Course Title	**Plastic Surgery**				
Course Code	MD475				
Course Type	Clinical Elective				
Level	1st Cycle (MD)				
Year / Semester	4th Year - 8th Semester 5th Year 9th Semester / 10th Semester				
Teacher's Name	TBA				
ECTS	3	Lectures / week	1 / 16 weeks	Laboratories / week	0 / 16 weeks
Course Purpose and Objectives	It is a course comprised of amphitheater lectures, laboratory skill-stations, simulation based training and clinical case based learning modules. This course aims to provide a motivating learning environment in which the students may acquire the surgical knowledge and competencies pertaining to plastic surgery that are required to be practiced in the community and at all levels of health care system. **<u>Medical knowledge</u>** • Demonstrate an understanding of normal skin anatomy. • Describe the process of normal wound healing, including levels of wound contamination and management principles, factors inhibiting the normal healing process and various wound dressings. • Acquire an understanding of various suture materials and various suturing techniques. • Describe the physiology of various techniques of skin transplantation and the circulation of skin, entailing the use of tissue transplantation (including wounds. • Acquire an understanding of the various types and indications for flaps, including an understanding of the anatomy of the most commonly used flapsin plastic surgery. • Demonstrate an understanding of the pathophysiology of thermal, chemical and electrical burns and describe the initial management for each type. Acquire an understanding of resuscitation of a burn patient. • Demonstrate an understanding of the classification system for skin neoplasms. • Acquire a knowledge and understanding of the various surgical techniques applied in aesthetic surgery of the face and the body.				

<table>
<tr><td>Learning Outcomes</td><td colspan="3">

Acquire a knowledge of the surgical techniques applied in reconstructive surgery of the face and the body.

<u>Technical skills and abilities</u>

Acquire an understanding of various suture materials and perform various suturing techniques.
Acquire an understanding of the various local skin flaps, skin graft harvest and application techniques.
Demonstrate ability to assess the degree and extent of facial trauma.
Demonstrate ability to assess the degree of burn injury, the extent of burn injury and to perform a comprehensive examination, evaluation and primary care treatment of the burn patient.
Demonstrate knowledge of the systematic examination of the hand to assess motor and sensory function.

Upon successful completion of training and passing the examination the student is expected to;

Acquire comprehensive knowledge of the basics of Plastic Surgery including all allied specialties.
Possess a complete knowledge of the basic principles of Plastic Surgery and all the commonly used plastic surgery procedures.
Possess knowledge of the recent advances and innovations in the subject of Plastic Surgery and all its allied specialties and working knowledge of the sophisticated and routine equipments, consumables used in plastic surgery.
Develop basic surgical skills.
Understand the indications, expected results and possible complications of various procedures in Plastic Surgery.
Diagnose and manage the majority of conditions in the specialty of Plastic Surgery on the basis of clinical assessment, and appropriately selected and conducted investigations
Be able to identify common surgical emergencies (burn injuries, complex facial trauma, mangled limbs) and to apply sound clinical judgement and rational cost effective investigations for the diagnosis and management of these cases in the Emergency Department.
Possess knowledge of principles of research work in the field of Plastic Surgery in both the clinical and experimental field.

</td></tr>
<tr><td>Prerequisites</td><td>None</td><td>Co-requisites</td><td>None</td></tr>
<tr><td>Course Content</td><td colspan="3">

Introduction to Plastic Surgery. History of Plastic Surgery. Exploration of the fields of Plastic Surgery.
Structure and functions of the skin. Trauma – Wound Healing – Scarring (keloids, hypertrophic scars, unstable scars).Chronic

</td></tr>
</table>

Ulcers. Care of wounds. Dressing techniques and splints.

- General management of complex wounds. Types of grafts. Split and full thickness skin grafts. Local/ regional flaps. Free flaps (fasciocutaneous, muscle, myocutaneous, osteomyocutaneous and perforator flaps).
  Basics of Microsurgery.
- Burns (Facial burns, Inhalation injury, Electrical injuries, Chemical burns, Radiation injury, Compartment syndrome). Burn pathophysiology. Preoperative diagnosis and treatment. Resuscitation – Parkland Formula. Operative and postoperative treatment.
- Congenital anomalies of the head (cleft lip and palate, craniofacial anomalies), congenital anomalies of the trunk, congenital anomalies of the upper limb.
- Facial trauma. Scalp reconstruction, eyelid reconstruction, nasal reconstruction, cheek reconstruction, ear reconstruction, lip reconstruction.
- Skin Cancer (Basal cell carcinoma, Squamous cell carcinoma, Malignant Melanoma). Soft tissue neoplasms. Vascular anomalies (Hemangiomas, Vascular anomalies). Congenital nevi.

- Breast anatomy, breast augmentation, breast reduction, breast mastopexy Breast reconstruction after mastectomy – Lymphedema treatment.
- Aesthetic surgery of the face (Chemical peeling and dermabrasion, LASER Therapies, Blepharoplasty, Face lift, Neck lift, Aesthetic Rhinoplasty).
- Aesthetic surgery of the body (Liposuction, Fat grafting, Hair transplantation Brachioplasty, Abdominoplasty, Thigh lift, Bariatric Surgery).
- Hand Trauma. Hand infections. Dupuytren's disease. Hand surgery.
- Biomaterials – Tissue engineering. Advances in Plastic Surgery – Face/Hand

Transplantation.

LABS

- Suturing Techniques – Suture materials - Surgical instruments
- Z plasty – Local skin Flaps
- Skin grafts – full/split/meshed grafts
- Local anaesthesia, Nerve blocks (Hand and Face)
- Trauma and Burn dressing - Familiarity with construction of simple Splints for hand and burn Injuries
- Burn - Inhalation injury (SIMULATION)

	• Ward rounds, outpatient clinics (PLASTIC SURGERY CLINIC) • Complex Facial trauma (SIMULATION) • Hand - Clinical examination • Severely mangled extremity (Upper or lower) (SIMULATION) • Hand: Extensor/Flexor tendon/Nerve injury – suturing techniques • Application of Injectables (Botox / Hyaluronic acid) and LASERs
Teaching Methodology	Face-to-face, Lectures, Videos, Practical sessions, Simulation based training
Bibliography	Plastic Surgery Essentials for Students; American Society of Plastic Surgeons by the American Society of Plastic Surgeons 444 East Algonquin Road Arlington Heights, IL 60005 Textbook of Plastic and Reconstructive Surgery. Deepak M., Peter E. Butler, Shadi by UCL Press University College London Gower Street London WC1E 6BT ISBN: 978-1-910634-37-0 (Hbk.) ISBN: 978-1-910634-38-7 (Pbk.) ISBN: 978-1-910634-39-4 (PDF) ISBN: 978-1-910634-40-0 (epub) ISBN: 978-1-910634-41-7 (mobi)
Assessment	Examinations: 70% Assignment/Lab 20% Class Participation: 10%
Language	English