

**Course:** Clinical Genetics & Prenatal Diagnosis

**Course Number** OBG 2105

**Department:** Obstetrics and Gynecology

**Faculty Coordinator:** Josiah Hawkins, M.D.

**Assistant Faculty Coordinators:** Alicia Kiszka, M.D.

**Hospital: (Location of rotation)** Parkland Health & Hospital System

- Parkland MFM Clinic-3<sup>rd</sup> floor WISH Building
- Parkland OBGYN Sono unit-4<sup>th</sup> floor WISH Building
- William P. Clements Jr. University Hospital

**Periods Offered:** 1-9

**Length:** 4 weeks

**Max # of Students:** 1

**First Day Contact:** Regina Williams [ObGynPost-Clerkship@UTSouthwestern.edu](mailto:ObGynPost-Clerkship@UTSouthwestern.edu),

**Office Phone:** 214-648-3306 **Office Location:** G6.202D

**First Contact Time:** 8:00 a.m.

**First Day Location:** UT Library (Building "D") in the Eugene McDermott Plaza

**Prerequisites:** Successful completion of OBGYN Clerkship

**I. Goals and Objectives**

<b>Goals</b> ( <i>examples-edit as needed</i> )	<b>Objectives</b> ( <i>describe activities that will support how goals are to be achieved</i> )	<b>Assessment methods</b> ( <i>examples-explain how student will be evaluated</i> )
<b>Patient Care:</b> 1. Apply the general principles of clinical genetics as the clinician practicing in obstetrics. 2. Obtain a thorough family genetic history and construct a genetic pedigree.	<ul style="list-style-type: none"><li>• Observe and participate in the use of ultrasound in a variety of clinical settings</li><li>• Observe procedures such as amniocentesis, genetic counseling and construction of genetic pedigree</li></ul>	<ul style="list-style-type: none"><li>• Direct observation by faculty, staff, and housestaff</li></ul>
<b>Medical knowledge:</b> 1. List the common indications for prenatal diagnosis. 2. Understand the various techniques utilized in prenatal diagnosis to include amniocentesis, chronic villus sampling, fetal blood	<ul style="list-style-type: none"><li>• Observe and participate in the use of ultrasound in a variety of clinical settings</li><li>• Self-study</li><li>• Didactic conferences</li><li>• Creation of genetics topic power presentation</li><li>• Participation in division</li></ul>	<ul style="list-style-type: none"><li>• Presentation of genetics powerpoint</li><li>• Participation in division conferences</li></ul>

<p>sampling, and sonography.</p> <p>3. List and be familiar with the indications for genetic counseling.</p>	<p>conferences</p>	
<p><b>Interpersonal and communication skills:</b>  <i>The students will effectively exchange information with patients, families, consultants and the team, including nurses, faculty, residents and ancillary staff.</i></p>	<ul style="list-style-type: none"> <li>• Participate in genetics counseling sessions</li> <li>• Provide care to patients in Genetics/Prenatal Diagnosis Clinic and ultrasound units</li> </ul>	<ul style="list-style-type: none"> <li>• Direct observation by faculty, staff and housestaff</li> </ul>
<p><b>Practice Based learning and Improvement:</b>  <i>Students will demonstrate the ability to assimilate scientific evidence and improve patient care practices.</i></p>	<ul style="list-style-type: none"> <li>• Complete study of a packet of articles about prenatal screening</li> <li>• and diagnosis of common chromosomal abnormalities and genetic conditions, obstetrical ultrasound, teratology, and genetic counseling for selected indications (e.g. advanced maternal age, abnormal serum screening, diabetes, and epilepsy) and apply that information to patient care</li> </ul>	<ul style="list-style-type: none"> <li>• Powerpoint presentation on genetics topic of choice</li> </ul>
<p><b>Professionalism:</b>  <i>Students must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population with issues centered on genetics and prenatal diagnosis</i></p>	<ul style="list-style-type: none"> <li>• Demonstrate professional and ethical behaviors in the clinical setting</li> <li>• Participate in the care of Genetics/Sono/Prenatal diagnosis patients as valuable member in the team</li> </ul>	<ul style="list-style-type: none"> <li>• Direct observation by faculty, staff and housestaff</li> </ul>
<p><b>Systems based practice:</b></p> <ol style="list-style-type: none"> <li>1. <i>Know how the care of the Genetics/Prenatal Diagnosis patient fits into the larger system of women's health care.</i></li> <li>2. <i>Work with the team and patients to optimize use of system resources</i></li> </ol>	<ul style="list-style-type: none"> <li>• Participate in division conferences</li> <li>• Work as a team member in a variety of clinical settings</li> </ul>	<ul style="list-style-type: none"> <li>• Direct observation by faculty, staff and housestaff</li> <li>• Group discussion</li> </ul>

## II. **Methods of Instruction:**

### A. Didactic

OB/GYN Ultrasound, Prenatal Diagnosis, and Genetics Grand Rounds are held on the second and fourth Friday of each month at noon in the G6200 conference room. During this conference we review abnormal sonogram findings, discuss indications and techniques for prenatal diagnosis, and review genetic abnormalities in detail.

### B. Clinical (schedule, faculty teaching, housestaff teaching)

Students receive instruction in 4 settings:

1. In the Parkland OB/GYN ultrasound unit by observing and participating in ultrasound examinations and observing amniocenteses
2. Working directly with the Parkland Genetic Counselors in the OB/GYN ultrasound unit to learn how to construct a pedigree and provide counseling for common conditions;
3. In the Parkland MFM Clinic which meets on Tuesday and is dedicated to genetics and fetal anomalies; and
4. At the UTSW POB2 MFM office, where students also participate in counseling and observe ultrasound and prenatal diagnosis procedures on referred patients.

A weekly schedule is shown below:

**Monday am:** Parkland OB/GYN ultrasound unit (“twin day”)

**Monday pm:** UTSW POB2 MFM office

**Tuesday am:** Parkland OB/GYN ultrasound (“anomaly day”)

**Tuesday pm:** Parkland MFM Clinic for genetic disorders and fetal anomalies

**Wednesday am:** Attend didactic OB/GYN conferences with residents

**Wednesday pm:** Parkland OB/GYN ultrasound unit and Genetic Counseling

**Thursday am & pm** Parkland OB/GYN ultrasound unit (“amniocentesis and targeted ultrasound day”)

**Friday** Time to work on end-of-rotation presentation

- ### III. **Overview of student responsibilities**
- Students receive and are expected to read a packet of articles about prenatal screening and diagnosis of common chromosomal abnormalities and genetic conditions, obstetrical ultrasound, teratology, and genetic counseling for selected indications (e.g. advanced maternal age, abnormal serum screening, diabetes, and epilepsy). Students are expected to attend and participate in all of the activities listed in the clinical schedule above and to prepare a short presentation on a genetic or prenatal diagnosis topic of

their choice by the end of the rotation. Any anticipated absences should be reported to Dr. Dashe in advance.

IV. **Method of evaluation of students and requirements:**

Evaluation based on assessment methods listed above.

**Final Grade: Pass/Fail**