**SERVICE: Gynecology/ GYN Oncology**  
**Boca Raton Regional Hospital & Delray Medical Center - PGY 3**

### General description:

The FAU surgical residents will rotate in Gynecology/GYN Oncology at Boca Raton Regional Hospital and Delray Medical Center in their 3rd clinical year. The duration of this rotation is one month.

To maximize exposure and relevance to the General Surgery resident, the rotation will be organized as an apprenticeship rotation, where the residents are available to work 6 days out of the week, during day-time hours, to participate in all care rendered to Gynecology/GYN Oncology [GYN] patients of the assigned faculty, at Boca Raton Regional Hospital, Delray Medical Center and the offices of the assigned faculty, including: admission, diagnostic work-up, surgical procedures, post-operative care and discharge.

The Sinai resident will be a fully integrated member of the GYN team [as it exists], and work under the supervision of the GYN attending and other designated expert GYN personnel.

The surgical residents will attend the following **educational activities**:

- **Surgery Core/specialty curriculum and Resident Lectures** - 2 hours/week
- **Surgery M&M** - 1 hours/week
- **GYN Faculty Office Hours** – 1 four- to six-hour block/week

*Educational activities related to the Practice/Department ... TBD*

The GYN faculty will provide **lectures** on topics relevant to general surgeons throughout the surgery specialty curriculum.

### Competencies: Goals and Objectives:

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| **Patient Care:** | **Goals:**  
  During this rotation, the resident should learn and practice to:  
  - Demonstrate caring and **respectful behaviors** when interacting with patients and their families; demonstrate **sensitivity** to gender, age, ethnicity, religion, value systems and other potential differences of patients and their families; practice according to the clinical standards of Boca Raton Regional Hospital, Delray Medical Center, and affiliated outside facilities  
  - Gather patient and case specific essential, **comprehensive multi-source and accurate information** about their patients for initial or peri-operative work-up and patient |
follow-up in the inpatient and outpatient setting

- Using all available resources, under the guidance of the GYN attending staff and other designated GYN related expert personnel, make **informed decisions about diagnostic and therapeutic interventions** based on patient information, up-to-date scientific evidence and clinical judgment; evaluate and implement priorities in patient care and incorporate preventive measures

- Under the guidance of GYN attending staff and other designated GYN related expert personnel, develop and **carry out patient management plans**

- Under the guidance of the GYN attending staff and other designated OB-GYN related expert personnel, **monitor** closely the patients clinical progress, review and react to variances in patient progress or response to therapeutic interventions; **communicate** the details and changes of patient care, progress, and complications to the GYN attending staff in a timely manner

- Under close supervision of the OB-GYN attending, **counsel and educate patients** and their families on the state of the patient’s disease, necessary diagnostic tests, operative procedures and medical management

- Use information technology (hospital computer system) to support patient care decisions and patient education (electronic patient record, electronic radiology studies, online educational resources, including literature research)

- **Work closely with other healthcare professionals**, including those from other disciplines (Medicine, Oncology, Radiation Therapy, Endocrinology, Surgery, Mid-level providers, nurses, OB-GYN office staff, etc.), to provide patient-focused and optimum outcome driven care

- Assure that the **needs of the patient and team supersede individual preferences** when managing patient care; incorporate evidence-based medicine into patient care whenever possible; comply with changes in clinical practice and standards given by the senior/chief OB-GYN attending staff

**Objectives:**

During the rotation, the resident should:

- Under one-on-one supervision by the OB-GYN attending, **perform competently and/or assist in procedures considered essential for the area of practice**, including:
  a. Normal (vaginal) delivery and C-section
  b. Ano-recto-sigmoidoscopy, vaginoscopy, including PAP test, vaginal and cervix biopsy/Conization
  c. Dilatation and curettage
  d. Hysterectomy, oophorectomy (laparoscopic and open), ovarian biopsy
e. Hysteroscopy  
f. Incision and drainage of abscess and hematoma, excision of Bartholini’s gland  
g. Diagnostic laparoscopy/Laparotomy +/- lysis of adhesions  
h. Myomectomy  
i. Tubal ligation (laparoscopic, open)  
j. Repair of rectovaginal, vesicovaginal, urethrovaginal fistula  
k. (Incisional) Hernia repair  
l. Uterine evacuation  
m. Ultrasound (trans-abdominal, endovaginal)  
n. Other operations for ovarian/endometrial/vulvar cancer  

- Participate in the **pre- and post-operative surgical management** of patients before and after OB-GYN procedures. Attend GYN-Oncology clinic/attending office hours (as scheduled) at least once a week; participate on daily morning and afternoon patient rounds.  
- Plan and perform elective **surgery on pregnant and/or non-pregnant female patients** with attention to minimizing infectious risks, bleeding and other complications; participate in emergent surgical intervention in high-risk patients (i.e. ectopic pregnancy, emergency C-section, etc.).  
- **Manage post-operative surgical complications**, including wound infection, dehiscence, anastomotic stenosis and leaks, persistent bleeding, etc.  
- Under supervision by GYN attending Staff, perform/assist with **outpatient primary and preventive healthcare for female patients** as outlined in the medical knowledge competency, including age appropriate screening for STD’s, cancer, substance abuse, general health problems, psychosocial problems, etc.  
- Under supervision by GYN attending staff, perform/assist with **age appropriate counseling of female patients** including problems identified through screening, health risk behavior modification, (future) pregnancy, contraception, sterilization.  
- Under supervision by the senior/chief OB-GYN attending staff participate in the **consultation of patients with gynecologic problems**, as outlined in the medical knowledge competency, both in emergency room and hospitalized patients and **intra-operative consultation**.  
- On the GYN-Oncology service, under supervision by the GYN attending, participate in the **management of patients with cancers or the female reproductive tract**, including pre-, intra- and post-operative care and counseling.
Goals and Objectives - Obstetrics and General Gynecology:
Develop a fundamental understanding of the issues related to the age, appropriate outpatient and inpatient care for the pregnant and/or non-pregnant female patient. At the end of the Gynecology rotation, the resident should be able to do the following:

- **Outpatient Primary and Preventive Health Care for Female Patients:** develop fundamental knowledge of initial (ambulatory) assessment of female patients
  a. Obtain complete medical, surgical, social and family history
  b. Perform appropriate complete or focused physical exam in female patients
  c. In self-study and discussions with the GYN attending staff and other designated GYN related expert personnel develop an understanding of the basics of age-appropriate routine screening for selected diseases
    - Adolescents: Evidence of substance abuse, PAP test for sexually active adolescents, screening for STDs (gonorrhea, chlamydia, syphilis, hepatitis B, HIV)
    - Young adult: See adolescents AND where appropriate; cervical cytology annually during sexually active years, rubella testing, tuberculin skin test, fasting glucose, cholesterol and lipid profile, hepatitis B/C screening, dietary and nutrition assessment, screening for psychosocial problems (interpersonal and family relationships, sexual identity, personal development, etc.), immunization status (tetanus-diphtheria, hepatitis B, influenza, pneumococcus, measles-mumps-rubella, varicella, etc.), etc.
    - Mature adult (age 40 - 64): See young adult AND where appropriate: mammography (every 1 - 2 years after age 40), cardiovascular risk assessment, colon cancer screening (fecal occult blood, rectal exam, colonoscopy every 5 years after age 50), diabetes screening, thyroid screening (every 5 years after age 50), etc.
    - Elderly (>65): See mature adult AND where appropriate: screening for depression/emotional abuse or neglect, screening for osteoporosis (bone density, calcium, phosphate, vitamin D, history of pathologic fractures, etc.), cardiovascular and cancer disease, nutritional assessment
  d. In self-study and discussions with the GYN attending staff and other designated GYN related expert personnel develop an understanding of the basics of age-appropriate counseling
    - Adolescents: Discuss contraceptives and “safe sex” measures; discuss STDs, health high risk behaviors (hygiene, injury prevention, tobacco and substance abuse, promiscuity, etc.).
- Young adult: (recognize that GYN provider is often the chief care provider) discuss reproductive concerns as family planning, prevention of STDs, pregnancy care, infertility issues, menstrual variation and abnormalities (abnormal bleeding, amenorrhea, dysmenorrheal, etc.), common breast disorders (mastitis, galactorrhea, mastodynia, nodules, etc.)

- Mature adult: See young adult; recognize transition to post-menopause and related concerns; discuss cancer risks and screening (breast, endometrium, ovary, colon, skin, etc.); address common problems of osteoporosis, fecal and urinary incontinence, etc.; discuss management of PMS or PMDD, depression and anxiety

- Elderly: See mature adult; discuss and coordinate management of non-gynecologic diseases.

GYN-Oncology:

- **Biology of cancer**: understand clinical relevance of various carcinogens, including radiation, toxins and pharmacologic substances, viral oncogenes; understand basics of pro-oncogenic mutations and **DNA regulation**; describe inheritance patterns for common cancers of the female reproductive tract (ovarian/germ cell, endometrial, breast); describe significance of **cancer markers and genetic screening** studies; understand concepts of **tumor growth, neo-vascularization and metastasis** (differentiate between hematogenous, lymphatic and direct spread); understand the concept of **pre-malignant lesions** in the reproductive organs (dysplasia, carcinoma in situ, etc.); understand the role of the immune system/immunosuppression in tumor genesis, growth and metastasis

- Understand the concept of **tumor markers** in the screening, diagnosis and therapy follow-up of patients with various malignancies of the female reproductive tract.

- **TMN system and staging**: understand the basics of the TMN classification and staging of common gynecologic tumors and implications for therapy and prognosis

- **Anatomy**: understand the anatomy of the pelvis, relationships of intra- and extraperitoneal organs and reproductive organs to pelvic viscera and urinary organs; describe the blood supply and lymphatic drainage of major areas and organs

- **Pharmacology**: develop fundamental understanding of major (classes of) chemotherapeutic agents in the treatment of cancer of the reproductive organs (cytotoxic, radio-sensitizing, hormone, immune-modulating); describe major mechanisms of action and common side effects (marrow suppression, GI upset, infections, neuropathy and CNS effects, renal, hepatic and cardiac toxicity, etc.)
Radiation therapy (XRT): understand the principles of radiation therapy; describe indications for XRT in gynecologic tumors, and factors that influence the decision (age of patient, FIGO stage, medical conditions of patient, palliative or curative intent, etc.)

Specific Malignancies

a. Vulvar and vaginal malignancies:
   - Understand epidemiology, pathogenesis, signs and symptoms of vulvar and vaginal intraepithelial neoplasia (VIN and VAIN); describe differential diagnosis of pigmented and non-pigmented vulvar and vaginal lesions; perform and interpret diagnostic procedures (biopsy); establish treatment and follow-up plan
   - Invasive vulvar and vaginal carcinoma: understand epidemiology, signs and symptoms, and differentiation of melanoma, squamous cell carcinoma, basal cell carcinoma, Paget’s disease, verrucous carcinoma, Bartholini’s gland carcinoma; perform and interpret biopsies and other diagnostic work-up for staging (FIGO); understand medical and surgical treatment options for invasive vulvar and vaginal malignancies

b. Cervical malignancy:
   - Understand concept, causes, epidemiology, and signs and symptoms of cervical dysplasia; understand significance of PAP test; describe treatment options (cryosurgery, laser ablation, loop electrical excision, cold knife conization)
   - Invasive cervical cancer: describe pathogenesis, epidemiology, signs and symptoms; initiate and interpret appropriate diagnostic work-up for staging; describe basics of medical and surgical management; understand basics of prognosis, related to stage/histology and treatment response

c. Carcinoma of the uterus:
   - Endometrial hyperplasia: understand concept, causes, epidemiology, and signs and symptoms of endometrial dysplasia; describe major risk factors (obesity, anovulation, polycystic ovarian disease, estrogen or anti-estrogen exposure, family history, etc.); describe factors that influence treatment (classification/histology, age of patient, reproductive goals, risk of malignancy, etc.); describe basics of medical/surgical treatment for endometrial hyperplasia and potential complications
   - Carcinoma of the uterus: describe pathogenesis, epidemiology, signs and symptoms; initiate and interpret appropriate diagnostic work-up for staging; describe basics of medical and surgical management; understand basics of prognosis, related to stage/histology and treatment response
d. Carcinoma of the ovary / germ cell tumors
- describe pathogenesis, epidemiology, signs and symptoms; initiate and interpret appropriate diagnostic work-up for staging; describe basics of medical and surgical management; understand basics of prognosis, related to stage/histology and treatment response
- differentiate epithelial tumors, germ cell tumors, stromal tumors, sarcomas, tumors of low malignant potential, metastasis from non-gynecologic tumors

e. Gestational trophoblastic disease:
- Hydatiform mole
- Malignant gestational trophoblastic disease

Gynecology:

a. In self-study and discussions with the GYN attending staff and other designated GYN related expert personnel develop a basic understanding of the surgical and non-surgical diagnosis and management of disorders of the female reproductive tract
- Understand the principles of anatomy and normal physiology of the female reproductive tract, including uterus, ovary and fallopian tubes, vagina and perineal area, major hormonal axes (hypothalamus, pituitary, ovary, adrenal); understand the embryologic development of the female reproductive tract, its close association to urinary and intestinal tract development, and common developmental abnormalities
- GYN-related infectious disease: understand normal bacterial flora of female reproductive tract, barriers against infection, and common signs and symptoms relate to GYN infections
  - Vaginal and vulvar infections: understand principle types of infections, mode of transmission, primary etiologic agents; perform focused examination; interpret results of diagnostic tests (vagina pH, KOH microscopy, bacterial and viral culture, Gram-stain, colposcopy, biopsy); understand optimal choices of antibiotics based on clinical assessment and culture results.
  - Uterine/ovarian infections/PID: understand the diagnostic criteria for PID; describe common etiologic agents; perform history, exam and diagnostic tests to confirm diagnosis (see vaginal infections and STDs) and treat PID with appropriate antibiotics and/or surgical management; understand the potential long-term effects of PID (see STDs).
  - Understand etiology, signs, symptoms and differential diagnosis of tubo-ovarian abscess; describe appropriate work-up (clinical exam, ultrasound,
- **STDs**: Describe etiology, mode of transmission, epidemiology, signs and symptoms of most common STDs (gonorrhea, chlamydia, syphilis, hepatitis B and C, HIV, herpes simplex, human papilloma virus, chancroid); elicit pertinent history, perform focused examination; perform and interpret appropriate diagnostic tests (see vaginal infections; endocervical swab for nucleic acid probe, cervical/vaginal cytologic screening, scraping of ulcer, serologic tests, Tzanck smear); understand optimal choice for therapy of STDs based on clinical exam and culture results; understand implications of STDs for patient social and sexual contacts, (future) pregnancy (infertility, ectopic pregnancy, PID, fetal/neonatal infection); understand potential long-term sequelae of STD’s

- **Urinary tract infection** in female patients: understand common etiologic agents, signs and symptoms, diagnostic work-up (urinalysis and culture, ultrasound, cystoscopy); understand the types of infection (urethritis, cystitis, pyelonephritis) and distinguish from asymptomatic bacteruria; describe relation to hygiene, incontinence, birth trauma, pelvic floor defects, nephrolithiasis, etc.; describe optimal empiric and culture driven antibiotic therapy and indications/options for surgical intervention (stenting, nephrostomy, nephrectomy, etc.)

- **Toxic shock syndrome**: understand pathogenesis and microbiology of TSS, typical signs and symptoms, and differential diagnosis; describe diagnostic tests, principles of management; counsel on risk of recurrence and preventive measures

- **Abnormal/dysfunctional uterine/vaginal bleeding**: describe principal causes of abnormal uterine/vaginal bleeding and distinction from dysfunctional bleeding; perform pertinent history and focused exam, understand appropriate diagnostic tests (coagulation studies, hCG, endocrine studies, microbiologic studies, vaginoscopy, colposcopy, hysteroscopy, pelvic ultrasonography, laparoscopy, endometrial biopsy, etc.), understand principles of medical and surgical management of uterine bleeding, describe appropriate follow-up

- **Pelvic masses**: describe the major causes of (incidental) pelvic masses, including non-gynecologic sources (fibroids, adnexal cystic and solid masses, abscesses, ovarian cysts and benign neoplasms, malignant ovarian and myomatous and endometrial lesions, GI tumors, diverticulitis, appendicitis, etc.); understand signs and symptoms suggestive of malignancy (see GYN Oncology); elicit pertinent history (including menstrual abnormalities, etc.), perform exam and initiate / interpret diagnostic tests (vaginoscopy, ano-rectosigmoidoscopy, laparoscopy, ultrasound, CT, MRI, etc.); understand the role of
serum markers in cancer disease (see GYN Oncology); discuss medical and surgical management of common benign masses related to the female reproductive tract

- **Endometriosis**: understand theories on pathogenesis of endometriosis; describe typical history, signs and symptoms; perform focused exam and initiate/interpret diagnostic work-up (ultrasound, laparoscopy, etc.); describe the staging system for endometriosis and appropriate medical and surgical therapy.

- **Chronic Pelvic pain**: to be developed

b. **Reproductive endocrinology**:

- Describe physiology of hypothalamic-pituitary-ovarian axis, adrenal steroid synthesis, thyroid hormone synthesis and regulation; understand male and female gametogenesis; understand distribution and function of major hormone receptor classes related to the female reproductive tract

- Describe normal embryologic development and major abnormalities of Muellerian duct system, describe pathogenesis of most common disorders of sexual differentiation

- Understand anatomy of normal reproductive tract and normal appearance on common studies (ultrasound, CT, MRI, laparoscopy)

- Understand physiologic and anatomic changes during normal menstrual cycle, during pregnancy and menopause

- Understand pharmacology of major classes of medications with regard to uterine/trans-placental passage; describe major drugs used to induce ovulation, inhibit ovulation, inhibit effects of prostaglandins, alter menstrual cycle, induce or inhibit labor

- Develop basic understanding of the following disease processes:
  - **Major developmental abnormalities of uro-genital tract**: hymenal abnormalities, vaginal agenesis or septum, uterine septum, uni- or bicornuate uterus, hypospadia, urethro-vaginal and recto-vaginal fistula, etc.
  - **Primary vs. secondary amenorrhea**
  - **Menstrual irregularities and dysmenorrhea**, including classification, major etiologies and principles of diagnostic work-up (history and physical, hCG, serum gonadotropin assays, prolactin assay, progestin challenge test, thyroid function tests, dexamethasone suppression test, corticotrophin stimulation test, microbiologic tests, ultrasound, CT, hysterosalpingography, hysteroscopy, laparoscopy, etc.)
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<td>Premenstrual syndrome</td>
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<td>Hirsutism</td>
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<td>Polycystic ovary syndrome</td>
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<td>Recurrent pregnancy loss: differentiate hormonal vs. pharmacological, anatomic and psychological causes</td>
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<td>Infertility: understand concepts of primary vs. secondary infertility and hormonal and anatomic work-up</td>
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Objectives – General:

- Complete the reading assignment (see literature list)
- Attend all (≥ 85%) conferences, M&M conferences, Grand Rounds/other educational activities of the Department of Obstetrics and Gynecology during the rotation
- Take a post-rotation self-assessment test with at least 75% correct answers [if offered]

Practice-based Learning and Improvement:

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<td>Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. residents are expected to:</td>
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<td>Self-assessment: Analyze practice experience during the rotation, as well as own performance-based on interaction with other OB-GYN residents, attending(s) and other key OB-GYN staff; accept and use constructive criticism to improve performance in the six core competencies</td>
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<td>Medical knowledge: Self-directed and under mentorship of senior/Chief OB-GYN resident(s) and attending staff, locate, appraise and assimilate evidence from scientific studies related to their patients’ health problems; use evidence based medicine approach to patient care whenever possible; apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness; Use information technology to manage information, access online medical information; and support their own education; facilitate the learning of students and other healthcare professionals on the OB-GYN service by sharing pre-existing and newly acquired knowledge (general and case-based) on rounds and during formal educational activities. Residents are encouraged to ask/question the senior/Chief OB-GYN resident(s), attending staff and/or other OB-</td>
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| Interpersonal and Communication Skills: | **Goals and Objectives:**
Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patient’s families and professional associates. Residents are expected to:

- Develop interpersonal skills necessary to communicate effectively with patients, patient families, nursing staff, mid-level healthcare providers, ancillary staff, medical students, fellow residents and attending staff in the complex multi-specialty environment that constitutes OB-GYN surgery
- Contribute to creating an atmosphere of collegiality and mutual respect with all providers involved in the care of patients
- Develop effective listening, questioning and documentation skills
- Demonstrate ability to work effectively as a member of a team
- Demonstrate ethically sound behavior  (see also Professionalism)
- Share own knowledge with other members of the team to foster an environment of learning |

| Professionalism: | **Goals and Objectives:**
Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population. Residents are expected to: |
- Demonstrate **adherence to institutional and departmental standards and policies**
- Demonstrate **respect, compassion, integrity and ethical behavior** consistent with the **values of the department and institution**; develop and sustain sensitivity toward differences of age, gender, culture, religion, ethnicity or other diversities in both co-workers and patients
- Demonstrate ability to appropriately take on, **share and delegate responsibilities** with regard to patient care; balance own rights and privileges appropriately with responsibilities and accountability resulting from being a member of a team dedicated to patient care
- Demonstrate **commitment to excellence and on-going professional development**
- Under attending and other OB-GYN staff guidance, develop skill to **resolve potential problems and conflicts that occur in a complex corporate environment** using the appropriate channels and methods of communication to maximize patient care and surgical service performance
- Evaluate and formulate a response to **ethical questions**, including:
  a. Consideration regarding contraception in adolescents under the age of 21.
  b. Considerations in pregnancy with HIV, breast/ovarian or uterine cancer.
  c. Considerations in female psychosocial abuse / neglect.
  d. Considerations when gynecologic cancer is identified intra-operatively in patients undergoing surgery for other reasons (child bearing as well as post-menopausal)

### Systems-based Practice:

**Goals and Objectives:**
Residents must demonstrate an awareness of and responsiveness to the larger context and system of healthcare and the ability to effectively call on system resources to provide care that is of optimal value. Residents are expected to:

- Understand how choices in patient care and other professional practices affect other healthcare professionals, the healthcare organization and the larger society and how these elements of the system affect their own practice:
  a. Average cost of … **to be developed***************
  b. Understand the relevance and components of clinical pathways and how to deal with deviation.
- Practice cost-effective health care and resource allocation that does not compromise quality of care
- Know how to partner with healthcare managers (social work, case management, etc.) and other healthcare providers (PMD, specialty providers in and out of the hospital) to assess, coordinate and improve healthcare for the individual patient and cohorts of patients
In self-study and discussions with the GYN attending staff and other designated GYN related expert personnel develop an understanding of the basics of:

- **Obstetrics**: issues related to contraception, family planning and pregnancy-related issues and care
- **Genetics**: understand fundamentals of structure and replication of DNA, processes of mitosis and meiosis, describe mechanisms and significance of common aberrations (trisomy, monosomy, deletions, inversions, etc.), describe significance of common heritable diseases (i.e., cystic fibrosis, Tay-Sachs, hemophilia)
- **Physiology of pregnancy**: develop fundamental understanding of physiologic changes in pregnancy and relation to the duration (liver, kidney, heart and lungs, blood system and volume, coagulation, hormonal variations, etc.); understand common “normal” symptoms of pregnancy and physical findings suggesting pathology; interpret common diagnostic tests in pregnant patients; describe the bony, muscular and vascular anatomy of the pelvis and normal physiologic changes during pregnancy
- **Embryology and developmental biology**: describe normal process of gametogenesis, fertilization and major stages of embryologic development of singleton pregnancy, describe major considerations for multiple gestations
- **Pharmacology**: understand the role for nutritional supplementation during pregnancy (vitamins, protein-caloric needs, etc.), describe factors that influence drug availability and efficacy during pregnancy (protein binding, volume of distribution, hepatic and renal metabolism and excretion), describe factors that influence trans-placental drug transfer and major classes of medications contraindicated during pregnancy (i.e., for teratogenic effects)
- **Immunology during pregnancy**: understand how maternal immune response is altered during pregnancy, understand relations between maternal genital infections and adverse perinatal outcomes (pre-term labor, neonatal infection, maternal peri-partum infection, etc.), understand relation of STDs and neonatal infection and adverse outcomes (i.e., syphilis, gonorrhea, HIV)
- **Pregnancy and neoplasia**: understand relationship and potentially altered biological behavior of certain cancers during pregnancy (i.e., breast, ovarian), discuss basics of “pregnancy-related” malignant disease
- **Ectopic pregnancy**: understand the basic (risk) factors that may lead to
ectopic pregnancy, describe signs and symptoms related to ectopic pregnancy, describe diagnostic tests (physical examination, quantitative hCG, serum progesterone, ultrasound, laparoscopy, etc.) and options for management (medical vs. surgical), understand differential diagnosis, describe indications for anti-D-immune globulin.

- Routine pregnancy (prenatal) care: understand timing, rationale and implications of routine intra-pregnancy screenings and diagnostic tests, including maternal-fetal ultrasound, amniocentesis, chorion villous sampling, chordocentesis, serologic tests, etc.; understand importance of maternal risk/lifestyle counseling and behavior modification; discuss factors that predict high-risk pregnancy and management strategies to affect outcome

- Genetic counseling: develop fundamental understanding of how to elicit history for inherited disorders, including ethnic and race-specific risks, teratogenic exposure; understand the major modes of genetic inheritance (autosomal vs. sex-chromosome related, dominant vs. recessive, etc.); understand the concepts of variance and penetrance and their impact on prognosis for common genetic disorders

- Antepartum fetal monitoring: describe indications, contraindications, advantages and disadvantages of common antepartum diagnostic tests, including nonstress test, contraction stress test, biophysical profile, Doppler velocimetry, etc.

- Management of common pregnancy-related medical problems:

  Diabetes mellitus: classification of diabetes in pregnancy, screening tests, monitoring and control of blood sugars; assess and manage fetal and maternal complications (fetal malformations, disturbed fetal growth, ketoacidosis, etc.)

  - Urinary tract disease
  - Infectious disease
  - Hematologic disorders
  - Cardiopulmonary disease
  - Gastrointestinal disease
  - Endocrine disorders
  - Collagen vascular disorders
  - Psychiatric disorders and substance abuse
  - Bleeding in pregnancy: differentiation of causes, identification of placenta previa/abruption placenta; coagulation defects (hemophilia, thrombopenia, DIC, etc.)
- **Hypertension in pregnancy and eclampsia**: describe causes of hypertension in pregnancy, describe clinical manifestation of gestational hypertension and (pre-) eclampsia, assess severity of the problem and develop management plan; recognize complications (seizure, CVA, renal failure, pulmonary edema, HELLP, etc.)

- **General issues related to premature and post-term gestation**: (see GYN Educational handbook pages 54 - 55) determination of gestational age (using history, physical examination, ultrasound, etc.), understand general risk factors related to post-term pregnancy and premature labor, understand potential maternal and fetal complications of post-term pregnancy and premature labor, describe causes and diagnostic workup of premature rupture of membranes, describe principles of therapeutic intervention for post-term pregnancy and premature labor (labor induction, C-section, bed-rest, tocolytics, etc.).

- **Fetal death**: understand major/common causes of fetal death, describe history and clinical signs indicative of fetal death and diagnostic confirmation, understand maternal complications related to fetal death and retained fetus and basic principles and potential complications of surgical vs. medical uterine evacuation

- **Intrapartum care**: describe basics of maternal fetal monitoring (auscultation, electronic monitoring, umbilical artery Doppler velocimetry, etc.); understand causes, patterns and potential implications of abnormal fetal heart patterns (bradycardia, tachycardia, increased or decreased variance, early and late decelerations, etc.); understand options for intervention (induction of vaginal vs. operative delivery)

- **Labor and delivery**: obtain an accurate history of uterine contractions and ruptured membranes; perform pertinent physical examination to assess membranes, vaginal bleeding, fetal presentation and position, cervical effacement and dilatation, station of the presenting part, uterine contractility; understand basic indications for tocolysis, agents to induction of labor, cervical ripening agents and their potential complications; describe normal course of labor and assess progress of labor; identify major abnormalities of labor (failed induction, prolonged latent phase, protracted active phase, arrest of dilatation, protracted or arrested descent, etc); understand options for anesthesia/analgesia in labor and their major potential complications; understand options for intervention in abnormal labor (amniotomy, episiotomy, forceps or suction vaginal delivery, C-section)

- **Postpartum care**: understand principles of immediate and follow-up
neonate assessment (APGAR, blood gas analysis, clinical examination); recognize depressed neonate and participate in appropriate resuscitation; understand common puerperium problems and their management (uterine hemorrhage; infection; wound dehiscence; bladder instability or injury to urinary tract; mastitis and mastodynia; deep vein thrombosis and pulmonary embolism; including amniotic fluid embolism, psychiatric problems including postpartum depression;) counsel patients on postpartum contraception, breast feeding, future pregnancy or sterilization as appropriate (see GYN Educational Handbook pages 59 - 60)

- **Ectopic pregnancy**: describe major factors that predispose to ectopic pregnancy and differential diagnosis; perform pertinent history and focused exam; initiate and interpret diagnostic tests (hCG, serum progesterone, CBC, coagulation studies, endovaginal ultrasound, laparoscopy); describe indication, contraindications and potential complications of medical and surgical management; describe indications for anti-D-immune globulin; counsel patients on risk of recurrence

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**Appendix: S.C.O.R.E. Curriculum**

**Surgical Council on Resident Education**

The SCORE® Curriculum Outline for General Surgery is a list of topics to be covered in a five year general surgery residency program. Graduating residents are expected to be competent in six areas: patient care; medical knowledge; professionalism; interpersonal and communication skills; practice-based learning; and systems-based practice.

The SCORE Portal ([www.surgicalcore.org](http://www.surgicalcore.org)) has been created to provide educational content and assessment in support of the curriculum to general surgery residency programs. Learning “modules” are available on the portal for nearly all of the topics listed in this booklet.

**Patient Care Classification System**

The patient care curriculum topics are organized into 28 organ-based categories. Within each category, the topics are further separated into Diseases/Conditions and Operations/Procedures. With this edition, the topics are then stratified into two levels using the same classifications:

- **CORE** – Diseases and procedures encountered in general surgery for which a graduate of training will possess significant knowledge and be able to provide comprehensive care, including procedural competency.

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<td>• Hysterectomy</td>
</tr>
<tr>
<td>• Salpingo-oophorectomy</td>
</tr>
<tr>
<td><strong>Advanced</strong></td>
</tr>
<tr>
<td>• Cesarean Section</td>
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</tbody>
</table>
• **ADVANCED**— Diseases and procedures that are not consistently part of general surgery practice for which a graduate of training should have sufficient knowledge to make a diagnosis and provide initial management. In some instances, graduates will have sufficient knowledge and experience to provide comprehensive care.