

DEPARTMENT OF SURGERY
THIRD YEAR MEDICAL STUDENT SURGERY
CLERKSHIP
ORIENTATION
Booklet



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CHAIRMAN AND DISTINGUISHED TEACHING PROFESSOR
DEPARTMENT OF SURGERY

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SURGERY CLERKSHIP DIRECTOR

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SURGERY CLERKSHIP ADMINISTRATOR

DARRYL WILSON
SURGERY CLERKSHIP COORDINATOR

NOTE FROM THE CLERKSHIP DIRECTOR



On behalf of the Chairman, Faculty, and the Residents of the Department of Surgery, we welcome you to the Surgery Clerkship.

We hope that your Surgery clerkship rotation will prove to be a rich and rewarding experience.

GENERAL SURGERY CLERKSHIP INFORMATION

TABLE OF CONTENTS

	<u>Page</u>
• WHAT ARE THE GOALS OF THE SURGERY CLERKSHIP.....	4
• DESCRIPTION OF THE METHODS USED TO ACCOMPLISH THESE GOALS.....	5
• CONFERENCES AND LECTURES.....	5
• CLINICAL RESPONSIBILITIES.....	6
• TEXT BOOKS.....	7
• CASE REPORTS.....	7
• TEACHING LABORATORY.....	7
• OTHER MATERIALS.....	7
• OTHER REQUIREMENTS.....	8
• EVALUATIONS.....	8
• FINAL WRITTEN EXAM.....	9
• ROTATIONS.....	9
HOW IT OPERATES, SUNY SITES, AFFILIATES	
• PROBLEMS AND QUESTIONS CONCERNING ROTATION.....	10
• DEPARTMENT OF SURGERY CHIEF RESIDENTS AND PGY4 BEEPER LIST.....	11
• DEPARTMENT OF SURGERY CORE SITES AND SECONDARY SITES.....	12
• WHO'S WHO AND WHAT'S WHAT? WHERE TO REPORT ON THE FIRST DAY OF EACH ROTATION.....	13
• ROTATION SITE CONTACT INFORMATION.....	14 – 26
• STUDENT ABUSE.....	27
• TEACHING SCHEDULE.....	28
• OFFICE HOURS.....	29
• PERSONAL DATA FORM.....	30
• CURRICULUM OUTLINE, PRIME & NEW INNOVATIONS.....	31

GOALS

By the completion of the clerkship you will have:

1. Acquired the knowledge, skills, and attitudes necessary to care for the surgical patient.
2. Students will learn preoperative care of surgical patients,
What diseases may be best treated surgically, their presentation and basic path physiology patient selection, informed consent,
Students will experience and learn the ethical treatment of patients
A basic understanding of preoperative evaluation and assessment of surgical risk
3. Students will be exposed to operative practice of surgery
Students will experience small and major operative procedures
Students will learn basic suture techniques and basics sterile techniques
4. Students will learn postoperative management of patients
Students will learn fluid management postoperative
Students will learn about the hormone and catecholamine response to stress and trauma
Students will learn to identify important postoperative complications
Students will learn about the evaluation of trauma patients and resuscitation of trauma blunt and penetrating trauma patients
5. Students will learn about invasive monitoring techniques
(pa catheters and cvp catheters)
6. Students will learn about the management and evaluation of patients with GI bleeds
7. Students will learn about the management of wounds

These goals will be accomplished through didactic lectures, small group sessions, conferences and ward participation. Emphasis will be placed on the clinical, rather than the technical aspect of Surgery.

METHODS

CONFERENCES/LECTURES

- A.** Surgical Seminar discussions:
Thursdays 2:00-5:00 PM., Lecture Hall I. Discussions will be specific to surgical topics by SUNY, Health Science Center faculty. Student participation is mandatory throughout the eight-week rotation.
- B.** On-Service Attending Sessions.
These are small group sessions with the on service (ward) attending, concentrating on areas from Curriculum. This is the best time to ask questions, express your anxieties, and solve problems. Attend ALL scheduled KCH – UHB Lecture series. Handouts will be supplied to KCH, UHB, CT, & Transplant students. (Check with your ward attending for location and times.)
- C.** On-Service Rounds.
These are working and teaching rounds at the bedside with the chief and junior residents. Here the patient problems, plan of care, and goals of therapy are discussed. Check with your chief resident for location and times.
- D.** Thursday; 7:00–8:00 AM. Lecture Hall 4. Grand Rounds Conference. Resident level discussion of interesting cases, and Grand Rounds, in depth discussions of specific surgical topics by visiting or SUNY professors. THIS IS A MANDATORY CONFERENCE

NOTE: (These sessions run from September through June only).

CLINICAL RESPONSIBILITIES:

These vary somewhat among rotations, but in general the following guidelines should be followed:

1. Each new admissions or transfer onto the surgical service should have a complete history and physicals performed by the student on call that day. It is to be performed under the observation and with the assistance of a member of the housestaff, signed by the student and countersigned by the housestaff. Check with the housestaff to see if student write-ups are allowed on chart.
2. Follow each of your admissions daily, through the operating room, and until discharge. Write progress notes with the assistance of the housestaff. An MD must countersign all of your notes. Check with housestaff if student notes are allowed on the charts.
3. *With the assistance of your chief resident, arrange a night call schedule. For the two months of Surgery, you will be on call no more than every fourth night. Make your whereabouts known to the on-call resident so that you can easily be reached when patients are admitted.*
WEEKEND CALL: You must take at least one (1) call during each four (4) week rotation.
4. Surgical scrub attire is not automatically given to you at each hospital. At some facilities, only paper scrubs are available. It might be helpful to buy or borrow scrubs if you will be rotating at KCH. **SCRUBS ARE NOT TO BE WORN OUTSIDE OF THE O.R. UNLESS COVERED WITH A WHITE COAT. DO NOT WEAR SCRUBS HOME!**
5. ALWAYS wear your hospital I.D. card.

TEXTBOOKS

Schwartz: Principles of Surgery (McGraw Hill) is the definitive text. It contains more than we expect you to learn during your 8-week rotation. Use the Curriculum Outline to direct your reading. Sabiston is also acceptable, but slightly more difficult to read. Smaller review books are usually incomplete, superficial, and frequently outdated or inaccurate. They may be useful for an overview, but should not be the sole source of a student's reading.

CASE REPORTS

Each student is expected to do a Case Report/Presentation by the conclusion of each four (4) week rotation. Each will be based on a patient of your choice. It is designed to acquaint the student with the medical literature and the process of researching a particular topic. You should write a complete history and physical and a two-page paper concerning any aspect of the patient's disease you find interesting. The best way to get started is by referring to the Index Medicus. Then try to refer to papers in any of the following reputable surgical journals: Surgery; Archives of Surgery; Annals of Surgery; American Journal of Surgery; Surgery of Gynecology and Obstetrics; British Journal of Surgery; Surgical Clinics of North America; and Current Problems in Surgery. The latter two are especially good sources of review articles. The history and physical, pertinent X-rays, and your written paper will be discussed with a faculty member, usually together with the case reports of 2-3 classmates. The preceptor will be especially interested in your understanding of the patient and your knowledge and ability to reason concerning the disease process. For paper, cite references at end. Plagiarism is not accepted and can lead to dismissal from medical school.

OTHER REQUIREMENTS

You must submit the following items by the last day of the clerkship:

New Innovations Case Logger Log: On a daily basis you should log into New Innovations to list the cases you scrubbed for or observed from beginning to end. Keep a record of patient's chart number, initials, diagnosis, operation, location, and supervisor, etc,

Formative Evaluation Form: Submit this form to your ward attending during week 3 of your first four week rotation and immediately mail the signed, completed form to the Surgery Coordinator, Darryl Wilson (address on the form). Please retain a copy for your own records. It is the student's responsibility to submit and return completed form.
Failure to comply will result in a grade of "Incomplete".

Evaluation of the Clerkship: (Your evaluation of us): We respect your comments about the clerkship. The information you present may impact decisions about sites, assigning preceptors, lectures, and overall clerkship changes. You can access the overall clerkship survey through PRIME, the online course management. The Office of Institutional Research will e-mail the survey directly to you. Upon completion of the survey, your surgery written exam score will become available to you.

EVALUATION

A student must pass every component of the course to receive a passing grade. Each component is assigned a weight as noted below.

Final written examination (NBME) 50%

SUNY Faculty Preceptor evaluation 20%

Affiliate Faculty Preceptor evaluation 20%

SUNY Chief Resident evaluation 10%

THE FINAL WRITTEN EXAMINATION

- The written exam will be a shelf exam from the National Board of Medical Examiners.
- The Student Education Office will provide more information about the written exam to you in the completion of rotation issue memo.
- To prepare yourself in advance, it is recommended that you:
- Use recommended textbook for in depth reading of major topics in General Surgery.
- Don't wait until the last few weeks of the clerkship to do any reading. **Start now!!**
- Read up on the disease process of the patients you see particularly, those that go to surgery. Read before going to the operating room by looking at elective schedule.

DEPARTMENT OF SURGERY
PROBLEMS OR QUESTIONS CONCERNING ROTATION:

CONTACT: Faculty preceptor on service first and then chief resident.

CONTACT: Jillian Telford, MPA
Surgery Clerkship Program Administrator
(718) 270-2264
E-mail address: jtelford@downstate.edu
Or
Darryl Wilson
Surgery Clerkship Program Coordinator
(718) 270-2306/1982
E-mail address: dwilson@downstate.edu

CONTACT: Robert Schulze, M.D.
Surgery Clerkship Director
(718) 270-2683
E-mail address: rschulze@downstate.edu

NOTE:

Any absences due to illness or an emergency must be brought to the attention of Dr. Robert Schulze, Jillian Telford, Darryl Wilson and your site immediately. Failure to comply may lead to an incomplete until restitution is made.

**Surgery Student Education Office is located:
8th Floor, Room A8-504.**

DEPARTMENT OF SURGERY
CHIEF RESIDENTS BEEPER LIST

CHIEF RESIDENTS

Eric Klein..... (917) 205-4801
Irina Kovatch..... (917) 205-4830
Christopher Lau..... (917) 205-4832
Jason Levine..... (917) 205-4864
Sophia Fu..... (917) 219-2922
Sang Woo Pak..... (917) 219-2301
Jacob Eisdorfer..... (917) 218-7922
Kelly Sookraj..... (917) 205-4553

PGY 4 RESIDENTS

Maria Georgiades.....(917)205-3554
Lidie Lajoie.....(917)205-2519
Roseanna Lee.....(917)205-2923
Verena Liu.....(917)205-4882
Marilyn Ng.....(917)205-2885
Aliu Sanni.....(917)205-4777
Nefertiti Brown.....(917) 298-0156

DEPARTMENT OF SURGERY

SURGERY CLERKSHIP

CORE SITES-ROTATIONS

- State University of New York
- Kings County Hospital
- Brooklyn Veterans Administration Hospital
- SUNY @ Long Island College Hospital
- Lenox Hill Hospital
- Staten Island Hospital

SECONDARY SITES-ROTATIONS

- SUNY- DOWNTATE- TRANSPLANT SURGERY
- SUNY- DOWNSTATE- ORTHOPEDIC SURGERY
- SUNY- DOWNSTATE- CARDIOTHORACIC SURGERY
- LICH - DOWNSTATE - UROLOGY
- LICH- DOWNSTATE- OTOLARYNGOLOGY
- Maimonides Medical Center
- Brookdale Medical Center

DEPARTMENT OF SURGERY
SURGERY CLERKSHIP

WHOSE WHO AND WHAT'S WHAT?

WHERE DO I REPORT TO ON MY FIRST DAY OF EACH ROTATION?

1. On the first day of the Surgery Clerkship please go directly to your assigned hospital immediately after orientation.
2. On your second rotation period, please report directly to your assigned hospital site at the designated time indicated.

ON THE FIRST DAY OF YOUR ROTATION FOR EACH SITE

PLEASE HAVE YOUR HEALTH CLEARANCE INFORMATION

PLEASE REFER TO YOUR GUIDE TO CONTACT SITES AS NEEDED

SURGERY CLERKSHIP
Rotation:
SUNY- GENERAL SURGERY

CONTACT INFORMATION

Address:

SUNY-DOWNSTATE
450 Clarkson Avenue
Brooklyn, New York 11203
Office: B8-340

Preceptors:

Dr. Jerome Taylor, M.D.
(917) 219-0725
E-mail: Jerome.Taylor@downstate.edu

Secretary: Surgery Main Office (B8-340)

Sabrina Hartsfield-Burns
Tel: (718) 270-6718

Instructions:

1st Rotation:

On the first day of your rotation please report to the 8th floor conference room (B8-343) immediately following your Surgery Orientation.

2nd Rotation:

On the second rotation students must report at 6:00 a.m. to nursing station 81. Please find the chief residents on the service. You are also required to meet with Dr. Taylor on this day. The Chief Resident on the service will instruct you as to the place to time to meet with Dr. Taylor.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
Kings County Hospital Medical Center
GENERAL SURGERY

CONTACT INFORMATION

Address:

Kings County Hospital Medical Center
451 Clarkson Avenue
Brooklyn, New York 11203

Preceptor(s):

Dr. Theo Lewis, M.D.
Email: Tlewis@Downstate.edu

Secretary

Sheila McMullen
Tel: (718) 245-4146

Instructions:

1st Rotation:

On the first day of your rotation please report to Kings County Hospital (B4-101), immediately following your Surgery Orientation.

2nd Rotation:

On the second rotation period students must report at 6:00 am to SICU B-Building at Kings County Hospital. Please find the resident on the service.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
Brooklyn VA Medical Center
GENERAL SURGERY

CONTACT INFORMATION

Address:

Brooklyn VA Medical Center
800 Poly Place
Brooklyn, New York 11209

Preceptor(s):

Dr. Thomas Weber, M.D.
Email: Thomas.weber2@va.gov

Dr. Huelaine Webb, M.D.

Coordinator:

Lucretia Gonzales
Tel: (718) 836-3706

Instructions:

1st Rotation:

On the first day of your rotation please report to Department of Surgery Conference, 4th floor main building immediately following your Surgery Orientation.

2nd Rotation:

Please report to Department of Surgery Conference, 4th floor main building at 8:00 a.m.

PLEASE NOTE: You are required to bring THREE forms of ID so you can be process once you arrive to the BVA. Below are examples of acceptable pieces of ID.

*Passport (Foreign or U.S.) , *Drivers License, *State Issued non-drivers ID, *Social Security Card, *Alien Registration, *Permanent Resident Card, *Federal, State, Local Government ID, *Birth Certificate, *Voters Registration.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
SUNY @ Long Island College Hospital
GENERAL SURGERY

CONTACT INFORMATION

Address:

Long Island College Hospital
340 Henry Street
Brooklyn New York 11201

Preceptors:

Dr. Sandeep Sirsi, M.D.
Email: SSirsi@Downstate.edu

Dr. Melita Charles, M.D.
Email: MCharles@Downstate.edu

Secretary:

Monica Brown
Tel: (718) 780-1200

Instructions:

1st Rotation:

On the first day of your rotation please report to 100 Amity Street, corner of Henry Street 1st floor, immediately following your Surgery Orientation.

2nd Rotation:

Please report to 100 Amity Street, corner of Henry Street, 1st floor at 7:00 a.m.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP

Rotation:

Lenox Hill Hospital
GENERAL SURGERY

CONTACT INFORMATION

Address:

Lenox Hill Hospital
100 E. 77th Street (Between Lex and Park)
New York, New York 10075

Preceptor(s):

Dr. Shane Dawson, M.D.
Email: sdawson@nshs.edu
(212) 434-3285

Coordinator:

Leslie Sotomayor
Tel: (212) 434-2150

Instructions:

1st Rotation:

Upon arrival, please report to Ms. Blance Morales in the GME office located at 122 East 76th Street between Lexington and Park, 3rd floor (212)434-2686. She will process you for clearance to receive your ID from security. After you have been cleared, please follow the steps outlined in Leslie Sotomayor email. The residents will be expecting you to join the team once you have completed the above processing.

2nd Rotation:

On the second rotation follow the instructions above from 1st Rotation.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
Kings County Hospital
Trauma Surgery

CONTACT INFORMATION

Address:

Kings County Hospital
451 Clarkson Avenue
BROOKLYN, N.Y. 11203

Preceptor(s):

Dr. Carina K. Biggs, M.D.
Email: Carinakbiggs@yahoo.com

Secretary:

Patricia Hospitales
Tel: (718) 245-4686

Instructions:

1st Rotation:

On the first day of your rotation please Report to: Dr. Carina Biggs Office
KCHC Room C3211 at 11:00 a.m.

2nd Rotation:

On the second rotation students must report to: Dr. Carina Biggs Office
KCHC Room C3211 at 9:00 a.m. for Orientation.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
BROOKDALE HOSPITAL MEDICAL CENTER
GENERAL SURGERY

CONTACT INFORMATION

Address:

Linden Blvd at
Brookdale Plaza
Brooklyn, New York

Preceptor(s):

Dr. Ulhas Lotlikar, M.D.
Email: Ulotlikar@Brookdale.edu

Secretary:

Cindy Cheddar
Tel: (718) 245-5722

Instructions:

1st Rotation:

On the first day of your rotation please report to the 1st floor CHC, Use E 98 Entrance
Turn right. (near fleet bank) Room 175 immediately following your Surgery Orientation.

2nd Rotation:

For the second rotation students must follow instructions above from 1st Rotation.
Start Time: 9:00 a.m.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
Maimonides Medical Center
GENERAL SURGERY

CONTACT INFORMATION

Address:

4802 10th Avenue
Brooklyn, New York 11219

Preceptor(s):

Dr. Danny Sherwinter, M.D. Email: Dsherwinter@Maimonidesmed.org

Dr. Jason Shaw, M.D. Email: Jshaw@Maimonidesmed.org

Dr. Shahabuddin Ahmad, M.D. Sahmad@Maimonidesmed.org

Secretary:

Loretta Celendano
(Tel: (718) 283-8694

Instructions:

1st Rotation:

On the first day of your rotation please report to the Academic Affairs office, 903
49th Street, 2nd floor immediately following orientation.

2nd Rotation:

On the second rotation students must follow the above instructions from 1st Rotation.
Start time is at 9:00 a.m.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP

Rotation:

SUNY DOWNSTATE

Transplant Surgery

CONTACT INFORMATION

Address:

SUNY DOWNSTATE
450 Clarkson Avenue
Brooklyn, New York 11203
Office: B8-513

Preceptor(s):

Dr. Devon John, Chief
Email: Jdevon@Downstate.edu

Dr. Nabil Sumrani, M.D.
Email: Nsumrani@Downstate.edu

Secretary:

Terri Witherspoon
Tel: (718) 270-1898

Instructions:

1st Rotation:

On the first day of your rotation please report to Nursing Station 82 immediately following your Surgery Orientation and find the Chief Resident.

2nd Rotation:

On the second rotation students must follow the instructions above from 1st Rotation. Start time is 6:30 a.m.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
SUNY DOWNSTATE
Cardiothoracic Surgery

CONTACT INFORMATION

Address:

SUNY DOWNSTATE
450 Clarkson Avenue, Box #40
Brooklyn, New York 11203
Office: B8-312

Preceptor(s):

Dr. Vinay Tak, M.D. Chief
Email: Vtak@Downstate.edu

Dr. Daniel Lee, M.D
Email: Dlee@Downstate.edu

Dr. Peter Terry, M.D
Email: Pterry@Downstate.edu

Administrator:

Mina Braga
Tel: (718) 270-1981

Instructions:

1st Rotation:

On the first day of your rotation please report to CT-ICU Immediately following Surgery Orientation.

2nd Rotation:

On the second rotation students must report to CT-ICU: Start time 10:30 a.m.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP

Rotation:

SUNY DOWNSTATE

Orthopedic Surgery

CONTACT INFORMATION

Address:

SUNY DOWNSTATE
450 Clarkson Avenue
Brooklyn, New York 11203
Office: B7-308

Preceptor(s):

Dr. Aditya Maheshwari, M.D.
Email: Amaheshwari@Downstate.edu

Administrator:

Kino James
Tel: (718) 270-8995

Instructions:

1st Rotation:

On the first day of your rotation please report to King County B building 3rd floor immediately following your Surgery Orientation. Radiology conference room contact: Fracture Chief Resident.

2nd Rotation:

On the second rotation please follow instructions above from 1st Rotation.
Your reporting time is at 7:00 a.m.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
SUNY @ LICH - OTOLARYNGOLOGY

CONTACT INFORMATION

Address:

Long Island College Hospital
134 Atlantic Avenue (lower level)
Brooklyn, New York 11201

Preceptor:

Dr. Nira Goldstein, M.D. (located at SUNY)
E-mail: Nira.goldstein@downstate.edu
Tele: 718-270-1638

Krishnamurthi Sundaram, M.D. (located at LICH)
E-mail: krishsun@aol.com@aol.com
134 Atlantic Avenue (lower level)
Brooklyn, New York 11201
718-780-1282

Coordinator:

Nicole C. Fraser: Office B7-330
Tel: 718-270-1638

Instructions:

1st Rotation:

On the first day of your rotation the resident on call should be contacted. At LICH the resident can be reached through (718)780-1000. At SUNY the resident can be reached through paging operator (718)270-2121, and ask for the ENT resident on-call.

2nd Rotation:

On the second rotation the resident on call should be contacted prior to your first day to discuss your meeting on your first day. At LICH the resident can be reached through (718)780-1000. At SUNY the resident can be reached through paging operator (718)270-2121, and ask for the ENT resident on-call.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
SUNY@ LICH - UROLOGY

CONTACT INFORMATION

Address:

Long Island College Hospital (Fuller Building)
339 Hicks Street
Brooklyn, NY 11201

Preceptors:

Dr. Ciril Godec, M.D.
E-mail: ciril.godec@downstate.edu

Secretary/ Coordinator:

Camille Pipitone Tel: (718) 780-2766

Instructions:

1st Rotation:

On the first day of your rotation please report to the 7th floor of the Fuller Building immediately following your Surgery Orientation.

2nd Rotation:

On the second rotation students must report at 9:00 a.m. to 7th floor of the Fuller Building.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

SURGERY CLERKSHIP
Rotation:
Staten Island University Hospital

CONTACT INFORMATION

Address:

475 Seaview Avenue
Staten Island, New York 10305

Preceptor:

Dr. Scott Blum, M.D.
Email: Sbloom@siuh.edu

Residency Program Manager:

Kristen M. DeRespinis, MBA
Tel: (718) 226-1873 Fax: (718) 226-8695

Assistant Residency Coordinator:

Beth Sefershayan
Email: bsefershayan@siuh.edu
(718) 226-8630 Fax: (718) 226-8695

Instructions:

1st Rotation:

Immediately following orientation

On the first day of your rotation please report to the Genevieve Ebbro, GME Coordinator Dept, of Academic Affairs. You will be issued an ID badge, receive Corporate Compliance Training, and password. After you have completed that process, report to the Residency Education Office, 2nd floor, Heart Tower, Room 2HT 257.

2nd Rotation:

On the second rotation students must follow the above instructions from 1st Rotation.
Start time is at 9:00am.

BE SURE YOU TRAVEL WITH YOUR HEALTH CLEARANCE FORMS/ ID

STANDARDS OF CONDUCT

Uniform statement on standards of conduct for the faculty-student relationship

The clinical work you are about to begin can be stressful and many students find the transition to their new role somewhat challenging. In this new environment, it may not always be clear to you which behaviors are appropriate and which are outside the acceptable bounds. For the faculty-student relationship, there is an institution-wide policy in your medical school handbook that outlines the standards of behavior expected of your supervisors during clinical rotations. With respect to the residents who supervise you, we disseminate to them the following statement:

“Interactions between residents and medical students must be mutually respectful and civil. Students - are reminded that the clinical environment is a complex and stressful one and that constructive criticism is an important part of the learning process. However, mistreatment of students is not tolerated. Obvious examples of mistreatment include sexual harassment; offensive remarks about race, ethnicity, sexual orientation, age, religion, or physical disability; purposeful humiliation; or use of grades and evaluations in a punitive manner. It is also inappropriate to single out students to go on errands for the team, e.g. food runs, unrelated to their learning (unless this is done in a rotation involving all members of the team) or to have students leave rounds to perform paperwork or other routine tasks.”

We hope you never encounter any violations of these standards and never feel that you are being treated inappropriately. However, if you do find yourself in a situation that feels abusive or inappropriate, there is a clear and simple path for you to follow to have the situation addressed. Please contact the clerkship director immediately. You will not be penalized, nor will we allow your grade to be affected because you have raised a concern. If you are not comfortable contacting the clerkship director for any reason you are welcome to contact the medical school ombudsman, Dr. Michael Myers (270-1166 or fill out the ombudsman email form in PRIME), or the Associate Dean for Clinical Medicine, Dr. Jeanne Macrae (Jeanne.Macrae@downstate.edu) or one of the deans in the Office of Student Affairs (270-2187 or Sophie.Christoforou@downstate.edu, Lorraine.Terracina@downstate.edu).

Surgery Clerkship Medical Student Duty Hours Policy

In an effort to address the effects of fatigue and sleep deprivation on learning and patient care the following rules will apply to third year surgical clerkship students. Student duty during the clinical clerkships will be designed with these requirements in mind and the clerkship director will monitor and document student duty hours. Students will be required to keep a log of their hours to be returned to the clerkship director for review. These rules are intended to ensure that students get a realistic experience of being on a surgical service while still protecting the students and patients from student fatigue and sleep deprivation.

- 1. Duty hours are defined as all in-house clinical and academic activities related to a rotation including patient care, call, and on site educational activities. Duty hours do not include reading and preparation time spent away from the duty site.**
- 2. Duty hours must be limited to 80 hours per week, averaged over a 2 week period inclusive of all scheduled in-house call activities.**
- 3. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Students who take in-house call may remain in-house up to 6 additional hours to participate in didactic activities or to transfer care of patients.**
- 4. All students must be provided one day in seven free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all scheduled clinical, educational and administrative activities.**
- 5. All medical students on the third year surgery clerkship not on call are allowed to be released at 6:00 PM every day, except when in the OR, or are in the middle of a task that would be dangerous to a patient if the student were to leave in the middle. Students who wish to remain to complete a task may chose to do so, as long as they have a 10 hour respite before coming back to the hospital.**
- 6. Students will have adequate time to study before the shelf exam. This will include**
 - 1. No call after the Monday night before the Friday exam**
 - 2. Excused from all clinical duties at the conclusion of the Wednesday before the Friday exam.**

WISE MD

TO ACCESS WISE MD MODULES: FOLLOW THE INSTRUCTIONS BELOW

For students to self register to have access to WISE-MD (and CLIPP), they will need to visit www.med-u.org and select "Register" from the upper right hand corner. Students will be prompted to choose whether they are institutional subscribers or individual subscribers.

As they registering through your institution, they will need to select "Institutional." They will then need to fill out a form making sure to use their institutional email addresses. Once they submit the form an email will be sent to the students asking them to confirm their registration. Once that is all set, they can access the cases at any time.

DEPARTMENT OF SURGERY STUDENT EDUCATION

OFFICE HOURS

MONDAY	9:30 - 3:00
TUESDAY	9:30 - 3:00
WEDNESDAY	9:30 - 5:00
THURSDAY	9:30 - 3:00
FRIDAY	9:30 - 3:00

OFFICE HOURS WILL BE IN EFFECT EXCEPT WHEN OFFICE IS CLOSED FOR LUNCH TIME

Dr. Robert Schulze, M.D., Clerkship Director: Office Hours

Monday: 11:00 – 2:30

See Darryl Wilson or Jillian Telford: A8-504

THIRD YEAR MEDICAL STUDENT PERSONAL DATA FORM

Please complete this form before leaving the Surgery Clerkship Orientation. This information will become a part of your file and will be kept confidential.

PLEASE PRINT:

NAME	TELEPHONE NUMBER
LAST: _____	HOME () _____
FIRST: _____	CAMPUS () _____ CELL () _____
	BEEPER () _____
	E-Mail address: _____
ADDRESS: _____ _____ _____	SID# _____
	STUDENT BOX #
	DATE OF ROTATION:
	/ / /
	ROTATION SITES:

PRIME/NEW INNOVATIONS

CURRICULUM OUTLINE

*Please log on to PRIME to access the Curriculum Outline Information. You may download a copy for your convenience at any time.

*You should also access Prime to complete the Wise MD Modules.

IMPORTANT INFORMATION: NEW INNOVATIONS

You should be logging into New Innovations on a DAILY basis to log all your cases. You will only have access to log your cases DURING your rotation at each site. At the end of your four weeks you will not be allowed to log case from your previous four weeks.

The following information is required when logging your cases on New Innovations Case Logger.

- *Date Performed or Observed
- *Type of Procedure (If Procedure is not listed, add Procedure in the Comment Section)
- *Case Location
- *Role
- *Supervisor
- *Patient ID # (NO NAMES)
- *Patient Last Name (Is OK)
- *Patient Type
- *Patient Gender
- *Patient Age
- *Visit Type
- *Comments or (You can also log the type of procedure in this section)

CURRICULUM OUTLINE

THIRD-YEAR SURGERY CLERKSHIP

THYROID

- Anatomy: gross anatomy, blood supply, innervation of larynx
- Physiology: thyroid hormone synthesis, feedback control, metabolic effects
- Hyperthyroidism: clinical findings, laboratory diagnosis
- Thyroid masses: workup, pathology, characteristics of types of malignancy
- Therapy: solitary nodule, multinodular goiter
- Complications of thyroidectomy
- Thyroiditis: types, therapy

PARATHYROID

- Anatomy: embryologic origin, histology
- Physiology: metabolic actions of PTH
- Hyperparathyroidism: etiology primary, secondary, clinical findings, diagnosis, associated conditions, differential diagnosis of hypercalcemia
- Medical therapy of hyperparathyroidism
- Surgical therapy of hyperthyroidism: indications, extent of procedure

HEAD & NECK

- Neck masses: classification, diagnosis
- Etiology of head and neck malignancies
- Diagnosis of head and neck lesions
- TNM staging and prognosis
- Treatment: multidisciplinary
- Radical neck dissection: what is removed?
- Specific sites: lip, buccal mucosa, oral tongue, floor of mouth, base of tongue, tonsil, nasopharynx, salivary glands
- Solitary neck nodes with unknown primary: implications, workup

Continues.....

ADRENAL AND ENDOCRINE TUMORS

- Adrenal lesion: incidence, classification, diagnosis, localization, prognosis
- Adrenalectomy: indications, approaches, complications
- Hypercortisolism: etiology, differential diagnosis, treatment
- Pheochromocytomas: etiology, incidence, diagnosis, medical treatment, surgical treatment (especially perioperative preparation), prognosis
- Primary hyperaldosteronism: etiology, diagnosis, treatment
- Endocrine tumors ('APUDomas') : definition, sites, physiology, classification:
 - a. Insulinoma: clinical findings, differential diagnosis, localization, management
 - b. Gastrinoma: presentation, diagnosis and treatment
 - c. Glucagonoma: presentation, diagnosis and treatment
 - d. Somatostatinoma: presentation, diagnosis and treatment

LUNG

- Anatomy: segmental, lymphatic drainage, blood supply
- Differential diagnosis of lung masses
- Lung cancer: etiology, clinical findings, classification, diagnosis, TNM staging and prognosis
- Surgery for lung cancer: extent of procedure, contraindications, complications
- Adjuvant therapy for lung cancer

MEDIASTINUM

- Anatomy: Contents of anterior, middle and posterior
- Clinical findings, diagnosis and prognosis of mediastinal masses: including thymoma, Teratodermoids, neurogenic tumors, pericardial cysts, bronchogenic cysts, enteric cysts, neurenteric cysts
 - Mediastinitis: acute versus chronic
 - Mediastinal emphysema: etiology and diagnosis

BREAST

- Breast cancer: incidence, risk factors, protective factors
- Clinical findings and diagnosis
- Benign lesions: pathology, incidence, findings including mammary dysplasia, fibroadenoma, duct ectasia, intraductal papilloma, fat necrosis, mastitis, cystosarcoma phylloides, abscess
- TNM staging and prognosis
- Surgical procedures available: what is removed?
- Contraindications of mastectomy

- Complications of mastectomy: postoperative and long term
- Adjuvant and metastatic therapy: methods and indications

ESOPHOGUS

Hiatal Hernia

- Anatomy and physiology: how is esophagus protected from acid?
- Sliding versus paraesophageal: pathology, incidence and treatment
- Clinical findings of reflux
- Medical therapy
- Indications for and complications of surgery

Esophageal cancer

- Anatomy: blood supply, lymphatic drainage, histology
- Pathology: classification, prognosis
- Clinical findings
- Diagnosis
- Complications
- Treatment: contraindications to resection, approaches for palliation

STOMACH AND DUODENUM

Peptic ulcer disease

- Anatomy: blood supply, vagal innervation
- Physiology: gastric juice composition, regulation of secretion, mucosal barrier
- Etiology
- Diagnosis: clinical findings, laboratory and radiologic studies, endoscopy
- Non-operative therapy
- Operative therapy: indications, procedures available, complications

Gastric neoplasma

- Incidence, classification, pathology, prognosis, risk factors
- Diagnosis
- Treatment based on location, palliation
- Gastric ulcer: management, indications for operation
- Gastric polyps: findings, treatment
- Menetrier's disease: definition

GASTROINTESTINAL BLEEDING

- Etiology: most common cause in adult/infant, upper/lower gastrointestinal bleeding
- Other factors: systemic and synergistic factors
- Diagnosis: implications and workup of hematemesis, hematochezia, melena, guaiac positive stool
- Treatment: non-operative management and pre-operative preparation

Operation: indications, methods, timing

GALLBLADDER

- Anatomy: anomalies
- Physiology: bile, mucosa, hormonal regulation
- Gallstones: composition, etiology
- Clinical findings in cholecystitis, acalculous cholecystitis, cholangitis, choledocholithiasis, gallstone ileus
- Diagnosis: utility of plain Xray, oral cholecystograms, intravenous cholangiogram, percutaneous transhepatic cholangiogram, endoscopic retrograde cholangiopancreatography, sonography, pipida scan, blood studies
- Pharmacotherapy
- Surgical therapy: indications for cholecystectomy, choledochotomy, cholecystostomy, choledochoduodenostomy, sphincteroplasty
- Complications

Malignancies

- Gallbladder cancer: diagnosis, treatment, prognosis
- Porcelain gallbladder: definition, treatment
- Cancer of the bile ducts: pathology, clinical findings, diagnosis, treatment, prognosis
- Sclerosing cholangitis: pathology and treatment

LIVER

- Anatomy: gross, blood supply
- Hepatic tumors: pathology, clinical findings, diagnosis, treatment, prognosis
- Complications of major hepatic resection
- Hepatic abscess: pathology, etiology, findings, diagnosis, treatment, prognosis, amebic versus bacterial

PORTAL HYPERTENSION

- Anatomy: portal system and collaterals
- Etiology: presinusoidal, sinusoidal, and postsinusoidal portal hypertension
- Consequences of portal hypertension
- Variceal bleeding: diagnosis, emergency therapy, surgical therapy including indications, methods, prognosis
- Childs' classification

PANCREAS

Pancreatitis

- Anatomy: ducts, blood supply
- Physiology: exocrine, endocrine
- Etiology, pathogenesis, pathophysiology
- Complications
- Clinical findings and diagnosis: laboratory and radiologic, differential diagnosis
- Medical therapy for acute pancreatitis
- Surgery: indications, techniques available
- Recognition and management of pancreatic pseudocyst, abscess, pancreatic ancytes

Pancreatic neoplasms

- Incidence, pathology
- Clinical findings
- Diagnosis: laboratory, radiological, methods for obtaining tissue
- Treatment: curative versus palliative
- Complications

SPLEEN AND LYMPHOPROLIFERATIVE DISEASES

- Anatomy and physiology: functions
- Splenomegaly: diagnosis and workup
- Disease states which sometimes benefits from splenectomy: findings, etiology, therapy
- Hodgkin's disease: classification, clinical presentation, methods for clinical staging, indications for and performance of staging laparotomy
- Non-Hodgkin's lymphomas: differences from Hodgkin's
- Splenectomy: post-operative and long-term complications

HERNIA

- Anatomy: layers of abdominal wall, important structures in inguinal area
- Classification: reducible, incarcerated, strangulated, sliding, Richter's
- Types: indirect versus direct inguinal, femoral, umbilical, incisional definitions of rare types of hernia
- Incidence and etiology of common types
- Diagnosis
- Treatment: methods (in general)
- Reasons for recurrences
- Hydrocele, undescended testis, torsion testis: recognition and management

SMALL INTESTINE

Intestinal obstruction

- Classification
- Etiology: adhesion, hernia, tumors, inflammatory disease, volvulus, intussusception, obturator obstruction, vascular obstruction
- Clinical manifestations: small bowel versus paralytic ileus
- Complications
- Therapy: pre-operative preparation, timing of operation
- Determination of bowel viability

Neoplasma

- Incidence, pathology
- Clinical findings
- Diagnosis, treatment
- Peutz-Jeghers syndrome: definition, management

Radiation injury

- Etiology, pathology
- Therapy, complications

Meckel's diverticulum

- Definition, location, pathology
- Diagnosis, therapy

Mesenteric ischemia

- Anatomy: blood supply, histology
- Clinical findings
- Diagnosis
- Therapy: venous versus arterial

ACUTE ABDOMEN

- Definition of acute abdomen: findings
- Differential diagnosis: pain patterns associated with common etiologies
- Laboratory and radiological studies: when indicated and interpretation
- Operative preparation and timing

APPENDIX

- Anatomy: clinical correlates
- Etiology and incidence of appendicitis
- Clinical findings, confirmatory signs
- Laboratory diagnosis: blood, urine, Xray
- Differential diagnosis
- Therapy: appendectomy versus expectant therapy
- Complications
- Prognosis: ruptured versus unruptured
- Appendiceal tumors: incidence and classification

COLON, RECTUM AND ANUS

Cancer

- Incidence and etiology
- Routes and spread
- Clinical findings: right colon versus left colon versus rectum
- Diagnosis: rectal examination, sigmoidoscopy, X-ray, colonoscopy, carcinoembryonic antigen
- Therapy: extent resection determined by location of tumor
- Treatment in the face of complications: obstruction, perforation, bleeding, extension
- Classification and prognosis

Polyps

- Clinical findings
- Diagnosis
- Treatment
- Pathology
- Syndromes associated with colonic polyps: familial polyposis, Gardner's syndrome, juvenile polps, Peutz-Jegher's syndrome, pseudopolyposis

Diverticular disease of the colon

- Anatomy
- Etiology
- Clinical findings
- Diagnosis
- Complications
- Non-operative therapy
- Surgical therapy: indications, methods

PANCREAS

Pancreatitis

- Anatomy: ducts, blood supply
- Physiology: exocrine, endocrine
- Etiology, pathogenesis, pathophysiology
- Complications
- Clinical findings and diagnosis: laboratory and radiologic, differential diagnosis
- Medical therapy for acute pancreatitis
- Surgery: indications, techniques available
- Recognition and management of pancreatic pseudocyst, abscess, pancreatic ancytes

Pancreatic neoplasms

- Incidence, pathology
- Clinical findings
- Diagnosis: laboratory, radiological, methods for obtaining tissue
- Treatment: curative versus palliative
- Complications

SPLEEN AND LYMPHOPROLIFERATIVE DISEASES

- Anatomy and physiology: functions
- Splenomegaly: diagnosis and workup
- Disease states which sometimes benefits from splenectomy: findings, etiology, and therapy
- Hodgkin's disease: classification, clinical presentation, methods for clinical staging, indications for and performance of staging laparotomy
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- Incidence and etiology of common types
- Diagnosis
- Treatment: methods (in general)
- Reasons for recurrence

- Hydrocele, undescended testis, torsion testis: recognition and management

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Intestinal obstruction

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- Etiology: adhesion, hernia, tumors, inflammatory disease, volvulus, intussusception, obturator obstruction, vascular obstruction
- Clinical manifestations: small bowel versus paralytic ileus
- Complications
- Therapy: pre-operative preparation, timing of operation
- Determination of bowel viability

Neoplasia

- Incidence, pathology
- Clinical findings
- Diagnosis, treatment
- Peutz-Jeghers syndrome: definition, management

Radiation injury

- Etiology, pathology
- Therapy, complications

Meckel's diverticulum

- Definition, location, pathology
- Diagnosis, therapy

Mesenteric ischemia

- Anatomy: blood supply, histology
- Clinical findings
- Diagnosis
- Therapy: venous versus arterial

ACUTE ABDOMEN

- Definition of acute abdomen: findings
- Differential diagnosis: pain patterns associated with common etiologies
- Laboratory and radiological studies: when indicated and interpretation
- Operative preparation and timing

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- Differential diagnosis
- Therapy: appendectomy versus expectant therapy
- Complications
- Prognosis: ruptured versus
- Appendiceal tumors: incidence and classification

COLON, RECTUM AND ANUS

Cancer

- Incidence and etiology
- Routes and spread
- Clinical findings: right colon versus left colon versus rectum
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- Therapy: extent resection determined by location of tumor
- Treatment in the face of complications: obstruction, perforation, bleeding, extension
- Classification and prognosis

Polyps

- Clinical findings
- Diagnosis
- Treatment
- Pathology
- Syndromes associated with colonic polyps: familial polyposis, Gardner's syndrome, juvenile polyps, Peutz-Jegher's syndrome, and pseudopolyposis

Diverticular disease of the colon

- Anatomy
- Etiology
- Clinical findings
- Diagnosis
- Complications
- Non-operative therapy
- Surgical therapy: indications, methods
- Radiologic intervention for bleeding
- Diverticulosis versus diverticulitis
- Cecal diverticula: differences

Ulcerative colitis

- Pathology, incidence
- Patterns of involvement
- Clinical findings
- Diagnosis
- Complications: extracolonic, colonic
- Non-operative therapy
- Surgical therapy: indications, methods, complications
- Prognosis

Crohn's disease

- Pathology
- Patterns of involvement
- Incidence
- Clinical findings
- Diagnosis: laboratory results, radiologic, differentiation from ulcerative colitis
- Non-operative therapy
- Operative therapy: indications, methods, complications

Hemorrhoids

- Anatomy: muscular, venous drainage
- Etiology
- Treatment (operative and non-operative), indications, complications

Anal fissure

- Pathology, etiology
- Clinical findings, diagnosis
- Therapy: non-operative, indications and methods for operative surgery

Perirectal abscess and fistula

- Pathology and treatment of perirectal, ischiorectal, perianal abscesses
- Significance and management of fistula

PERIPHERAL ARTERIES

- Anatomy of arterial wall
- Atherosclerosis: stages, risk factors, pathogenesis
- Diagnosis of arterial occlusive disease: physical examination, non-invasive procedures, arteriography
- Non-operative management and control of risk factors

- Surgical treatment: endarterectomy, bypass, percutaneous transluminal angioplasty

Arterial embolism

- Source
- Diagnosis
- Treatment
- Post-operative complications

Lower extremity ischemia

- Anatomy: blood supply and collateral circulation
- Clinical findings
- Non-operative management, care of the diabetic foot
- Indications for operation
- Complications

Abdominal aortic aneurysm

- Etiology
- Diagnosis: clinical examination, sonography, aortography
- Operative method and complications
- Risk and treatment of rupture

Cerebrovascular occlusive disease

- Carotid disease: location of plaque, etiology of complications
- Definition of transient ischemia attack, cerebrovascular accident, amaurosis fugax, reversible ischemia neurologic deficit
- Diagnosis: examination, non-invasive, arteriography
- Non-operative therapy
- Operative therapy: indications, method, complications
- Vertebral disease: findings
- Subclavian steal syndrome: etiology, findings, treatment

HEART

Cardiopulmonary bypass

- Method
- Complications
- Congenital heart disease
- Etiology
- Occurrence
- Classification, sequelae, treatment: left to right shunt, right to left shunt, obstructive lesions
- Embryology, findings, complications, management, indications for and method of operative treatment, prognosis for each of the following:
 - Arterial septal defect: ostium primum

- Arterial septal defect: ostium secundum
- Ventricular septal defect
- Patent ductus arteriosus
- Complete atrioventricular canal
- Total anomalous pulmonary venous connection
- Pulmonic stenosis
- Aortic valvular stenosis
- Coarctation of the aorta
- Tetralogy of Fallot
- Transposition of the great vessels
- Vascular ring

Acquired heart disease

- Etiology: findings, complications, management, indications for and method of operative treatment, prognosis for each of the following:
 - Mitral stenosis
 - Mitral insufficiency
 - Aortic stenosis
 - Aortic insufficiency
 - Tricuspid disease
- Coronary artery disease: clinical findings, diagnosis, medical therapy, indications for surgical therapy, complications
- Cardiac transplantation: indications
- Dissecting aortic aneurysms: ascending versus descending, findings, treatment, prognosis

VEINS AND THROMBOEMBOLISM

Veins

- Anatomy: superficial, deep, perforators
- Pathogenesis of venous thrombosis
- Clinical course and findings
- Diagnosis: clinical, laboratory, radiologic
- Special problems in the pregnant patient
- Therapy of deep venous thrombosis
- Varicose veins: non-operative management, indications for operation
- Superficial phlebitis: findings, management
- Swollen leg: differential diagnosis

Pulmonary embolism

- Incidence
- Diagnosis: clinical, bloods, EKG, radiologic scanning
- Risk factors
- Therapy
- Indications for vena caval interruption: plication versus umbrella
- Massive embolism: findings, thrombolytic therapy, pulmonary, embolectomy
- Prophylaxis of venous thromboembolism: indications and methods

PEDIATRIC SURGERY

Respiratory distress immediate management, diagnosis, therapy of:

- Choanal atresia
- Diaphragmatic hernia
- Pneumothorax
- Congenital lobar emphysema
- Esophageal atresia, tracheo-esophageal fistula
- Cervical teratoma
- Congenital goiter
- Pierre-Robin syndrome
- Massive pneumoperitoneum
- Aspiration of foreign body
- Other: vascular ring, mediastinal masses, retropharyngeal abscess

Intestinal obstruction: diagnosis and therapy of:

- Duodenal obstruction
- Small bowel atresia
- Imperforate anus
- Meconium ileus, meconium plug
- Hirschsprung's disease
- Pyloric stenosis
- Intussusception
- Malrotation, volvulus

Jaundice: diagnosis and therapy of:

- Biliary atresia
- Choledochal cyst
- Cholelithiasis in children
- Hematological

External anatomic defects: complications and therapy of:

- Omphalocele
- Gastroschisis
- Meningocele
- Inguinal hernia, torsion testis, torsion appendix testis, undescended testis, hydrocele
- Umbilical hernia
- Sacrococcygeal teratoma

Abdominal mass: diagnosis, etiology, treatment, prognosis of:

- Multicystic kidney
- Polycystic kidney
- Neuroblastoma
- Wilm's tumors
- Ovarian tumors
- Rhabdomyosarcoma

Peritonitis in the newborn:

- Meconium peritonitis

- Gastric perforation
- Necrotizing enterocolitis

ANESTHESIOLOGY

- Regional anesthesia: mechanism of action, adverse reactions, recognition and treatment of complications
- Spinal anesthesia: methods, complications
- General anesthesia: advantages and disadvantages of commonly used agents including: nitrous oxide, cyclopropane, diethyl ether, halothane, enflurane, methoxyflurane, ketamine, narcotics, barbiturates, neuromuscular blockers
- Systemic effects of inhalation agents: respiratory, circulation, renal, hepatic, central nervous system, ocular
- Airway management, recognition of malfunctioning equipment
- Malignant hyperthermia: mechanism, predisposing factors, findings, therapy, prognosis, prevention
- Anesthetic risk factors and classification of patients
- Monitoring

SKIN AND SOFT TISSUES

Melanoma

- Etiology, location, appearance
- Clinical classification
- Histologic classification
- Clinical course and treatment
- Soft tissue sarcomas
- TNM Classification
- Prognosis
- Management: surgical, adjuvant

KIDNEYS

Kidney transplantation

- Indications
- Selection of donor: ABO blood grouping, mixed lymphocyte, ML-A typing
- Organ procurement: brain death, consent
- Post-operative therapy: azathioprine, cyclosporine, prednisone, antithymocyte globulin
- Rejection: etiology, timing, findings, and therapy of hyperacute, accelerated, acute, chronic rejection
- Other complications: acute tubular necrosis, sepsis, technical, steroid-related, cancer, atherosclerosis

- Prognosis
- Renovascular hypertension
- Physiology: rennin, angiotension
- One kidney versus two kidney models
- Etiology
- Diagnosis
- Treatment: medical versus surgical

WOUND HEALING AND INFECTION

- Wound healing
- Mechanisms and clinical correlates: first, second, third, intension
- Factors which inhibit wound healing

Surgical infections

- Antibiotics: bacterial sensitivities, complications
- Antibiotic prophylaxis: indications and methods
- Wound infection: etiology, prevention
- Intraabdominal abscess: etiology, clinical findings, radiologic diagnosis, therapy of subphrenic, subhepatic, pelvic abscesses

FLUIDS, ELECTROLYTES AND NUTRITION

Fluid and electrolytes

- Maintenance requirements
- Replacement of ongoing losses
- Replacement of previous losses
- Etiology, clinical findings and treatment of acid-base disturbance including:
 - Hypokalemia
 - Hyperkalemia
 - Hyponatremia
 - Hypernatremia
 - Hypocalcemia
 - Hypercalcemia
 - Metabolic acidosis
 - Metabolic alkalosis
 - Osmolar disturbance, inappropriate ADH reaction

Surgical nutrition

- Nutritional requirements: starvation, stress, post-operative
- Total parenteral nutrition: indications, requirements, method, complications

SHOCK AND TRAUMA

Shock

- Definition

- Mechanism: septic, hypovolemic, cardiogenic, neurogenic
- Clinical findings
- Etiologies
- Treatment
- Complications: pulmonary, oxygen transport, adult respiratory distress syndrome, multisystem organ failure
- Hemodynamic monitoring

Trauma

- Management: pre-hospital, resuscitation, primary assessment, secondary assessment, ancillary diagnostic modalities
- Neck trauma: diagnosis and therapy of injuries of airway, esophagus, cervical spine or cord, vessels, nerves
- Chest trauma: diagnosis and therapy of: rib fractures, hemothorax, pneumothorax, ruptured bronchus, aortic tear, cardiac injury, diaphragmatic rupture, pulmonary contusion, adult respiratory distress syndrome, thoracoabdominal injury esophageal injury

Abdominal trauma:

- Evaluation and immediate treatment including indications for tap and lavage and for laparotomy (celiotomy)
- Principles of management of injuries involving: kidney, ureter, bladder, urethra, spleen, gallbladder, common bile duct, pancreas, stomach, duodenum, small bowel, colon, rectum, major vessels

Extremity Trauma

- Evaluation of the injury extremity
- Principles of splinting fractures
- Definition of opened, closed, pathologic, stress compression, green stick, torus fractures
- Delayed union and non-union: definitions and etiology
- Recognition and treatment of common fractures and dislocations: clavical, humerus, distal forearms, wrist, hands, femur, knee joint, leg, ankle, foot, pelvis

The hand

- Principles of functioning, including anatomical relations
- Evaluation of hand injuries
- Principles of repair of tendon and osseous injuries
- Recognition and management of: entrapment syndromes, paronychia, terminal pulp infections, acute cellulites, tendon sheath infection, infective arthritis

Rehabilitation following trauma: assessment of disability, restoration of function

Special problems in pediatric trauma

Thermal injuries

Burns

- Physiology: functions of intact skin
- Classification of burns: first, second and third degree
- Estimation of percent of body surface burned
- Complications: fluid and electrolyte losses, red cell loss, catabolism, decrease in cardiac output, paralytic ileum, ulcer, pulmonary, infection, special problems in children

Frostbite

- Pathogenesis
- Classification
- Therapy

THE EYE

EYE

- Anatomy, globe, muscles, lids, orbital contents, bony orbit
- Visual testing
- Glaucoma: evaluation and treatment of open angle, narrow angle, congenital, secondary glaucoma
- Ptosis: thyroid disease versus space-occupying lesion
- Cranial nerve palsies: III, IV, VI
- Pupillary abnormalities: signs and significance of III nerve palsy, Horner's syndrome, Argyll Robertson pupil, Adie's pupil afferent pupil defects
- Visual field defects: significance of unilateral, bitemporal homonymous
- Refraction: definition of emmetropia, myopia, hypermetropia, accommodation, presbyopia, astigmatism, aphakia
- Diseases of the cornea: diagnosis and significance of infection, crystal deposition, pigment deposition, metallic deposits, dry eye, mucopolysaccharidoses
- Scleritis: definition, significance, associated diseases
- Strabismus: definition, treatment
- Iritis: Findings, etiology
- Red eye: differential diagnosis: acute conjunctivitis, acute iritis, acute glaucoma, corneal trauma or infection
- Diseases of the lens: subluxation, cataracts
- Diseases of the retina: vascular occlusion, muscular degeneration, retinal detachment, mass lesion
- Retinal diseases associated with systemic disorders: hypertension, arteriosclerosis, diabetes, sickle cell disease, drug retinopathy, collagen disease, metabolic defects
- Blurred vision: differential diagnosis
- Optic atrophy: etiologies

EAR, NOSE AND THROAT

Ear

- Recognition and management of:
 - Otitis externa
 - Bullous myringitis
 - Herpes zoster otitis
 - Malignant external otitis
 - Foreign body
 - Impacted cerumen
 - Traumatic perforation
 - Acute otitis media
 - Acute necrotizing otitis media
 - Chronic suppurative otitis media
 - Tuberculous otitis media
 - Serous otitis media
 - Cholesteatoma
 - Otosclerosis

- Meniere's disease
- Glomus jugulare
- Acoustic neuroma

Nose

- Recognition and management of:

- Fracture
- Septal hematoma
- CSF rhinorrhea
- Epistaxis: management in detail
- Foreign body
- Allergic rhinitis
- Sinusitis
- Nasopharyngeal angiofibroma

Throat

- Recognition and management of:

- Tonsillitis: indications for tonsillectomy, adenoidectomy
- Peritonsillar abscess
- Carcinoma of the tongue
- Cancer of the nasopharynx
- Cancer of the pyriform sinus
- Sialadenitis
- Acute epiglottitis: recognition and management
- Laryngeal stenosis
- Vocal cord paralysis
- Singer's nodule
- Ludwig's angina
- Tracheostomy: indications, Complications, alternatives

ORTHOPEDIC SURGERY

- Recognition and management of:

- Pyogenic arthritis
- Bone and joint tuberculosis
- Rheumatoid arthritis
- Osteoarthritis
- Gout
- Painful shoulder
- Spinal deformities
- Knee deformities
- Contractures
- Epiphyseal disorders
- Metabolic diseases
- True bone tumors

PLASTIC SURGERY

- Basic principles of cosmetic skin incision and wound closure
- Skin grafting and flaps: advantages and disadvantages of common methods
- Management of pressure sores

UROLOGY

- Principles of diagnosis of urogenital pathology
- Significance and differential diagnosis of:
 - Hematuria
 - Urinary retention
 - Incontinence
 - Ureteral colic
 - Frequency
 - Nocturia
 - Urgency
 - Dysuria
 - Changes in urinary stream
 - Erectile and ejaculatory dysfunction
- Recognition and management of:
 - Acute infections
 - Chronic infections
 - Urinary calculi
 - Urogenital neoplasms

NEUROSURGERY

- General principles of neurologic examination and diagnosis
- Recognition, diagnosis and management of:
 - Skull and spinal injuries and anomalies
 - Lesion of spinal cord and peripheral nerves:
 - disc, stenosis, trauma, tumor, syrinx, infection
 - Intracranial hemorrhage: epidural, subdural, subarachnoid, intracerebral
 - Brain tumors
 - Aneurysms and arteriovenous malformation
 - Central nervous system infections
 - Hydrocephalus
 - Dysgenetic states
 - Increased intracranial pressure
- Methods and indications for surgical relief of pain

OPERATIVE COMPLICATIONS, IN GENERAL

- Postoperative fever
- Cardiac: tachycardia, arrhythmia
- Respiratory: hypoxia, tachypnea, respiratory care, pulmonary embolism
- Renal: oliguria, urinary retention

- Other: paralytic ileus, shock, psychomia, transfusion reaction

SURGICAL SKILLS

General

- The chart: organize your thinking; document the patient's progress
- Physical diagnosis
- Sterile and scrub techniques
- The wound:
 - Methods for anesthesia and closure
 - Wound and dressing care
 - Suture and staple removal
 - Applications, indications, care and removal of drains
 - Abscess drainage
- Literature review: literature search and interpretation of scientific publications

Head, neck and chest

- Cardiopulmonary resuscitation
- Airway: Heimlich maneuver, ventilation by bag and mask, endotracheal intubation, transtracheal needle, crico-thyroidotomy
- Chest: Thoracentesis, pericardiocentesis, tube thoracotomy

Abdomen

- Nasogastric tube: insertion and maintenance
- Urethral catheterization
- Endoscopy: proctosigmoidoscopy
- Paracentesis
- Stomal care

Vascular access

- Blood sampling: venous and arterial
- Vascular catheterization: indication, care, method for peripheral venous, central venous, Swan- Ganz, and peripheral arterial access

