FLORIDA CT UNIVERS Graduate Programs—NEW C	SITY™ ourse proposal	
DEPARTMENT NAME: BMED	COLLEGE OF: BIOMEDICAL SCIENCE—	MEDICAL EDUCATION PROGRAM
RECOMMENDED COURSE IDENTIFICATION: PREFIXBMS COURSE NUMBER7165 (TO OBTAIN A COURSE NUMBER, CONTACT ERUDOLPH @FAU.EDU, COMPLETE COURSE TITLE INTEGRATED SURGERY CLERKSH)	EFFECTIVE DATE (first term course will be offered)
CREDITS: 12 Squire's Fundamenta Essentials of General	N: als of Radiology, 5 th Edition Nova Surgery, 4 th Edition Lawrence, B	lline ell, Dayton, Ahmed, Editors
GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR	X Pass/Fail,	SATISFACTORY/UNSATISFACTORY
COURSE DESCRIPTION, NO MORE THAN 3 LINES: The clerks Surgery represents a core discipline. Students will ac behaviors necessary to provide comprehensive pre-ope operative care.	quire clinical & critical thinking s	kills, knowledge, and professional
PREREQUISITES W/MINIMUM GRADE: COREQUISITES: PREREQUISITES, COREQUISITES & REGISTRATION CONTROLS SH *DEFAULT MINIMUM GRADE IS D		ATION CONTROLS (MAJOR, COLLEGE, LEVEL):
MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:	M. D.	
Other departments, colleges that might be affected by attach written comments from each. Anesthesia: Arvind Kapila, M.D. Surgery: Larry Brickman, M.D.	the new course must be consulted	. List entities that have been consulted and
SIGNATURES		SUPPORTING MATERIALS
Approved by: Department Chair: College Curriculum Chair: College Dean: UGPC Chair: Dean of the Graduate College:		Syllabus must include all details as shown in the UGPC Guidelines. Written Consent required from all departments affected. Go to: http://graduate.fau.edu/gpc/ to download this form and guidelines to fill out the form.

Email this form and syllabus to <u>diamond @fau.edu</u> and eqirjo @fau.edu one week **before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website by committee members prior to the meeting.

FAU Medical Education Program. 2013-2014

Syllabus :

 1. Course title : Integrated Surgery Clerkship

 Course number: BCC 7165

 Number of credit hours: 12

 Lecture/small group Hours:
 up to 4 hrs/week at JFK, per Blackboard

 Clinical Hours:
 up to 80 hrs/week at JFK, community physician offices per Blackboard

Students must follow the same duty hour rules followed by residents. Duty hours must not exceed 80 hours/week, averaged over a four-week period. Students must have one day (24 hrs) in seven free from all clinical/educational responsibilities, averaged over a four-week period.

2. Course prerequisites:

Accepted for matriculation in the FAU Medical Sciences program.

3. Course logistics:

- a. term:
- b. not an online course
- c. appropriate wards and clinics.

4. Course Administration:

Discipline	Clerkship Discipline coordinator	E-mail	Phone	Location
Anesthesia	Arvind Kapila, M.D.	alipak@bellsouth.net		JFK
Radiology	ТВА			
Surgery	Larry Brickman, M.D.	Brickma1@fau.edu	(W) 561-297-4336	FAU

Course support: JFK Clerkship Program Assistant Ms. Cathy Culpepper 2nd floor, 160 JFK Drive Phone: 561-548-1550 e-mail: cculpep1@fau.edu

Please note: Any official student communication from administration or program coordinator will be sent via email to students at their FAU e-mail addresses. *If students would like to meet with the clerkship discipline coordinators, they must call or e-mail to schedule an appointment.*

5. TA contact information:

N/A

6. Course description:

Rationale:

The Continuity Medicine Curriculum uses a chronic illness model and an integrated patient care approach to prepare students for medical practice.

The curriculum continues to place a priority on active, collaborative, learner-centered methodologies to

prioritize the knowledge, skills and attitudes required of physicians to practice in today's health care system. The clerkships at JFK will allow students to follow their patients through their care and treatment and participate in the medical, surgical, diagnostic and therapeutic aspects of the care required for management of acute and chronic illnesses. Students will continue to spend time with their Integrated Patient Care community preceptor following their patient panel and other patients presenting with acute and chronic illnesses.

Clinical experiences are designed to emphasize interdisciplinary, team-based, complex disease management with a major focus on continuity care, health maintenance and disease prevention. The third year clerkships will strive to not only integrate the basic and clinical sciences, but also the behavioral and social sciences with continued emphasis on these areas:

Humanistic medicine Professionalism Reflective Practice and Self-Improvement Quality Improvement and Outcomes Management Patient Safety

Information Management and Evidence Driven Decision Making Comprehensive Chronic Disease Management Inter-professional Care and Teamwork Population Based Medicine

The integrated surgery clerkship includes the disciplines of surgery, radiology and anesthesia over the 12-week period. In a given week, each student will spend time in each of these disciplines, and whenever possible will follow patients across disciplines. Didactic sessions will be provided for each of the disciplines, and will include conferences that are interdisciplinary in nature.

Students will interact with the radiologists routinely on various levels that include: follow-up on your patients test results; review patient images, observe interventional procedures performed on your patients; observe the interpretation of radiologic examinations; and discuss with the radiologist the appropriate exam(s) to be ordered based on the clinical symptoms and condition of a patient.

Faculty have participated in faculty development sessions to orient them to the FAU Medical Education Program goals, expectations for student learning and performance, as well as assessment of student clinical performance.

7. Course objectives/student learning outcomes:

The Integrated Surgery clerkship offers students parallel training in surgery, anesthesiology and radiology. Surgery represents a core discipline with most of the time devoted to this discipline. Students will acquire the clinical skills, critical thinking skills, knowledge, and professional behaviors necessary to provide comprehensive pre-operative evaluation of patients, and acquire basic skills in intra-operative and postoperative care. Students will spend half the rotation assigned to a general surgeon and the other half with a vascular surgeon in order to acquire the skills and knowledge about diseases that have surgery as a treatment modality. Students will be part of the operating room teams and assist in surgical procedures

Sample week:

	Monday	Tuesday	Wednesday	Thursday	Friday
Early AM	Anesthesia or	Anesthesia or	Anesthesia or	Anesthesia or	Anesthesia or
	O.R.	O.R.	O.R.	O.R.	O.R.
	O.R. or office	O.R. or office	O.R. or office	O.R. or office	O.R. or office
AM					
PM	O.R. or office	Radiology or surgery	O.R. or office or alternative clinical activity*	Academic half- day**	Radiology of surgery

Late PM	call		call

* students are expected to work with the surgery preceptor as much as possible, but this time may be used for the IPC4 community preceptor visit. This day and time will vary for each student, depending on the office hours of the assigned preceptor.

** will include PS4 curriculum

Students will be seeing patients with their surgery preceptor both in the inpatient and outpatient settings. It is expected that each student will perform one comprehensive history and physical examinations per week during this component of the clerkship. The write-ups should be thorough, and the student is expected to review all test results, including radiologic studies, and review the patient's previous medical records, if available. The student should then formulate an assessment of the patient's problems, to include a problem list, differential diagnosis, and management plan.

For patients seen in the inpatient area in this component of the clerkship, it is expected that the student will review all laboratory results, radiologic and other test results, and write a daily progress note (to be reviewed and countersigned by the preceptor).

For patients seen in the outpatient setting, students should make every attempt to see their patients in followup, and participate in as many aspects of their care as possible. In addition, if a patient seen by the student in either the inpatient or outpatient setting is transferred to another service (e.g. nursing home, hospice) students should see the patient at least once in the new setting.

The clerkship is 12 weeks-long: to ensure comparability of experiences for all students, there are two 6-week components spent with two different surgery preceptors. For example, weeks 1-6 are spent with Dr. X and weeks 7-12 with Dr. Y.

Within each 6 week block, the pair of students assigned to a preceptor is also switched between two schedules provided by the preceptor. Again, this is to ensure balancing of exposure to various patients and procedures.

Because the surgery schedule is dictated by the surgery preceptor schedule, the radiology and anesthesia experiences are arranged to fit those schedules and may change as well according to a schedule posted on Blackboard. For example, the anesthesia morning may be Monday in weeks 1-3, but Wednesday in weeks 4-6.

Students will be expected to assist the anesthesiology team. All students will show up at 6:30 a.m. at the pre-op area according to a schedule posted on Blackboard and then be sent to their assigned area. Students will rotate once through neurosurgery, endoscopy, cardiac surgery and EP stroke/Vascular Institute; twice in orthopedic surgery; four times in the operating room.

Radiology experiences will be provided by the JFK radiology team during discipline-specific teaching time on Tuesday, Wednesday or Friday, but also as part of the care of the patient pre- and post-surgery. During the clerkship, students will interact with the radiology faculty in order to fulfill the learning objectives for radiology for this clerkship. Students will rotate at least once through the various modalities by working side-by-side with a faculty member who is reviewing patient imaging data in the following areas of radiology: ED STAT, CT, MRI, fluoroscopy, breast imaging, plain film, nuclear medicine, interventional radiology. The schedule is posted to Blackboard.

Didactic topic schedule:

The lecture and didactic schedule to support this clerkship is outlined below. Please consult Blackboard for supporting materials, times and locations. There may be occasional changes in the order of this outline. Focus themes:

(A)=anesthesiology (R)=radiology (S)=surgery

Clerkship Week	Lecture Topic
	Medical record keeping

Week 1	Overview of perioperative management introduction to IV/inhalational agents (A)
	Ordering of radiologic exams (R)
	Fluid and electrolytes and shock (S,A)
Week 2	ICU anesthesia/management of airways (A)
	Radiology contrast reactions (R)
	Student report
	Colorectal surgery and hernias (S,R)
Week 3	Radiology of Hernias (R)
	Physicianship Skills 4
	Thyroid/parathyroid and adrenal gland (S,R)
Week 4	Radiology of thyroid/parathyroid and adrenal gland (R)
	Out-patient anesthesia and regional anesthesia (A)
	Student report
Week 5	Breast and surgical oncology (S R)
	Mammography (R)
	Student report
	Acute abdomen, appendix and small bowel (S,R)
Week 6	Special anesthesia considerations for emergency surgery in adult and geriatric patients
	(A)
	Radiology of abdomen (R)
	Student report
	Liver, biliary tract and pancreas (S,R)
Week 7	Radiology of abdomen (R)
	Student report
Week 8	Diseases of the vascular system (S,R)
	Cardiac patient anesthesia (A)
	Vascular imaging (R)
	Student report
Maala O	Esophagus, stomach, duodenum (S,R)
Week 9	Radiology of the esophagus, stomach, duodenum (R)
Maak 10	Physicianship Skills 4
Week 10	Geriatric considerations of surgery (A)
	Acute pain management (A)
	Student report
Week 11, 12	No academic half-day activities

Specific student responsibilities:

• Online patient log documentation of clinical exposure: Students are required to document all significant clinical experiences during the clerkship (anesthesia, radiology, surgery). There are two patient logs posted on Blackboard:

§ Integrated Surgery clerkship log

§ Radiology log

• WISE-MD cases: Web Initiative for Surgical Education Modules (WISE-MD) are meant to complement clinical activities and other educational sessions during the clerkship. Students are responsible for viewing all the cases during the clerkship. In addition, selected cases will serve as a mandatory method of filling any learning objectives gap that may by identified for any given student (as determined jointly by the student and discipline coordinator during regular reviews). The vignettes may also be utilized as an educational resource during student report, as determined by the clerkship medicine coordinator. Instructions to access the site are posted to Blackboard.

• Radiology teaching files: Teaching files are accessible to students via instructions on Blackboard: due to the size of the images, a Blackboard repository has been created and is hosted on the FAU web site. Students are

expected to ccess the site and review each case during the clerkship. Access to the cases will be monitored to ensure students have reviewed the cases during the clerkship.

• **Night call:** Because of the one-on-one relationships with community surgeons, it is anticipated that students will take part in emergencies on several occasions, including night emergencies. Such occurrences should be limited to approximately once per week, not to exceed eight occurrences during the entire clerkship.

• Write-ups in surgery: Each student will perform one comprehensive history and physical examinations per week during this component of the clerkship. The write-ups should be presented to the assigned surgical preceptor for the purpose of review, discussion and feedback. The student is expected to review all test results, including radiologic studies, and review the patient's previous medical records, if available. The student should then formulate an assessment of the patient's problems, to include a problem list, differential diagnosis, and management plan. The write-up should be thorough, but concise and to the point.

Each student is required to submit one (1) write-up to the OME (Ms. Culpepper) by Friday 5pm in Week 5. It will be reviewed by the clerkship surgery coordinator and will be used as part of the periodic feedback meetings with individual students.

• Written case report in radiology:

Each student is required to submit one (1) written case report to the OME (Ms. Culpepper) by Friday 5pm in Week 11. This case should be novel in that it has not been presented to the clerkship radiology coordinator in any other setting during the clerkship. Late reports will lead to deductions in points at the discretion of the clerkship radiology coordinator.

The clerkship radiology coordinator will review, provide feedback and grade the work. The report should be structured as follows:

Title Summary °Few sentences, description of what is being presented. Case Report °Clinical presentation, description and display of imaging findings. Discussion °Discussion of entity °Differential diagnosis based on imaging and clinical presentation °Teaching point/Summary References

A sample case report is posted on Blackboard under "Handouts and Links"

• Ongoing Clerkship Evaluation: Students will meet with the Clerkship Surgery Coordinator at times to be announced for clerkship evaluation and feedback sessions.

At this time, clinical patient logs will be reviewed, feedback on clinical activities will be discussed, and write-up may be reviewed. If certain critical clinical experiences have been lacking, a plan will be made to expose the student to those experiences either in a clinical manner or with WISE-MD. Any students exhibiting substandard performance will be provided with a plan toward remediation and improved performance.

• **Student report**: At each academic half-day weekly, student report will be run by a senior faculty member. Students will be asked to volunteer to orally present patients, radiologic findings, abnormal laboratory results, or other aspects of a patient's care for relevant interactive discussion.

Students will be expected to organize their discussions according to these categories, where applicable:

Diagnostic criteria

Epidemiology Natural history Pathophysiology Clinical presentation Physical findings Differential diagnosis Diagnostic testing Therapeutic management

Competency Based Objectives:

The objectives for the regional campus clerkship are aligned with those of the corresponding disciplines of the main campus. In addition, objectives specific to the Continuity Medicine Curriculum (CMC) have been added, to continue the emphasis on chronic illness and care.

The objectives continue to be presented in the context of the six ACGME competencies that provide the framework for graduate medical education. Each competency can be specifically mapped back to the institutional objectives of the FAU and of the CMC (found on Blackboard).

Student skills, behaviors and knowledge related to the objectives will be assessed by faculty in different ways and at different times in the clerkship, as described in the assessment section of this document.

Discipline: anesthesia

I. Patient Care

A. Role of anesthesia in patient care

Overall Goal:

By the end of the clerkship, the student will understand the importance of the anesthesiologist in caring for patients prior to surgery, during surgery and during the postoperative period.

B. <u>Case presentations</u>

Overall Goal:

By the completion of the clerkship, the student will demonstrate an ability to present a clear, organized, and concise case presentation.

C. Clinic/Ward Activities and Responsibilities

Overall Goal:

By the completion of the clerkship, the student will demonstrate a commitment to carrying out professional responsibilities and the ability to work well as part of a team.

Specific goal:

• Be able to discuss with the team the value of ordering laboratory studies for a normal patient in anticipation of either major or minor surgery

II Medical Knowledge

A. Use of intravenous and inhalational agents

Overall Goal:

By the completion of the clerkship, the student will be able to describe modern intravenous and inhalational agents.

B. Regional anesthesia

Overall Goal:

By the completion of the clerkship, the student will be able to describe and recommend use regional anesthesia agent for the care of patients.

C. Procedural skills

Overall Goal:

By the completion of the clerkship, the student will demonstrate how to induce anesthesia in healthy and ill patients.

D. Cardiac patient anesthesia

Overall Goal:

By the completion of the clerkship, the student will be able to understand the applications and contraindications of anesthesia for the cardiac patient.

E. Intensive care unit anesthesia

Overall Goal:

At the completion of this clerkship, the student will gain an appreciation of the importance of leadership and teamwork in treating a critically-ill patient

Specific goals:

• The student will be able to describe the use and applications of invasive monitoring, PA Catheters, CVP lines, arterial lines, and ICP lines at the bedside.

• Describe the fundamentals and basic principles of invasive monitoring.

• Understand the basics of mechanical ventilation and the use of the basic modes AC, SIMV, CPAP, and PS.

F. Role of anesthesia in pain management

Overall Goal:

At the completion of this clerkship, the student will gain an appreciation of the importance of leadership and teamwork in treating a critically-ill patient

III Practice-Based Learning and Improvement

Overall Goal:

By the completion of the clerkship, the student will demonstrate the ability to evaluate both their patient care practices and the scientific evidence, in order to improve the quality of care they deliver to patients.

IV Interpersonal and Communication Skills

Overall Goal:

Anesthesia is a field that requires effective communication among many health care professionals working as a team in the best interest of the patient. By the completion of the clerkship, the student will demonstrate interpersonal and communication skills that result in effective information exchange and collaboration with patients, their families, and other health care providers.

V. Professionalism (FAU 7-8-9)

Overall Goal: By the completion of the clerkship, the student will demonstrate a commitment to excellence and maturation in personal development. All physicians are expected to hold themselves to the highest standards of integrity, service, and professionalism.

Specific goals:

• Demonstrate respect, compassion and integrity at all times

• Establish and maintain effective collaborative professional relationships with colleagues and other health care professionals

- Demonstrate motivation to learn
- Demonstrate independence and initiative
- Recognize the importance of being receptive to guidance and criticism
- Recognize personal limitations in knowledge, experience, and resources and how to seek help
- · Work collaboratively as members of a healthcare team in a variety of settings
- Demonstrate a commitment to excellence and on-going professional development

• Demonstrate a commitment to carrying out professional responsibilities and the ability to work well as part of a team

VI. Systems-Based Practice

Overall Goal: By the completion of the clerkship, the student will recognize the importance of interdisciplinary collaboration in optimizing clinical outcomes for patients, work effectively with other health professionals, and demonstrate knowledge of the role of anesthesia in the broader community and health care system.

Discipline: radiology

I. Patient Care

A. Ordering of Radiologic Exams and Interpretation of Radiologic Reports

Overall Goal:

By the completion of the clerkship, the student will demonstrate the ability to order the appropriate radiologic exam based on the patient's presenting signs and symptoms and understand issues regarding the use of radiologic contrast agents.

B. Case presentations

Overall Goal:

By the completion of the clerkship, the student will demonstrate an ability to present a clear, organized, and concise case presentation.

Specific Objectives:

• Demonstrate the ability to present a 5-7 minute well organized power point presentation with inclusion of pertinent diagnostic images

• Structure of the case presentation should include history of present illness, complete relevant past history, relevant positive and negative physical examination results, imaging findings with differential diagnosis, assessment and plan with focus on coming to a diagnosis, and correlation with pathology where appropriate

C. Clinic/Ward Activities and Responsibilities

Overall Goal:

By the completion of the clerkship, the student will demonstrate a commitment to carrying out professional responsibilities and the ability to work well as part of a team.

II. Medical Knowledge A. Interpretation of plain films

Overall Goal:

By the completion of the clerkship, the student will be able to demonstrate an approach to interpret plain films and cross sectional radiographic anatomy, and recognize emergent/urgent plain film findings. The student will also begin to develop a differential diagnosis based on radiographic findings and patient history.

Specific goals:

• Identify emergent conditions on plain film such as: o Pneumothorax

Tension pneumothorax

o Mal-placed lines on chest x-ray

- o Free abdominal gas (pneumoperitoneum)
- Small bowel obstruction
- o Large bowel obstruction
- Identify urgent conditions on plain film such as: o Skeletal fractures
- o Pneumonia
- o Heart failure
- o Pleural effusion
- o GU calcifications
- Identify normal anatomy on cross sectional images of the chest, abdomen, pelvis, and brain
- Formulation of appropriate differential diagnoses for common radiologic findings
- Imaging of the chest: o Identify normal anatomy on PA, AP, and lateral chest films

 Recognize abnormal chest films including pleural effusion, pneumothorax, pneumonia and lobe location, changes of congestive heart failure, changes of chronic obstructive pulmonary disease, atelectasis, pulmonary nodules and masses

 $_{\odot}$ Recognize abnormal chest CTs including pulmonary nodules and masses

• Imaging of the abdomen: o Identify normal anatomy on AP views of the abdomen

 Recognize abnormal abdominal films including ileus, small bowel obstuction, large bowel obstruction, free air, and calcifications

o Identify normal anatomy on intravenous pyelogram, barium enema, and upper gastrointestinal series

 Recognize abnormal abdominal/pelvis CTs including diverticular disease, appendicitis, bowel obstruction, abdominal aortic aneurysms, pancreatitis, abdominal abscesses, ascites, and hepatic, pancreatic and renal masses

 \bullet Imaging of the spine and brain: $_{\odot}$ Identify normal anatomy of the spine and long bones in both adults and children

• Recognize abnormal bone radiographs including fractures, degenerative joint disease, osteoporosis (including vertebral collapse), and primary versus metastatic bone malignancy

 Recognize abnormal spine MRIs including central nervous system infection, masses, stroke syndromes, multiple sclerosis, disc disease, metastatic vertebral column disease, and cord compression

• Recognize abnormal head CTs including acute hemorrhage (subarachnoid, subdural, and parenchymal), infarcts, edema, mass effect, and hydrocephalus

o Distinguish acute from chronic disease

 Recognize abnormal CTs of the spine, including metastatic disease, degenerative joint disease, and disc disease

• Imaging of the breast: o Discuss basics of normal and abnormal mammograms

 $_{\odot}$ Discuss indications and utility of mammography, including usefulness as a screening method and as a surgical tool for resection and biopsy

• Nuclear Medicine:

o Discuss general principles and therapeutic uses of nuclear medicine

• Angiography:

o Discuss diagnostic and therapeutic principles of angiography

o Discuss indications for obtaining angiograms

o Discuss applications and utility of MRA angiograms

 $_{\odot}$ Recognize normal anatomy of the great vessels and other vasculature on angiograms

 Discuss indications for angiograms for abnormal processes including subarachnoid hemorrhage and berry aneurysms, vascular stenotic lesions, pulmonary angiogram for PE, aortic dissection, aortic trauma, and gastrointestinal bleeding • Ultrasound:

o Discuss general principles of ultrasound including the differences between 2D, Doppler, and M mode

• Magnetic Resonance Imaging:
 Discuss principles of magnetic resonance imaging, including differences in abilities and applications of MRI versus CT

o Identify normal anatomy on MRI of the head and spine

• Develop a competence regarding the radiologic work-up of: o Pulmonary embolism

- o Cardiac ischemia
- o Acute abdomen
- Neck and back pain

o Neurological syndromes including spinal cord compression, seizures, cerebrovascular accident, headaches, focal neurological findings, mental status changes, and head trauma

 Preventive medicine including spiral CT for pulmonary nodules, bone densitometry scans for osteoporosis, mammograms for breast cancer screening, and prostate ultrasound for cancer screening and nodule evaluation

- o Bone and joint pain
- o Hematuria and flank pain
- o Gastrointestinal bleeding
- Aortic aneurysms/dissections

B. Imaging procedures

Overall Goal:

By the completion of the clerkship, the student will understand the risks and benefits of non-interventional and interventional imaging procedures.

Specific goals:

a. Students will be able to describe the following interventional procedures and understand what is involved in the performance of these procedures: i. Angiography

- ii. Percutaneous CT guided biopsy
- iii. Percutaneous abscess drainage
- iv. Breast biopsy and needle localization

b. Students will be able to describe the following non-interventional procedures and what is required by the patient for completion of a satisfactory exam as well as demonstrate the advantages and disadvantages of each imaging procedure: i. Plain films

- ii. CT
- iii. MRI
- iv. Ultrasound
- v. PET scan
- vi. Nuclear imaging

c. Define the relative and absolute contra-indications of: i. CT with and without contrast

ii. MRI with and without contrast

C. "Peri-radiological" problems

Overall Goal:

By the completion of the clerkship, the student will demonstrate proficiency in the recognition of medical conditions that are affected or even precipitated by contrast agents.

III. Practice-Based Learning and Improvement

Overall Goal:

By the completion of the clerkship, the student will demonstrate the ability to evaluate both their patient care practices and the scientific evidence, in order to improve the quality of care they deliver to patients.

IV. Interpersonal and Communication Skills

Overall Goal: Radiology is a field that requires effective communication among many health care professionals working as a team in the best interest of the patient. By the completion of the clerkship, the student will demonstrate interpersonal and communication skills that result in effective information exchange and collaboration with patients, their families, and other health care providers.

V. Professionalism

Overall Goal: By the completion of the clerkship, the student will demonstrate a commitment to excellence and maturation in personal development. As physicians, radiologists are expected to hold themselves to the highest standards of integrity, service, and professionalism.

VI. Systems-Based Practice

Overall Goal: By the completion of the clerkship, the student will recognize the importance of interdisciplinary collaboration in optimizing clinical outcomes for patients, work effectively with other health professionals, and demonstrate knowledge of the role of radiology care in the broader community and health care system.

Discipline: surgery

I. Patient Care

Overall Goal: Students will provide appropriate, compassionate and effective care.

A. Patient History and Interviewing Skills

Overall Goal:

By the completion of the clerkship, the student will demonstrate the ability to obtain a complete patient history which elicits information necessary for diagnosis and treatment.

Specific goals:

• Perform a complete history, including identifying data, chief complaint, history of present illness, past medical history, feeding/nutritional history, developmental history, medications, allergies, family history, social history, and review of systems.

• Understand and recognize the differences in the interview according to variations in age and cultural background.

• Demonstrate effective interview skills, including appropriate initiation of interview, establishment of rapport, appropriate use of open-ended and closed questions, techniques for asking "difficult " questions, clarification skills, and appropriate summation and closing of interview.

• Demonstrate respect, empathy, responsiveness, and a non-judgmental attitude regardless of the patient's problems, personal characteristics or background.

• Identify strengths and weaknesses in his or her own history-taking skills

B. Physical Examination

Overall Goal:

By the completion of the clerkship, the student will be able to perform a physical examination.

Specific goals:

• Perform a complete physical exam with special attention to the patients' area of complaint by identifying pertinent findings, pursuing abnormal findings, using inspection, percussion, palpation, and auscultation. Know the range of normal variation of physical findings.

- Differentiate between normal and abnormal physical exam findings.
- Demonstrate respect, sensitivity, and flexibility while performing the physical examination.

C. Patient Write-ups and Progress Notes

Overall Goal:

By the completion of the clerkship, the student will demonstrate proficiency in writing a comprehensive patient history, physical examination, assessment, and plan, as well as, daily progress notes.

D. Case presentations

Overall Goal:

By the completion of the clerkship, the student will demonstrate an ability to present a clear, organized, and concise surgical case presentation.

Specific goals:

• Oral presentation will include all pertinent aspects of the patient's history, physical examination, laboratory evaluation and hospital course if applicable, including pertinent negatives.

• The presentation should be well organized following a set format in about 5 to 7 minutes or less

E. Data Gathering and Problem Solving

Overall Goal:

By the completion of the clerkship, the student will be able to obtain key data from the history and physical exam, identify problems and develop differential diagnoses, and formulate appropriate diagnostic and management plans.

Specific goals s:

- Demonstrate the ability to obtain important pertinent data from the history and physical examination.
- Identify problems in the case and formulate a problem list.
- Begin to analyze and interpret laboratory and radiologic data related to their patients.

F. Clinic/Ward Activities and Responsibilities

Overall Goal:

By the completion of the clerkship, the student will demonstrate a commitment to carrying out professional responsibilities and the ability to work well as part of a team.

II. Medical Knowledge

Overall goal: students must demonstrate knowledge of surgical science and apply this knowledge to patient care.

A. Procedural skills

Specific Objectives:

• Participate in operative procedures after appropriate review of anatomy, physiology and pharmacology appropriate to the surgical disease

• Acquire technical skills, specifically: a. Foley catheter placement (at least two male and two female patients) b. IV placement (At least three cases)

- c. Phlebotomy (At least three cases)
- d. Suturing and knot tying (At least two cases)
- e. Changing of dressing such as suture/staple removal (At least five cases)
- · Acquire additional technical skills that may include: a. Naso-gastric tube placement
- b. Arterial blood gas measurements
- c. Debridement of wounds
- d. Abcess drainage

B. Perioperative care

Overall Goal:

By the completion of the clerkship, the student will perform a complete history and physical examination. The student will review pharmacology of common anesthetic medications, antibiotics, and pain control agents. The student will integrate the physiology of cardiovascular, pulmonary, gastrointestinal, renal, hepatic, endocrine and nervous system function.

C. Postoperative care and complications

Overall Goal:

By the completion of the clerkship, the student will understand that prevention is the best form of management for postoperative complications.

Specific Objectives:

• Students will be able to obtain a focused history and physical exam that addresses pre-operative risk and post-operative care.

• Students should have exposure to a variety of bedside procedures and be able to relate the indications, contraindications and complications of various techniques.

• Demonstrate the ability to perform basic record keeping on a surgical service, such pre and post operative orders, operative note, daily progress note, discharge instructions.

• Describe the differential diagnosis of a patient having postoperative fever.

• Discuss wound complications in terms of predisposing risk factors as well as recognition, treatment, and prevention.

D. Fluid and Electrolyte Disorders

Overall Goal:

By the completion of the clerkship, the student will demonstrate proficiency in the recognition, evaluation, and initial management of basic fluid and electrolyte disorders in surgical situations.

E. Systems-based surgical principles

Overall Goal:

By the completion of the clerkship, the student will demonstrate proficiency in the recognition, evaluation, and initial management of common systems-specific problems.

F. Infectious Disease

Overall Goal:

By the completion of the clerkship, the student will demonstrate proficiency in the recognition, evaluation, treatment, and management of hospital-acquired infectious diseases.

G. Wound Care

Overall Goal:

By the completion of the clerkship, the student will understand the fundamental principles of wound healing and the physiologic sequeleae of diabetes and malnutrition.

III. Practice-Based Learning and Improvement

Overall Goal:

Students must be able to demonstrate the ability to evaluate their patient care practices and surgical knowledge base and identify areas of deficiency in order to improve the quality of care they deliver to surgical patients.

IV. Interpersonal and Communication Skills Overall Goal:

Students must demonstrate interpersonal and communication skills that result in effective information exchange and collaboration with patients, families and other healthcare providers.

Specific Objectives:

• Establish and maintain effective, empathetic and therapeutic communication with patients across a range of settings and situations.

- Develop the ability to communicate in a caring and compassionate way with patients and their families.
- Perform a clear organized and concise case presentation.

• Demonstrate effective documentation of progress notes, physicals and complete case write-ups that facilitate communication with other health care providers.

• Establish excellent communication and good rapport with faculty and staff.

• Work effectively with faculty and staff.

V. Professionalism

Overall Goal: By the completion of the clerkship, the student will demonstrate a commitment to professional responsibilities, ethical principles and sensitivity to a diverse patient population.

Specific Objectives:

• Demonstrate respect, compassion and integrity at all times.

• Establish and maintain effective collaborative professional relationships with colleagues and other health care professionals.

- Demonstrate motivation to learn.
- Demonstrate independence and initiative.
- Recognize the importance of being receptive to guidance and criticism.
- Recognize personal limitations in knowledge, experience, and resources and how to seek help.
- Demonstrate a commitment to excellence and on-going professional development.

• Demonstrate a commitment to carrying out professional responsibilities and the ability to work well as part of a team.

VI. Systems-Based Practice

Overall Goal: By the completion of the clerkship, the student will recognize the importance of interdisciplinary collaboration in optimizing clinical outcomes for patients, and work effectively with other health professionals.

Online patient log documentation of clinical exposure:

Students are required to document all significant clinical experiences during the clerkship in the Integrated Surgery clerkship log posted on Blackboard. In addition, students are required to log their experiences in the radiology log on Blackboard. Both logs will be reviewed periodically by the clerkship discipline coordinators to monitor progress, and if necessary, arrange for additional clinical experiences or WISE-MD web-based cases. The following diagnoses are the required experiences and procedures that students must log, in addition to logging demographic and social elements:

C Abcess drainage C Airway-Oral C Arterial blood gas C Bag-mask ventilation C Bag-tube ventilation C Debridement of wounds C Dressing change/suture removal C Foley placement-female C Foley placement-male C General anesthesia C IV placement C Laryngo/intubation C Naso-gastric tube placement C Oxygen administration C Phlebotomy C Rapid sequence induction C Rectal exam C Suture

C	Abdominal mass
C	Abdominal pain-appendicitis
C	Abdominal pain-cholecystitis
C	Colorectal neoplasm
C	Hepatobiliary disorder
С	Hernia
C	Infectious process-abcess
O	Infectious process-sepsis
C	Pancreatic disorder

The following activities are the required experiences that students must log in radiology. The cases might be encountered in the following: a surgical patient, a case viewed during radiology readout, or BlackBoard teaching file.

Note that this log will be monitored by the clerkship discipline coordinators throughout both the Integrated surgery and medicine clerkships to ensure exposure to appropriate content.

* *Other	
* Body	
C Aortic abdominal aneurysms	
C Ascites	
O Biliary Disease	MUSCULOSKELETAL
C Bowel Obstruction	C Bone Tumor
C Liver Tumors	C Long bone fracture
C Pneumoperitoneum	
C Renal Disease (stones,hydronephrosis,mass)	O Meniscus tear (Knee)
C Renal failure	C Osteoarthritis
* Breast	C Osteomyelitis, Bone tumor
C Artifacts	C Rheumatoid arthritis
C Benign Calcifications	C Rotator cuff tear (shoulder)
C Benign Masses	▼ NEURO
C Breast Cancer	O Brain Death
C Cystic Disease	
C Malignant Calcifications	O Brain infarct
* Chest	C Brain Tumor
C Airspace Disease	C Cerebral edema
C Bronchiectasis	C Disc herniation
C CHF	O Discitis, osteomyelitis of the spine
C Interstitial Disease (Edema, Infection)	C Intraparenchymal brain hemorrhage,
C Lung Cancer	C Spinal cord contusion
C Lung Collapse	
C Myocardial Infarction	O Spinal intradural or extradural tumor
C Pleural Disease (effusions, masses, Ca+)	C Subdural and epidural hematoma
C Pneumothorax C Pulmonary Embolus	C Thyroid cancer
C Pulmonary Embolus C Tuberculosis (primary, re-infection)	C Transfalcine and uncal herniation
Tuberculosis (primary, re-intection) Interventional	* Trauma
C Abscess management	O Ankle and other extremity fractures
C Arteriography	C Pelvic Fractures
C Cholangiography and biliary drainage	C Pneumomediastinum Pneumoperitoneum
C Dialysis Catheter placement	
C Gastrojejunostomy Catheter placement	O Pneumonia
C Gastrostomy Catheter placement	O Pneumothorax, with or without tension
C Intra arterial chemotherapy	C Small bowel obstruction
C Nephrostomy Catheter placement	C Spine fracture(s)
C Port placement	O Traumatic Aortic injury

8. Course evaluation method:

Examination Policy:

Assessment in the clerkship:

During the clerkship, each student will meet every three weeks with the clerkship surgery coordinator for a feedback session that covers anesthesia, radiology and surgery. All attending evaluations, patient logs, and participation in didactic sessions will be reviewed.

Expectations for the radiology case presentation:

In week 10, a student will present a radiology case to the clerkship radiology coordinator on either Tuesday or Friday afternoon. All students are expected to attend both days. The presentation will last 20-30 minutes. Student assignment regarding the day, location and time are posted on Blackboard.

Students are expected to prepare and present one of their patients to a student colleague, with a focus on the radiologic features and final diagnosis of the case. Each student will therefore both serve as presenter and discussant. The case must be different from the written case (page 7). Approval for case topic selection must be obtained from the clerkship radiology coordinator via e-mail prior to week 10 to prevent case topic overlap between students.

The presentation should be in a PowerPoint® format with incorporation of word slides, pertinent images, and pathology specimen if available. The student presenter will first give a brief pertinent history and display images revealing the important findings and pertinent negatives. The student discussant will then point out and describe the findings and give a differential diagnosis. The presenter will then narrow the differential diagnosis based on key imaging features and or history and provide a discussion of the disease entity as it pertains to radiologic features and diagnosis.

The presentation should include 2-3 references and a summary slide of up to three teaching points. It is recommended that the presenter and discussant prepare the cases together.

Both the presenter and discussant will be evaluated on the approach to reading a film, the formulation of a differential diagnosis, usage of the proper radiology "language", and the thoroughness of the discussion as it relates to the radiologic features of the disease entity, all based on clerkship discipline objectives. The use of appropriate imaging modalities for the case presented (EBM) should be discussed and will be evaluated.

The evaluation form is posted on Blackboard for reference.

Presenter:

- 1. Organization of presentation
- 2. Use of EBM
- 3. Discussion of differential diagnosis based on imaging features
- 4. Discussion of the disease entity with regard to imaging appearance on various imaging modalities
- 5. Use of similar cases to display other imaging features of entity not exemplified in case (can be from web)
- 6. Use of images to demonstrate imaging features in other diagnosis within the imaging differential diagnosis
- 7. Communication and Composure
- 8. Overall score

Discussant:

- 1. Approach to image interpretation
- 2. Differential diagnosis supported and explained
- 3. Appropriate use of radiologic terminology
- 4. Communication and Composure
- 5. Overall score

Expectations for the surgery oral examination:

On Thursday afternoon of week 12, each student will meet individually with two examiners for an oral examination.

It will last 20-30 minutes. By Friday 5 pm of Week 11, students must submit to the OME (Ms. Cathy Culpepper) a list of twelve (12) surgical cases they have been involved with.

One or two of these cases will be randomly selected by the two examiners for the oral examination. Be prepared to discuss any of the cases.

The discussion is formatted according to:

- History and physical
- Differential diagnosis, supported and explained
- Surgical fund of knowledge (based on clerkship discipline objectives)
- Utilization of laboratory studies in management
- Utilization of imaging studies in management
- Utilization of anesthesia
- Utilization of resources

Remember that the oral examination will be a very interactive experience. The examiners are looking to see how the student approaches and thinks about a case. Treatment plans and doses do not need to be memorized. Students should be able to discuss how to find and research this information if needed during the care of a patient.

The evaluation form used by the examiners is posted on Blackboard for reference.

Expectations for the NBME Subject Examination in surgery:

Students are expected to prepare independently. All examinations will be administered in the Biomedical Sciences building on the dates and times of week 12 of the clerkship posted on Blackboard. A student must sit for all examinations as scheduled. A student must obtain permission for an excused absence from the clerkship medicine coordinator and notify the Assistant Dean for Student Affairs prior to the time for sitting for a scheduled examination. In the event of a personal emergency, the course clerkship medicine coordinator and the Assistant Dean for Student Affairs must be notified of the absence as soon as possible. A missed examination will be rescheduled at the discretion of the clerkship medicine coordinator, at a time that does not interfere with other clinical work. Unexcused absences will result in a grade of zero (0) for the missed examination.

Performance in all aspects of the clerkship will be monitored. A single grade will be recorded for the Integrated surgery clerkship:

Anesthesia: 10% of the grade, of which

Clinical Performance Evaluation by Faculty	100
Radiology: 10% of the grade, of which	
Written case reports Oral case presentation Participation Completion of patient log	50 35 10 5
Surgery: 80% of the grade, of which	

Clinical Performance Evaluation by Faculty Preceptor	35
NBME Subject Examination in Surgery	35
Oral examination	25
Participation in academic half-day sessions and	

completion of patient log 5

Passing/failing/remediation policies

Students are to refer to The Student Rights and Responsibilities Handbook (on Blackboard).

Students are expected to achieve all of the following to pass the clerkship:

1. Achieve a score equal to or greater than 70 based on the clerkship grading policy.

2. For the NBME Subject exam, the student must pass, defined as scoring at or above the 5th percentile nationally compared to first takers at a similar period of the academic year.

3. Receive an overall "Fulfills CC3 expectations" rating for the aggregate Clinical Performance Evaluation.

- 4. Pass the oral exams at a minimum of 70%
- 5. Obtain a minimum of 70% on the written case reports

6. Attend all lectures with required case-based material or make-up absences with assigned work designated by clerkship discipline coordinator.

7. Completion of the patient logs in Blackboard.

If a student fails to achieve any of the above, an Incomplete grade for the clerkship will be assigned. If the NBME subject exam is below the 5th percentile, the student will be required to re-take the exam within 14 weeks of notification, unless approved to take it later by the Clerkship Discipline Coordinator. If the exam is passed on the second try, the overall grade will not change (i.e., only the first score will be used in determining the overall grade), and a "D" will be assigned. If a score at or above the 5th percentile on the second attempt is not achieved, a "F" grade will be assigned and remediation (which may include repeating the entire clerkship) will be determined by the Clerkship Discipline Coordinator in conjunction with the Junior/Senior Promotions Committee.

Students are to refer to The Student Rights and Responsibilities Handbook (on Blackboard).

9. Course grading scale:

A = 93-100; A- = 90-92; B+ = 88-89; B = 83-87; B - = 80-82; C+ = 78-79; C= 73-77; C- = 70-72; D+ = 68-69; D = 63-67; D- = 60-62; F = 59 and below.

10. Policy on makeup tests, etc.

The FAU Medical Education Program faculty and administration agree that student attendance and participation in all scheduled learning sessions are important to students' academic and professional progress, and ultimate success as physicians.

11. Special Course requirements:

Attendance at all activities is mandatory.

For an absence to be excused, a request must be made to the Clerkship Discipline Coordinator(s). Only Clerkship Discipline Coordinator(s) can excuse an absence. No missed work associated with a specific session can be made up without loss of credit for satisfactory completion unless an excused absence has been granted.

Repeated unexcused absences from required curricular activities may result in disciplinary action, up to and including dismissal from the FAU Medical Education Program.

Course and Faculty Evaluation:

The FAU Medical Education Program highly values the process of formal program evaluation and feedback. FAU Medical Education Program students are required to complete all course evaluations and program evaluation surveys distributed by the medical education administration. Grades and transcripts may be held for failure to submit required surveys.

Evaluations should be constructive, to help improve individual faculty's teaching, and the content and format of the courses.

Moreover, the timely completion of evaluations at the level of undergraduate medical education assists students in developing the administrative and organizational skills required throughout their academic and professional career. We appreciate your completing evaluations to help continue with improvement of the learning experiences and environment for all students.

12. Classroom etiquette policy:

Students should be considerate of each other by switching his/her cell phone to vibrate during all teaching activities.

If a telephone call is of an emergency nature and must be answered during class, the student should excuse him/herself from the lecture hall before conversing.

Laptop computer use should be limited to viewing and recording lecture notes rather than checking e-mail, playing or viewing other distracting websites. Students may be asked by faculty to turn off laptops during any session where group participation is required (such as PBL and wrap-up sessions).

13. Disability policy statement:

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) –in Boca Raton, SU 133 (561-297-3880)—and follow all OSD procedures.

14. Honor code policy:

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

The FAU Honor Code requires a faculty member, student, or staff member to notify an instructor when there is reason to believe an academic irregularity is occurring in a course. The instructor must pursue any reasonable allegation, taking action where appropriate. The following constitute academic irregularities:

1. The use of notes, books or assistance from or to other students while taking an examination or working on other assignments, unless specifically authorized by the instructor, are defined as acts of cheating.

2. The presentation of words or ideas from any other source as one's own is an act defined as plagiarism.

3. Other activities that interfere with the educational mission of the University.

For full details of the FAU Honor Code, see University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

The Code of Honorable and Professional Conduct should serve as a guide to medical students in matters related to academic integrity and professional conduct. The Code of Honorable and Professional Conduct provides a mechanism for peer evaluation of student conduct which the FAU faculty and administration believe is an essential component of medical education and development of medical students.

Textbooks:

15. Required texts/readings:

The following are textbooks that students are expected to purchase for use in the . All the textbooks listed below will be available at the FAU Bookstore at the beginning of the academic year.

The following are textbooks that students may elect to purchase for their relevance to the clerkship and as long-term reference books for the future.

Students are encouraged to purchase the textbooks independently to obtain the best pricing.

Discipline	Title	Author	Publisher
Radiology	Squire's Fundamentals of Radiology, 5 th Edition	Novelline	Harvard University Press
Radiology	ТВА		
Surgery	Essentials of General Surgery, 4 th Edition	Lawrence, Bell, Dayton, Ahmed, Editors	Lippincott Williams & Wilkins

Suggested Texts:

Students may find the following helpful reference sources.

Discipline	Title	Author	Publisher
Radiology	ТВА		

Web-based postings on Blackboard:

Students are encouraged to use their as much as possible in order to access resources, logs and other resources.

<u>Please refrain from checking personal e-mails during teaching periods</u>. <u>Please put your cell phone or other</u> <u>device on "vibrate" to minimize disruption</u>.

Please be punctual as a courtesy to your patients, staff, faculty and colleagues,

Academic half- day Handouts	Yes	Academic half- day objectives	Yes	Exams	no
Required Activites¥	Yes	Grades	Yes	Additional Materials	Yes
Procedure logs	Yes	Patient logs	Yes	Evaluation forms	Yes

Students should note that clinical schedules have been entered for each student in Blackboard. The schedule indicates where students need to be: the start-end times of clinical activities are subject to change.

For example, a community preceptor session may be listed as 8:00 a.m. to 12:00 p.m. The actual time is potentially different, such as 7:45 a.m. to 11:45 a.m. or 8:00 a.m. to 12:15 p.m. The time of the activity is defined by the attending physicians and supersedes only the timing listed in Blackboard.

16. Supplementary resources:

Web Resources:

(These resources and others may be accessed via the "Handouts and links" of the student e-Dossier on Blackboard)

Web-based postings:

Students are encouraged to carry their laptop with them as much as possible in order to access resources, patient log and other resources.

<u>Please refrain from checking personal e-mails during teaching periods</u>. <u>Please put your cell phone or pager on</u> <u>"vibrate" to minimize disruption.</u>

Please be punctual as a courtesy to your colleagues and faculty.

Session handouts	Yes	Session Objectives	Yes	Quizzes	Delivered via laptop
Required Activities	Yes	Grades	Yes	Exams	Delivered via laptop (except practicals)

17. Course topical outline, including dates:

Content outline:

Please refer to Blackboard for up-to-date information and session-related objectives and handouts.

Study Habits:

A major contribution to your learning is active engagement, which includes participation in the learning of other students and interaction with the instructors. Students are expected to be proactive and to access the Blackboard system to review items associated to individual sessions.

Learning in the field of medicine is a life-long endeavor that is not only necessary, but can and should be fun. One of the most important factors for learning is curiosity and sometimes, the best way to keep this curiosity stimulated is through our interaction with colleagues and peers. When learning in small groups, we have a chance to try to explain topics to each other, brainstorm solutions together, give each other constructive feedback, and support and validate each other. We encourage balancing studying alone with learning in small groups. It to important to develop a study routine to avoid "putting things off" and "cramming" and to minimize the stress we may add to our lives in that way.

Independent Study Time:

Independent Study Time allocated within the day time schedule is provided for students, on average about 9 hours per week.

Students are expected to use this time to further their learning. The time should be used for independent study or with peers. It is an opportunity to seek out faculty to interact with them outside the formal teaching setting. Since the PBL small-group format requires that students research learning objectives, the time may be used to prepare for the subsequent sessions. Finally, the time may used to work on assignments, problem-solving cases, off-campus visits or other tasks that are required by the courses.

Occasionally, some Independent Study Time sessions may be used for curriculum-related activities (e.g. standardized examinations): notice will be given as early as possible for these occasions.

Course and Faculty Evaluation:

FAU highly values the process of formal program evaluation and feedback. FAU students are required to complete all course evaluations and program evaluation surveys which are the Students Perception of Teaching (SPOT).

Grades and transcripts may be held for failure to submit required surveys. Evaluations should be constructive, to help improve individual faculty's teaching, and the content and format of the courses.

Moreover, the timely completion of evaluations at the level of undergraduate medical education assists students in developing the administrative and organizational skills required throughout their academic and professional career. We appreciate your completing evaluations to help continue with improvement of the learning experiences and environment for all students.