

**Pravara Institute of Medical Sciences  
(Deemed University)**

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**Syllabus  
M.S. (General Surgery)**

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**PRAVARA INSTITUTE OF MEDICAL SCIENCES**

**DEPARTMENT OF SURGERY**

**POST - GRADUATE (M.S.-GEN.SURGERY) COURSE.**

**CURRICULLUM**

**CODE:-**

**TITLE :- M.S.GENERAL SURGERY**

**TEACHING HOURS:- CONTINUOUS 3 YRS (6TERMS) RESIDENCY COURSE.**

**GOALS:-**

**TO train a MBBS doctor who will:**

- **Practice surgery efficiently and effectively, backed by scientific knowledge and skill base.**
- **Exercise empathy and a caring attitude and maintain high ethical standards.**
- **Continue to evince keen interest in continuing surgical education and research irrespective of whether he is in a teaching institution or is a practicing surgeon.**
- **Be a motivated 'teacher' – defined as a surgeon keen to share his knowledge and skills with a colleague or a junior or any learner.**

## **OBJECTIVES :-**

The following objectives are laid out to achieve the goals of the course. These objectives are to be achieved by the time the candidate completes the course. The Objectives may be considered under the subheadings

**1. Knowledge (Cognitive domain)**

**2. Skills (Psycho motor domain)**

**Human values, Ethical practice and Communication abilities**

### **Knowledge:-**

**At the end of the training, the candidate must be able to:**

- Describe aetiology, pathophysiology, principles of *diagnosis* and management of common surgical problems including emergencies, in adults and children.
- Identify social, economic, environmental and emotional determinants to practice ethically sound, competent and community oriented surgeon .
- Recognize conditions that may be outside the area of his specialty/competence and to refer them to the proper specialist.
- Update himself by self study and by attending courses, conferences and seminars relevant to surgery and undertake audit, use information technology tools and carry out research.
- Teach and guide his team, colleagues and other students.
- should also have knowledge of some common problems in allied specialties and should be familiar with complications, current controversies and recent advances in these topics.

## **Skills**

- **Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the surgical condition.**
- **Perform minor operative procedures and common general surgical operations independently and the major procedures with help from a senior surgeon.**
- **provide basic and advanced life saving support services (BLS & ALS) in emergency situations and manage acute abdominal emergencies and poly trauma.**
- **Undertake thorough wound management, including burn wounds.**
- **Undertake complete patient monitoring including the preoperative and post operative care of the patient.**

## **Human values, Ethical practice and Communication abilities**

- **Adopt ethical principles in all aspects of his surgical practice. Surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient.**
- **Develop communication skills, in particular the skill to explain various options available in management and to obtain a true informed consent from the patient.**
- **Provide leadership and get the best out of his team in a congenial working atmosphere**
- **Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.**

## P. G. SYLLABUS

### Course Contents

#### Essential Knowledge

The topics are considered under:

- Basic sciences,
- General Surgery topics and
- Specialty topics.

There will be an overlap between the General surgery and specialty categories.

**Basic sciences** include anatomy, physiology, biochemistry, microbiology and pathology and Radiology, as found in current text books. These standard topics are recommended to be studied as much as they are applicable to the practice of surgery.

#### General Surgery Topics

##### History of surgery

**Clinical History and examination** - detailed systematic history taking, clinical examination of various systems, coming to a provisional working diagnosis.

**Rationale of diagnostic tests** - Ordering diagnostic tests with prioritizing the needs, based on the clinical, hospital and the patient's socioeconomic condition

**Informed consent / Medico legal issues** - Understanding the implications of acts of omission and commission in practice. Issues regarding Consumer Protection Act. - Implications in a medico-legal case like accidents, assaults etc.

##### Concept of Essential Drugs and Rational use of drugs

##### Pharmacoeconomics

**Surgical audit** - Understanding the audit of process and outcome. Methods adopted for the same.

##### Basic statistics

**Evidence based medicine** - Understanding journal based literature study; the value of text book, reference book articles; value of review articles; original articles and their critical assessment. Understanding the value of retrospective, prospective, randomized controlled and blinded studies. - Understanding the principles and meanings various biostatistical tests applied in these studies.

**Use of computers in surgery:** Retrieval of important information, Record keeping, Powerpoint presentations for teaching, Statistical methods

##### Preoperative evaluation of patients with Co-morbid conditions

**Principles of operative surgery** like asepsis, antisepsis, sterilization. Basic surgical techniques; properties of suture materials; appropriate use of sutures, drains, prosthetic grafts. Postoperative care - concept of recovery room care; airway management; assessment of wakefulness; management of cardiovascular instability in this period. Post operative pain management as well as care of terminally ill patients especially cancer patient. Basic surgical instrumentation - Principles of surgical instrumentation; their

maintenance and troubleshooting. Familiarize with minimal access surgery instruments, Diathermy & lasers.

**Wound management:** wound healing; factors influencing healing;

**Assessment of trauma;** Assessment of head, chest and abdominal trauma and triage - Assessment of a trauma victim; resuscitation; care at the site; triage; care in the accident department; criteria for immediate surgery; immediate workup and logical referral criteria.

Multiple injured patient, closed abdominal and chest injuries, penetrating injuries; fractures pelvis; urological injuries; vascular injuries; trauma scores.

**Surgical infections** - asepsis and antisepsis; microbiological principles; rational use of antibiotics; special infections like synergistic gangrene and diabetic foot infections.

Hepatitis and AIDS

**Surgical nutrition** - nutritional assessment; metabolic response to stress; need for nutritional support; enteral nutrition; routes of access to GI tract; parenteral nutrition; access to central veins for nutritional support.

**Acute abdomen** - Appendicitis / Peritonitis / Perforated viscus / Intestinal obstruction

**Hernias** - simple and complicated - various types of hernias; their repair; prosthetic materials

**Critical care** - Cardiorespiratory failure - management of shock; including monitoring; sepsis scores; pharmacological support.

**Fluid and electrolyte balance / Acid - Base metabolism** - The body fluid Compartments; metabolism of water and electrolytes; factors maintaining homeostasis; causes for and treatment of acidosis and alkalosis.

**Pain control** - acute and chronic pain; cancer and non-cancer pain; patient controlled analgesia.

**Principles of oncology** - cell kinetics; causation of tumours; principles of oncologic surgery, radiotherapy and chemotherapy; paraneoplastic syndromes; cancer pain management; palliative care

**Principles of burn management** - types of thermal injury; assessment of extent; immediate management; late management; skin cover; rehabilitation

**Airway obstruction / management** - anatomy of the airway; principles of keeping the airway patent; mouth to mouth resuscitation; oropharyngeal airway; endotracheal intubation; crico-thyroidotomy; tracheostomy.

**Breast disease** - benign and malignant disease; diagnosis; investigation; screening for cancer; genetics of breast cancer

**Endocrines eg: Thyroid disease** - solitary nodule; investigations; multinodular goiter; Hashimoto's disease; cancer

**G I T** - Lower & Upper, Rectum & Anal canal.

**G U T** - Lower & Upper & Reproductive system

**R.E. System.**

**Hepato-biliary, Pancreas, Spleen.**

**Peritonum & Retroperitum.**

**Skin & appendages & Sub.cutaneous tissues.**

**Arterial, Venous, Lymphatic systems**

## **Specialty Topics Include**

### **GI endoscopy and Laparoscopy:**

Principles of GI endoscopy

Diagnostic and therapeutic GI endoscopy including upper GI, lower GI and pancreatobiliary systems.

Physiology of pneumoperitoneum. Diagnostic laparoscopy & Laparoscopic therapeutic procedures

### **Neurosurgery :**

Head and neck trauma; acute management and rehabilitation

Concept of brain death / medico-legal implications

Peripheral nerve injuries

Neoplasms of the brain and meninges

Acute and chronic infections of the brain and meninges

Hydrocephalus

Spinal injuries

Monitoring intracranial tension

### **Urology:**

Urological injuries

Urothelial tumours / Chemotherapy

Prostatic hypertrophy

Hypospadias

Pyelonephritis / perinephric abscess

GU tuberculosis

Scrotal disease

Endourology

Peritoneal dialysis / CAPD / haemodialysis

Transplantation / harvesting kidney

Urinary diversion

Infertility / Vasectomy

Pyeloplasty / hydronephrosis

### **Oncology:**

Breast, thyroid and GI malignancies

Chemotherapy / Adjuvant therapy

Head and neck tumours

Imaging CT/ MRI CT guided FNAB/C

Post excision reconstruction

Radiotherapy

### **Plastic Surgery**

Burns management

Cleft lip and palate

Congenital defects of hand

Details of skin flap

Facial injuries

Hand injuries / tendon injury

Hypospadias

Nerve repair

Pressure sores .

Principles of microsurgery  
Principles of tissue transfer  
Vascular repair  
**Cardio-thoracic surgery**  
Flail chest / thoracic trauma Bronchogenic carcinoma Lobectomies  
Pneumonectomy  
Endocarditis prophylaxis  
Pulmonary function tests  
Control of major haemorrhage  
Operations on the diaphragm  
Coronary artery disease  
Valvular heart disease  
Lobectomies and pneumonectomies  
Oesophageal disease  
Operations on thoracic aorta  
Mediastinal tumours  
Basics of congenital heart disease  
Vascular Surgery  
Vascular imaging  
A V malformations  
Exposure of major arteries and veins / vascular anastomosis  
Varicose veins  
Chronic venous insufficiency.  
Vascular emergencies - trauma, embolism  
Peripheral vascular disease - Atherosclerosis, arteritis  
Details of vascular prosthesis  
**Paediatric Surgery**  
Fluid and electrolyte management  
Preparation for surgery / post op care  
Hernias  
Spinal fusion defects Ventral defects

## **Operative Skills:**

### **Emergency Room Procedures**

Application of Splints for Fractures  
Arterial and Venous Lines  
Assessment and initial management of Poly trauma  
Cardiopulmonary Resuscitation  
Management of Airway Obstruction  
Management of Shock and Cardiac Respiratory failure

### **Pre-operative Workup**

Ability for adequate pre-operative preparation in special situations like Diabetes, renal failure, cardiac and Respiratory failure etc. and risk Stratification  
Communication skills with special reference to obtaining Informed Consent  
Proper pre-operative assessment and preparation of patients including DVT prophylaxis, Blood transfusion and Antibiotics



### **Post-operative Care**

Airway management  
Basic Physiotherapy  
Management of epidural analgesia  
Management of Fistulae  
Management of postoperative hypo and hypertension  
Postoperative pain control  
Skills for Nutritional rehabilitation of patients  
Skills for proper Fluid & Antibiotic management  
Stoma care

### **Minor O. T. procedures**

Circumcision under Local Anesthesia  
Drainage of Abscesses  
FNAC  
Major dressings  
Minor Anorectal Procedures ( Haemorrhoids -Banding, Cryotherapy, suturing etc.  
Anal dilatation and Fissures), Fistulectomy  
Minor Biopsies - Lymph node, ulcer, swellings etc.,  
Reduction and plaster application of simple fractures and dislocations  
Removal of simple subcutaneous swellings  
Sigmoidoscopy and Upper OJ. endoscopy  
Suturing Techniques  
Vasectomy  
Wound debridement

### **Major Operating room techniques**

Instrument arrangement and trolley layout  
Skills in Sterilization techniques, O.T.Layout and Asepsis  
Skin preparation - painting and draping  
Technique of scrubbing and gowning

### **General Surgical Operative Procedures**

Appendicectomy  
Cholecystectomy  
Closure of Colostomy  
Closure of peptic ulcer / under-running bleeding ulcer / vagotomy drainage  
Colostomy  
Cysts and sinuses of the neck  
Diagnostic laparoscopy  
Drainage of breast abscess / Excision of breast lump  
Groin Hernia repair  
Gynaecomastia  
Haemorrhoidectomy / Fissurectomy / simple fistulectomy  
Hemicolectomy  
Herniotomy / Orchidopexy in children  
Laparotomy for abdominal trauma / splenectomy  
Laparotomy for intestinal obstruction / bowel resections / bowel anastomosis Management of complex wounds

Mastectomy  
Opening and closing the abdomen  
Opening and closing the chest  
Parotidectomy  
Release of bands and simple adhesive obstruction  
Thyroid lobectomy  
UGI endoscopy / Flexible sigmoidoscopy  
Ventilation  
Wide excision of breast tumours / mastectomy / microdocheotomy  
Gastrostomy / Feeding jejunostomy

### **Speciality Procedures**

There will be repetition of the procedures listed under this category and those listed under General surgical procedures.

#### **Laparoscopy And GI Endoscopy**

Diagnostic and therapeutic Upper and Lower GI endoscopy  
Diagnostic laparoscopy  
Diagnostic Upper GI endoscopy  
Laparoscopic Cholecystectomy

#### **Neurosurgery**

Craniotomy  
Management of paraplegia  
Peripheral nerve repair  
Treatment of nerve injury specific operations  
Suturing complex scalp wounds  
Trephining

#### **Urology**

Carcinoma penis  
Diagnostic cystoscopy  
Inguinal Block Dissection  
Meatotomy  
Nephrectomy - partial & total  
Nephrolithotomy  
Orchidectomy  
Orchidopexy  
Retroperitoneal lymph node dissection  
Supra pubic cystostomy  
Total amputation of penis  
TURP / Open prostatectomy  
Ureterolithotomy  
Urethral J Urogenital injuries  
Urethral dilatation  
Varicocele  
Vasectomy

## **Oncology**

All radical operations - Breast, Thyroid, GI and Facio-maxillary malignancies

Breast lumpectomy

Functional neck node dissection

Gastrectomy / Bowel resection

Metastatic workup

## **Plastic Surgery**

Burn resuscitation

Lip surgery

Local blocks in anaesthesia

Minor hand injuries

Nerve repair

Post excision reconstruction

Skin flap surgery

Stitch craft

Tendon repair PA

Wound debridement

## **Paediatric Surgery**

Anorectal anomalies

Circumcision / meatoplasty

Herniotomy

Intercostal aspiration

Laparotomy for peritonitis

Lymph node biopsy

Non operative treatment of volvulus

Orchidopexy

Ostomies

Paediatric emergencies

pyloromyotomy

## **Cardiothoracic Surgery ( Not essential)**

Canulation of artery and vein

Chest injuries PA

Empyema drainage / decortication

Endotracheal intubation

Intercostal drainage

Lobectomies and pneumonectomies

Opening and closing the chest

Operations on the root of the neck

Pericardiectomy

Removal of FBs

Remove pulse generator (pacing)

Rib resection PA

Tracheostomy

Vein and arterial harvesting

Ventilator management

Vascular Surgery

## Teaching and Learning Activities

A candidate pursuing the course should work in the institution as a full time student. He should be included in Residency program.

Each year should be taken as a unit for the purpose of calculating attendance.

Every student shall attend teaching and learning activities during each year as prescribed by the department and not remain absent himself / herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below. Depending on the facilities available, any or all of these methods may be employed.

**1. Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.

A) Didactic Lectures:

Few topics are suggested as examples:

- 1) Bio-statistics
- 2) Use of library
- 3) Research Methods
- 4) Medical code of Conduct and Medical Ethics
- 5) National Health and Disease Control Programmes
- 6) Communication Skills etc.

These topics may preferably taken up in the first few weeks of the 1st year.

B) Integrated Lectures: These are recommended to be taken by multidisciplinary teams for selected .

**2. Journal Club:** Recommended to be held once a fortnight All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further every candidate must make a presentation from the allotted journal(s) of selected articles at least two times a year and a total of 6 presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment.

A time table with names of the student and the moderator should be announced at the beginning of every year.

**3. Subject Seminar:** Recommended to be held once a month All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details. Further every candidate must present on selected topics at least four times a year and a total of 12 seminar presentations in three years.

The presentations would be evaluated using check lists and would carry weightage for internal assessment. A timetable for the subject with names of the student and the moderator should be scheduled at the beginning of every year.

**4. Student Symposium:** Recommended as an optional multi disciplinary programme.

**5. Ward Rounds:** Ward rounds may be service or teaching rounds.

A diary should be maintained for day to day activities by the students.

Entries should be made in the Log book.

**6. Clinico-Pathological Conference (CPC):** Recommended once a month for all post graduate students.

**7. Death Audit:** Assigned exercises for scientific & death audit meeting discussions.

**8. Inter Departmental Meetings:** Strongly recommended particularly with departments of Pathology and Radio-Diagnosis at least once a week.

These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.

**9. Teaching Skills:** Post graduate students must teach under graduate students (Eg. medical, nursing) by taking demonstrations, bed side clinics, tutorials, lectures etc.

Assessment is made using a checklist by surgery faculty as well students. Record of their participation be kept in Log book. Training of post graduate students in Educational Science and

Technology is recommended.

**10. Continuing Medical Education Programmes (CME) :** At least 2 state level CME programmes

should be attended by each student in 3years.

**11. Conferences:** Attending conferences is optional. However it should be encouraged.

**12. Dissertation** Every candidate pursuing MS degree course is required to carry out work on a selected research project under the guidance of a recognized post graduate teacher.

The results of such a work shall be submitted in the form of a dissertation. He will attain the Research Methodology workshop compulsorily at the beginning of first year.

A. The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.

B. Every candidate shall submit to University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

C. Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

D. The dissertation should be written under the following headings:

- Introduction
- Aims or Objectives of study
- Review of Literature
- Material and Methods
- Results
- Discussion
- Conclusion
- Summary
- References
- Tables
- Annexure

E. The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other Checklists. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" X 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

F. Four copies of dissertation thus prepared shall be submitted to the University, six months before final examination on or before the dates notified by the University.

G. The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition to appear in the University examination.

### **Rotation and posting in other departments**

The listed knowledge and skills are to be learnt over a period of 3 years. The process is a continuous one. However the recommended period and timing of training in basic subjects, allied departments and specialty departments are given below.

In the first year, during the morning session, student should work in the parent department. It is recommended that 2 years and 4 months be spent in General Surgery and 8 months in allied and specialty departments. Depending on the time and opportunities available, some of the procedures listed for second year activity can be shifted either to the first or the third year. Duration of postings in core and other specialties will be eight months.

#### **Basic Sciences**

Basic science should be an essential part of training. It should be done as concurrent studies during the 1st year of training. At least two hours daily may be in the first six months of the course. In the afternoons basic science teaching relevant to surgery can be done in the respective departments.

Topics for study to include Anatomy, Physiology, Pathology, Microbiology, Pharmacology, Anaesthesia and Radiology

Pathology - Concurrent study - Recommend daily Grossing sessions, weekly Surgical pathology sessions and monthly Clinico- Pathological Conferences.

Radiology - Concurrent study – adequate exposure to modern imaging modalities like ultrasound sonography, CT scan, MRI and angiography.

#### **Allied Specialty Subjects**

Students should to be posted to core allied speciality subjects Viz. Anaesthesia and ICU for one month and Casualty & trauma (accident and emergency) for 2 months during the second year of training.

#### **Other Surgical Speciality Subjects**

Postings to other speciality departments will be during the second year. The departments and duration of postings are as under:

#### **Department Duration**

- Paediatric surgery 4wks
- Plastic surgery 4wks
- Urology 4 wks
- Oncology 4 wks
- Cardiothoracic / Neurosurgery 4 wks

**POST – GRADUATE TEACHING PROGRAMME(CLINICAL)**

PERIOD:

MONTH / YEAR:

SR. NO.	DAY	TIME	NAME OF STUDENT	TEACHING ACTIVITY
1.	Tuesday			
2.	Wednesday			
3.	Thursday			
4.	Friday			
5.	Saturday			
6.	Sunday			
7.	Monday			
8.	Tuesday			
9.	Wednesday			
10.	Thursday			
11.	Friday			
12.	Saturday			
13.	Sunday			
14.	Monday			
15.	Tuesday			
16.	Wednesday			
17.	Thursday			
18.	Friday			
19.	Saturday			
20.	Sunday			
21.	Monday			
22.	Tuesday			
23.	Wednesday			
24.	Thursday			
25.	Friday			
26.	Saturday			
27.	Sunday			
28.	Monday			
29.	Tuesday			
30.	Wednesday			
31.	Thursday			

## **POST GRADUATE TEACHING ACTIVITY LIST.**

### **A. SEMINARS**

1. TRIPLE ASSESSMENT OF CARCINOMA OF THE BREAST.
2. ACUTE PANCREATITIS
3. NEUROCYSTICERCOSIS
4. ELECTROLYTE IMBALANCE
5. MANAGEMENT OF SHOCK
6. INVESTIGATIONS IN THE BENIGN ENLARGEMENT OF THE PROSTATE
7. COLOSTOMY
8. INTESTINAL OBSTRUCTION
9. ACUTE CHOLECYSTITIS
10. C. B. D. STONES
11. CHRONIC PANCREATITIS
12. DISEASES OF THE COLON AND RECTUM
13. COMMON ABDOMINAL EMERGENCIES
14. SURGICAL MORTALITY RATE
15. POSTOPERATIVE HEPATIC DYSFUNCTION
16. GALL STONES
17. INTESTINAL FISTULAE
18. THYROID SURGERIES
19. BLUNT TRAUMA OF THE ABDOMEN
20. SPLENECTOMY
21. PERITONITIS
22. PAPILLARY CARCINOMA OF THE THYROID
23. DIVERTICULAR DISEASES
24. ILEOCEACAL TUBERCULOSIS
25. MANAGEMENT OF BURNS
26. GANGRENE
27. CRITICALLY ISCHEMIC LIMB.

### **B. SLIDE SEMINARS**

- EXTRA INTESTINAL MANIFESTATIONS OF COLITIS
- OPERATIONS FOR DUODENAL ULCER
- LYMPHOEDEMA
- HORMONE REPLACEMENT THERAPY IN CARCINOMA OF THE BREAST
- DIAGNOSIS OF THE CARCINOMA OF LUNG
- EMPYEMA AND ITS MANAGEMENT
- CONGENITAL ANOMALIES OF THE ESOPHAGUS
- INTESTINAL VOLVULUS



- INFLAMMATORY BOWEL DISEASES AND SURGICAL MANAGEMENT
- BENIGN BREAST DISEASES
- TOTAL PARENTERAL NUTRITION
- POST OPERATIVE BREAST RECONSTRUCTION
- DIAGNOSIS AND MANAGEMENT OF AORTIC ANEURYSM
- HEAD AND NECK TUMORS
- LAPAROSCOPIC CHOLECYSTECTOMY
- LIVER TRAUMA
- CARCINOMA OF THE BREAST
- VENOUS ULCER AND ITS MANAGEMENT
- DISEASES OF THE COLON AND THE RECTUM
- AMPUTATION IN THE UPPER LIMB
- ESOPHAGEAL MOTILITY DISORDERS
- STOMAS
- CHOLECYSTITIS
- HYPER FUNCTION OF THE THYROID GLAND
- INTESTINAL TUBERCULOSIS
- THYROID MALIGNANCIES
- PAROTID TUMORS
- HEPATIC ABSCESSSES

### **C. GROUP DISCUSSION**

1. CERVICAL LYMPHADENITIS
2. SACROCOCCYGEAL TERATOMAS
3. LUMP IN THE ABDOMEN
4. OBSTRUCTIVE JAUNDICE
5. UNDESCENDED TESTES
6. MULTINODULAR GOITER
7. FEMORAL HERNIA
8. THYROGLOSSAL FISTULA
9. CARCINOMA OF THE BREAST
10. VARICOSE ULCER
11. CARCINOMA OF THE CHEEK
12. DERMOID CYST
13. LUMP IN BREAST
14. HYDROCELE
15. LIPOMA ON THE THIGH
16. CARCINOMA OF THE THYROID
17. MULTINODULAR GOITER
18. CARCINOMA OF THE TONGUE
19. CARCINOMA OF THE MANDIBLE
20. CYSTIC HYGROMA
21. RIGHT LEG CELLULITES
22. LIPOMA BACK
23. MENINGOMYELOCOELE

24. BURNS CONTRACTURE
25. RIGHT INDIRECT HERNIA
26. VENTRAL HERNIA
27. MEDIAN HERNIA
28. LUMBAR HERNIA
29. INGUINAL HERNIA
30. CONGENITAL FLUID HERNIA
31. ACTINOMYCOSIS OF THE FOOT
32. PAROTID TUMOR
33. LEFT SIDED HYDROCELE
34. CERVICAL LYMPHADENOPATHY
35. BRANCHIAL CYST
36. OBSTRUCTIVE JAUNDICE
37. BILATERAL CERVICAL LYMPHADENOPATHY
38. ELEPHANTIASIS
39. PILONIDAL SINUS
40. UNDESCENDED TESTES
41. PARAUMBILICAL HERNIA
42. THROMBOANGITIS OBLITERANS
43. CARCINOMA THYROID
44. FOURNIER'S GANGRENE
45. PERIPHERAL VASCULAR DISEASE
46. CARCINOMA OF THE MANDIBLE
47. NON HEALING ULCER
48. TROPHIC ULCER
49. CARCINOMA OF THE PENIS
50. POPLITEAL CYSTS
51. SUBMANDIBULAR SWELLING
52. GENERALIZED LYMPHADENOPATHY
53. MAXILLARY SWELLING
54. GOITER
55. SPLEENOMEGALY UNDER INVESTIGATION
56. DIABETIC FOOT
57. LEFT SIDED VARICOCELE

#### **D. JOURNAL CLUB**

1. CASE OF PILONAL SINUS – TRANSRECTAL USG – JOURNAL OF RADIOLOGY
2. SONOMAMMOGRAPHY IN CARCINOMA BREAST – DIAGNOSTIC RADIOLOGY
3. CT SCAN EVALUATION OF HEAD INJURY – JOURNAL OF TRAUMA
4. BLOOD TRANSFUSION AND ITS REACTION – MANUAL OF SURGICAL THERAPIES
5. LAPAROSCOPIC CHOLECYSTECTOMY – AMERICAN JOURNAL OF SURGERY
6. ERCP – AMERICAN JOURNAL OF SURGERY
7. SPLEENOMEGALY SURGERY – AMERICAN JOURNAL OF SURGERY
8. CHOLEDOCHOSCOPY – SURGICAL GYNEAC OBST ET AL
9. PARASTOMAL HERNIAS – ROB AND SMITH'S OPERATIVE SURGERY
10. LOOP ILEOSTOMY AND LOOP COLOSTOMY – AMERICAN JOURNAL OF SURGERY

- 11.LEFT HYDROCOELE – JOURNAL OF UROLOGY
- 12.NUTRITIONAL SUPPORT OF SURGERY – WASHINGTON MANUAL OF SURGERY
- 13.DIVERTICULAR DISEASES – SURGICAL CLINICS OF NORTH AMERICA
- 14.POST OPERATIVE COMPLICATIONS – AMERICAN JOURNAL OF SURGERY
- 15.BREAST RECONSTRUCTION – SURGICAL CLINICS OF NORTH AMERICA
- 16.RADIOTHERAPY IN CARCINOMA OF THE ESOPHAGUS – CANCER
- 17.VAGOTOMY AND ACID PEPTIC DISEASE – AMERICAN JOURNAL OF SURGERY
- 18.RUPTURED SPLEEN – JOURNAL OF TRAUMA
- 19.ACUTE PANCREATITIS AND ITS SURGERY – AMERICAN JOURNAL OF SURGERY
- 20.HYPOSPADIAS – ANNALS OF ROYAL COLLEGE OF SURGEONS
- 21.MEGACOLON AND NON MEGACOLON CONSTIPATION – BRITISH JOURNAL OF SURGERY
- 22.SKIN GRAFTING AND REJECTION – ANNALS OF SURGERY
- 23.ADVANCED TRAUMA AND LIFE SUPPORT – ATLS MANUAL
- 24.LASER THERAPY IN CANCER ESOPHAGUS – JOURNAL OF SURGICAL ONCOLOGY
- 25.URETEROLITHOTOMY – ROB AND SMITH'S OPERATIVE SURGERY
- 26.MALE INFERTILITY – UROLOGIC CLINICS OF NORTH AMERICA
- 27.SPLEENORAPHY – JOURNAL OF TRAUMA

**THERE MAY BE PERIODICAL WRITTEN TESTS AND CLINICAL CASE EXAMINATIONS AS A PART OF TEACHING ACTIVITY.**

**PRAVARA INSTITUTE OF MEDICAL SCIENCES**

**DEPARTMENT OF SURGERY**

**POST - GRADUATE (M.S.-GEN.SURGERY) COURSE.**

**\*\* EXAMINATION PATTERN (FINAL) \*\***

**THEORY (400 Marks. 4 Papers.)**

Showing the general distribution of syllabus:

- I. Basic sciences, applied embryology and anatomy, Physiology, Pathology, Pharmacology, General Surgery, Endocrines, Homeostasis, Burns, Congenital anomalies. Diseases of artery, veins & Lymphatics. Breast. Oral Cavity.
- II. Chest, Breast, GIT (Upper and Lower), Hepato-biliary, pancreas, Spleen, Salivary glands, Trauma. Head injury. Head Neck & Face.
- III. G.U.T (Upper & Lower), Penis, Testes, scrotum. Retroperitoneum, Ant. abd. wall, Hernia. Diaphragm. Pelvis & Pelvic Organs. Peritoneum.
- IV. Recent advances in ; Surgery & allied branches: Radiology, ENT, Opth, Ob/Gyn, Superspecialty : CVTS, plastic, Oncology, Diagnostic and therapeutic advances.

**PATTERN AND MARKS DISTRIBUTION :- 4 PAPERS (DIPLOMA - 3 PAPERS)  
ALL QUESTIONS ARE COMPULSORY**

Q. 1	-	Full	-	20 Marks
Q. 2	-	Full	-	20 Marks
Q. 3	-	Full	-	20 Marks
Q. 4	-	Notes(4)	-	40 Marks ( 10 Marks each)

- a.
- b.
- c.
- d.

**CLINICAL EXAMINATION (PRACTICALS) :-**

There will be FOUR examiners.

1. Internal (Chairman).
2. External. (Same state or region).
3. & 4. External ( Preferably from outside the State.)

**PATTERN:**

Long case(1)	100 Marks
Short case(1)	60 Marks
Short case(1)	60 Marks
Short case(1)	60 Marks

**Table Viva :-**

a. Anatomy - Hard & Soft parts.	30 Marks
b. Pathology-	30 Marks
c. X-ray & Investigations,Drugs	30 Marks
d. Instrument & Operation	30 Marks

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400 Marks  
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\* Dissertation will have grades.

It must be submitted **SIX** months before the University examination.

\* Log book is mandatory. Student must Record teaching activities, cases presented, operations done & observed, under-graduate teaching assignments completed. It will be reviewed every **Six** Months by the concerned PG Teacher & HOD and signed. Unsatisfactory LOG-BOOK may warrant an action against the student by appropriate authorities of the University.

**BOOKS RECOMMENDED:**  
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No	AUTHOR	TITLE	EDITION & YEAR	PUBLISHER
1.	R.C.G. Russell	Bailey & Love's practice of Surgery	24th 2004	Edward Arnold
2.	David C. Sabiston	Sabiston textbook of Surgery the biological basis of Modern Surgical Practice	15th 1997	A Prism Indian Edition
3.	John SP Lumley	Hamolton Bailey Demonstration of physical sign in clinical Surgery	18th 2000	Butter worth Heinmann
4.	Sunil Chumber	Essential of Surgery	1st 2005	Jaypee Brothers
5.	Seymour I Schwartz	Maingot's Abdominal	9th 1990	Appleton &

**Lange**

<b>Harold Ellis</b>	<b>Operation</b>		
<b>6. Juan Rosai</b>	<b>Rosai &amp; Ackerman's Surgical Pathology</b>	<b>9th 2004</b>	<b>Elsevier</b>
<b>7. F harles Brunicardi Dana K. Andersen Timothy R Billiar David L. Dunn John G. Hunter Raphael E. Pollock</b>	<b>Schwartz's Principals Surgery</b>	<b>8 th 2005</b>	<b>Mr Graw Hill</b>
<b>8. S. Das</b>	<b>A Manual of clinical Surgery</b>	<b>3rd 1990</b>	<b>Dr. S. Das</b>
<b>9. Zallinger</b>	<b>Atlas of Surgical Operation</b>		
<b>10.</b>	<b>Surgical disase in tropical Countries</b>		

**\*\* THIS IS JUST A GUIDE. STUDENTS ARE REQUIRED TO REFER TO OTHER STANDERD BOOKS DEDICATED TO PERTICULAR SYSTEMS. HE IS ALSO REQUIRED TO REFER TO VARIOUS RELEVANT JOURNALS, MONOGRAPHS, RECENT ADVANCES PUBLISHED FROM TIME TO TIME.**