental blepharoplasty
- 2.12. Secondary blepharoplasty
- 2.13. Thread lifts: science, indications, technique complications


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- 2.14. Various facelift techniques: minimal access cranial suspension (macs) subcutaneous lift, Smas-platysma plication, extended Smas, subperiosteal lift
- 2.15. Secondary deformities from facelift surgery.

3. Aesthetic skeletal surgery:

- 3.1. Facial skeleton: male and female. Age related changes in the facial skeleton
- 3.2. Facial skeletal augmentation: bone graft and implants
- 3.3. Facial masculinisation and feminisation surgeries
- 3.4. Anthropometry, cephalometry, orthognathic surgery.

4. Soft tissue fillers:

- 4.1. Chemical composition and application of soft tissue fillers
- 4.2. Temporary, semi-permanent, permanent fillers vascular and other complications of fillers.

5. Botulinum toxin:

- 5.1. Botulinum toxin: science, indications, techniques, complications.

6. Incisions and scars:

- 6.1. Resting skin tension lines and their relation to incision placement and scar revision.
- 6.2. Non-surgical management of incisions and scars
- 6.3. Surgical management of scars of the face and other regions.

7. Rhinoplasty:

- 7.1. Nasal anatomy, physiology and assessments
- 7.2. Rhinoplasty: aesthetic and functional, open and closed, reduction and augmentation
- 7.3. Structural and preservation rhinoplasty
- 7.4. Tip-plasty



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- 7.5. The deviated/ crooked nose and cleft rhinoplasty
- 7.6. The septum in rhinoplasty
- 7.7. Secondary rhinoplasty.

8. Lip:

- 8.1. Augmentation
- 8.2. Reduction

9. Fat grafting:

- 9.1. Structural fat grafting: principles, extraction, preparation & injection techniques. Micro, milli & nano fat grafting. indications and complications.
- 9.2. Autologous fat grafting: biology, volumetric & non-volumetric effects of fat grafts
- 9.3. Platelet rich plasma, platelet rich fibrin, nano- fat grafting.

10. Liposuction:

- 10.1 Principles and composition of various wetting solutions & safety issues
- 10.2 preoperative planning, postoperative care
- 10.3. Lipo-structuring- concept, applications, 7 techniques- power assisted liposuction (PAL), ultrasound assisted liposuction (UAL), laser assisted liposuction, cryo-lipolysis
- 10.4. High definition lipostructuring
- 10.5. Face liposuction and lipolysis
- 10.6. Axillary contouring and axillary breast management
- 10.7. Gynaecomastia correction
- 10.8. Recent techniques- Vaser, radio frequency, j plasma skin tightening
- 10.9. Large volume liposuction.



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11. Body contouring surgeries:

- 11.1 Obesity & massive weight loss (MWL) and post bariatric surgery weight loss
- 11.2 Management of high BMI patients
- 11.3. Body and limb contouring procedures: brachioplasty, belt lipectomy, lower body lift, upper body lift, thigh plasty, buttock lift: assessment, indications, techniques & complications.

12. Abdominoplasty:

- 12.1 anatomy and blood supply
- 12.2. Standard abdominoplasty & variants
- 12.3. High tension lateral abdominoplasty, mini abdominoplasty, extended lipo-abdominoplasty
- 12.4. Neo-umbilicoplasty
- 12.5. Correction of divaricated recti, ventral hernia, mesh repair.

13. Implants and augmentation:

- 13.1. Implant biology
- 13.2. Buttock augmentation, calf augmentation.

14. Aesthetic genital surgery: male & female:

- 14.1. Anatomy & embryology
- 14.2 Analysis and planning, anatomical and functional corrections
- 14.3 Penile, scrotal, vaginal, vulval, mons pubis surgical procedures.

15. Hair restoration:

- 15.1 Scalp anatomy and pathology biology of the hair follicle from the surgical perspective
- 15.2 Patterns of hair loss
- 15.3 Tools for evaluation of hair quality- TrichoScan, densitometry etc
- 15.4. Management protocols for alopecia. Medical restoration


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15.5. Various techniques of restoration including strip harvest (FUT),
(FUE)

15.6 Body hair transplant (non-scalp donor harvest)

15.7 Surgical correction of baldness

15.8 Eyebrow, moustache, beard hair transplantation.

16. Other aesthetic procedures:

16.1. Aesthetic jewellery piercing

16.2. Cheek dimple creation

16.3. Buccal fat pad removal

16.4. Ear lobe: repair, augmentation, reduction.

TEACHING AND LEARNING METHODS

GENERAL PRINCIPLES:

The syllabus has been designed to ensure competency-based training of the student during the 3 years. This will cover the Cognitive, Psychomotor and Affective domains.

The training will essentially be self-directed and revolve around practical skills acquired from graded patient care responsibilities and formal academic sessions. Trainees are expected to be fully conversant with the use of computers (documentation, editing and presentation software (word, power point, excel etc.)) and be able to use databases like the Medline, PubMed etc.

PATIENT CARE RESPONSIBILITIES:

The student will be posted in the OPD, Wards, Operation theatres and the Emergency medicine where he will participate in patient care responsibilities

1. History taking,
2. Clinical Examination,
3. Documentation : Clinical notes, Clinical photographs,
4. Progress notes,
5. Order and interpret relevant investigations,


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6. Treatment planning,
7. Make a pattern of the treatment plan where indicated,
8. Counsel the patient or relatives regarding the procedure to be undertaken,
9. Take informed consent,
10. Assist or perform the surgical treatment,
11. Coordinate care and rehabilitation with other ancillary departments.

FORMAL ACADEMIC SESSIONS:

Below is a suggested Academic schedule that will be followed:

Sr. No.	Description	Frequency
1	Subject seminars	Once a week
2	Journal club	Once in two weeks
3	Didactic lectures by faculty	Once a month
4	Bedside teaching	As and when feasible
5	Clinical rounds	Once a week
6	Structured interactive group discussion (Including buzz sessions, debates, problem based learning etc)	Once a week
7	Case Presentation and Treatment Planning	Once a week
8	File Audit/Statistic Meet/Mortality and Morbidity Audit	Once month
9	Cadaver dissections	As and when possible/ Once a week
10	Skills laboratory i). Microvascular laboratory ii). Craniofacial techniques/ fracture fixation iii). Simulator based	Daily/ Weekly/ Once a month (as per requirement)
11	Grand Round/Interdepartmental Meet	Once a month

The following things have to be considered in the formal teaching program

- i. PG student shall be required to participate in the teaching and training programme of Undergraduate students and interns.
- ii. Department should encourage e-learning activities.

EXTERNAL POSTINGS:

As it is not possible for all departments to expose the student to all aspects of Plastic and reconstructive surgery, it is recommended (if permissible) that the student be permitted external

postings to departments of excellence in various subspecialties for a period of 2 weeks to a month at a time, a total of three months being permitted during a period of 3 years. This is provided that the student has shown the required progress and worked to the satisfaction of the Faculty members and head of the department, availability of permissible leave of absence as per the concerned University Rules & Regulations.

The sub-speciality where posting may be done would include:

1. Burns
2. Hand surgery
3. Microvascular surgery
4. Aesthetic surgery
5. Cleft and craniofacial surgery
6. Others as deemed useful by the HOD and student
 - i. Orthopaedics
 - ii. Anaesthesia
 - iii. Oncosurgery
 - iv. Radiodiagnosis

PAPER PRESENTATION AND PUBLICATION (Compulsory):

A postgraduate student would be required to present one poster, read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.

RESEARCH METHODOLOGY/ THESIS: (Optional)

It is desirable for the trainee to take up a thesis during their posting and complete it before their training ends.

During the training programme, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently. For this purpose, provision of skills laboratories in medical colleges is mandatory.


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ASSESSMENT

GENERAL PRINCIPLES:

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning; it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and practical/clinical examination.

FORMATIVE ASSESSMENT:

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

INTERNAL ASSESSMENT:

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure 1).


QUARTERLY ASSESSMENT:

1. Patient based:
 - i. Documentation of case records
 - ii. Progress notes
 - iii. Clinical photographs
2. Laboratory or Skill based learning:
 - i. Cadaver dissection
 - ii. Microvascular laboratory
 - iii. Learning on simulation models
3. Self-directed learning and teaching:
 - i. Seminar: departmental
 - ii. Journal based / recent advances learning
 - iii. Case presentation and treatment planning.

The department could also conduct an annual assessment on the lines of the final Summative assessment.

SUMMATIVE ASSESSMENT: Assessment at the end of training.

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.


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The Post graduate examination shall be in two parts:

The examinations shall be organised based on 'Grading' or 'Marking system' to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training.

1. **Log book** of work done during the training period including rotation postings, departmental presentations, and internal assessment reports should be submitted.
2. At least **two presentations** at national level conference. At least one research paper should be published/ accepted in an indexed journal. **(It is suggested that the local or University Review committee assess the work sent for publication).**

There will be four theory papers based on broad distribution, as below:

- Paper I:** General principles and basic sciences relevant to plastic and reconstructive surgery.
- Paper II:** **Clinical part I-** Burns, Cleft and Craniofacial, Micro neurovascular and Brachial plexus, Hand and upper extremity surgery
- Paper III:** **Clinical part II-** Aesthetic surgery, Head and neck, Breast, Trunk, Genitalia, Lower limb surgery
- Paper IV:** Recent Advances in Plastic and Reconstructive Surgery

1. Clinical Examination

- i. **Long case:** Should assess the students' ability to diagnose a complex condition, order and interpret relevant investigations and plan the reconstruction of a composite defect.
- ii. **Short cases: 2 or 3:** Each case would assess one or more aspects of one of areas of reconstruction.
- iii. **Ward rounds: 4 cases:** Assess the students' ability to counsel a patient or relatives about a procedure, possible complications, expected results and post-operative management. It could also assess his ability to anticipate complications, prevent them and manage them should they occur.

2. Viva voce-

1. Surgical planning
2. Operative procedures
3. Instruments
4. Radiology: X-rays, CT scan,
5. Osteology (Skull, Mandible, Hand, Fibula)


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6. Photographs based viva.

LOG BOOK:

The student will maintain a comprehensive log of:

1. Cases operated- observed, assisted, performed independently,
2. Seminars presented/ attended,
3. Faculty lectures attended,
4. Journal presentations made and attended,
5. Conferences/webinars attended, and presentations made.


WORK RECORD: PHOTO ALBUM:

The student will maintain a photographic documentation of the important cases operated or assisted including relevant post-operative follow up.

Recommended reading:

Books (latest edition)

1. Neligan, Peter C. Text book of Plastic surgery. Elsevier.
2. Karoon Agrawal. Text book of Plastic, Reconstructive and Aesthetic surgery (6 volumes): Thieme
3. Kevin C. Chung, Grabb & Smith's: Plastic Surgery. Lippincott, Williams and Wilkins, New York.
4. Mathes, Stephen J. Plastic Surgery (Vol. 1-8). London. W.B. Saunders.
5. Mimis Cohen. Mastery of Plastic & Reconstructive Surgery (Vol.1-3). Little, Brown & Co.
6. Alan D. McGregor, Ian A. McGregor. Fundamental Techniques of Plastic Surgery. Elsevier.
7. Berish Strauch, Luis Vasconez, Charles K. Herman, Bernard T. Lee. Grabb's Encyclopaedia of flaps (2 Vol) .
8. Fu-Chan Wei, Samir Mardini. Flaps and Reconstructive Surgery. Elsevier.
9. Scott W. Wolfe, William C. Pederson, Scott H. Kozin, Mark S. Cohen. Operative Hand Surgery (2 Vol.).


Green's
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10. David N. Herndon, Total Burn Care. Elsevier.
11. Sujatha Sarabhai. Principles & Practice of Burn care. JP Brothers.
12. Rajiv Sood, Bruce M. Achauer. Burn surgery- Reconstruction and Rehabilitation. Saunders Elsevier.
13. Raymond Fonseca. Oral and Maxillofacial Surgery. Elsevier.
14. Robert Acland, S. Raja Sabapathy. Acland's Practice manual for Microvascular Surgery. The Indian Society for Surgery of The Hand.
15. Prabha Yadav, Vinay Shankhdhar, Dushyant Jaiswal. Mastering Cancer Reconstructive Surgery with Free Flaps. JP Brothers.

Journals

03-05 international Journals and 02 national (all indexed) journal

A

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SB

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Varun

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Chhila

List of examiners for M.Ch Examination

S. No	Name of the faculty	Designation	Institute	E mail	Contact number
1.	Dr Maneesh Singhal	Professor and Head	Department of Plastic Surgery, AIIMS New Delhi	drmaneesh@gmail.com	9810373345
2.	Dr Atul Parashar	Professor and Head	Department of Plastic Surgery, PGIMER Chandigarh	atulparashar@hotmail.com	9876201422
3.	Dr Shalabh Kumar	Professor and Head	Department of Plastic Surgery, VMMC Safdurjung New Delhi	Shalabkumar01@gmail.com	9818710366
4.	Dr. Sheeja Rajan	Professor and Head	Department of Plastic Surgery, Govt. Medical College, Thrissur	sheejarajantm@gmail.com	9747001136
5.	Dr Vishal Mago	Professor and Head	Department of Plastic Surgery, AIIMS Rishikesh	vishalm@yahoo.com	9812342588
6.	Dr. Sunil Srivastava	Professor and Head	Department of Plastic Surgery, SMS, Jaipur	drsunilsrivastav@gmail.com	9414159191
7.	Dr. Vedula Saha	Professor and Head	Department of Plastic Surgery, NRS Medical College, Kolkata	Sahavp2014@gmail.com	9830144412
8.	Dr. Ravi Chittoria	Professor	Department of Plastic Surgery, JIPMER, Puducherry	drchittoria@yahoo.com	9442285670
9.	Dr. DP Mohapatra	Professor	Department of Plastic Surgery, JIPMER, Puducherry	devi_mohapatra1@yahoo.com	9439491269
10.	Dr. Bibhuti Bhushan Nayak	Professor and Head	Department of Plastic Surgery, SCB Medical College and Hospital, Cuttack	bibhutinayak@yahoo.com	9437064487
11.	Dr. Vinay K Shankhdhar	Prof and Head	Department of Plastic Surgery, Tata Memorial Hospital, Mumbai	vinayshankhdhar@gmail.com	9819668264
12.	Dr. Adil Hafeez Wani	Professor and Head	Department of Plastic Surgery, Sher-I-Kashmir Institute of Medical Sciences, Srinagar	adil_w@rediffmail.com	9419013886
13.	Dr. Vinita Puri	Professor and Head	Department of Plastic Surgery, Seth GS Medical College and KEM Hospital, Mumbai	profpuri@gmail.com	9323256911


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