Ultrasound imaging of the female pelvis in Gynecology and Obstetrics: From basic concepts to improving pregnancy outcomes

Presented by Baylor College of Medicine **Department of Obstetrics & Gynecology** in collaboration with AlUM



# Annual OB-GYN Ultrasound Conference FRIDAY, NOVEMBER 14, 2025 Virtual Course

For more information and to register: cpd.education.bcm.edu/content/2025-annual-ultrasound-course



# **COURSE DIRECTORS**



### Laura Detti, MD, FAIUM

Professor and Director Division of Reproductive Endocrinology and Infertility Department of Obstetrics and Gynecology Baylor College of Medicine



Joan Mastrobattista, MD, FAIUM

Division of Maternal Fetal Medicine Department of Obstetrics and Gynecology Baylor College of Medicine

#### **SPEAKERS**

## Gynecology

- Laura Detti, MD, FAIUM
- Sheila Hill, MD, FAIUM
- Francisco Orejuela, MD
- Laurel Stadtmauer, MD, PhD Vanessa Duran, RDMS

## **Obstetrics**

- Jane Burns, RDMS
- Cara Buskmiller, MD
- Sarah Detlefs, MD, MSMS
- Andrew Lane, MD
- Giancarlo Mari, MD, FAIUM
- Joan Mastrobattista, MD, FAIUM

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#### **ACCREDITATION/CREDIT STATEMENT**

Baylor College of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. Baylor College of Medicine designates this live activity for a maximum of 8.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### **NEEDS STATEMENT**

There is a recognized need for advanced education and hands-on training in ultrasound for obstetric and gynecologic care, particularly in fetal assessment, fertility evaluation, and pelvic pathology. This CME activity, the fourth organized by Baylor College of Medicine and Texas Children's Hospital, is designed for Sonographers, Physicians, Residents, Fellows, Nurses, and other OB-GYN ultrasound practitioners within the BCM-TCH System. The course offers lectures and hands-on sessions covering both basic and advanced imaging techniques. The 2024 ASRM gap analysis identified deficiencies in 3D ultrasound training, pre-fertility screening, and the diagnosis and management of uterine conditions such as adenomyosis, Müllerian anomalies, fibroids, and endometriosis. Addressing these gaps is essential to improving diagnostic accuracy and patient outcomes.

#### **TARGET AUDIENCE**

Sonographers, Attending Physicians, Residents, Fellows, Nurses, Nurse Practitioners

#### **EDUCATIONAL METHODS**

Lecture, Panel Discussion, and Case Study

#### **ACTIVITY EVALUATION**

Evaluation by questionnaire will address program content, presentation, and possible bias.

#### **OVERALL LEARNING OBJECTIVES**

At the conclusion of the conference, participants should be able to:

- Apply essential techniques to enhance ultrasound image acquisition and clarity in obstetric evaluations.
- · Differentiate causes and interpret sonographic findings associated with first-trimester bleeding.
- · Appraise the standardized ultrasonographic evaluation of the pelvic organs and accurate reporting.
- Explain the ultrasound evaluation of the fallopian tubes, tubal patency and ectopic pregnancy.

#### **Gynecology Session Learning Objectives**

This course will provide a fundamental understanding of ultrasound imaging and its clinical benefits in gynecology with specific emphasis on the role of 3D imaging and sonohysterography. The use of ultrasound for evaluation of ovarian reserve, follicle monitoring, adenomyosis, fibroids, endometriosis, uterine anomalies and early pregnancy will be reviewed.

Upon completion of this session, participants will be able to:

- · Appraise the standardized ultrasonographic evaluation of the pelvic organs and accurate reporting.
- · Understand the ultrasound evaluation of the fallopian tubes, tubal patency and ectopic pregnancy.
- Improve uterine cavity evaluation and plan for minimally invasive surgery and early pregnancy.
- Understand the diagnostic and prognostic capability of ultrasound for evaluating the pelvic floor.
- · Assess the value of ultrasound imaging for the diagnosis of endometriosis and deep infiltrating endometriosis

#### **Obstetrics Session Learning Objectives**

This course will explore essential techniques for enhancing ultrasound image quality, key first-trimester biometry and chorionicity identification in multiple gestations, comparative insights into genetic screening tests, and critical landmarks for cervical and fetal assessment. Additionally, it will cover the types and applications of Doppler screening in pregnancy, providing a comprehensive guide to optimizing practices in obstetric imaging.

Upon completion of this session, participants will be able to:

- Optimize Image Quality: Apply essential techniques to enhance ultrasound image acquisition and clarity in obstetric evaluations.
- Evaluate First-Trimester Bleeding: Differentiate causes and interpret sonographic findings associated with first-trimester bleeding.
- · Assess Cervical Length: Identify and utilize critical anatomical landmarks for accurate cervical length measurement.
- · Perform Anatomic Surveys: Conduct systematic first- and second-trimester fetal anatomical evaluations.
- Manage Third-Trimester Bleeding: Assess and interpret third-trimester vaginal bleeding, understanding common etiologies.
- Evaluate Monochorionic Twins: Recognize and manage unique diagnostic considerations in monochorionic twin pregnancies.
- Diagnose Fetal Growth Restriction (FGR): Identify types of FGR and apply appropriate ultrasound criteria for diagnosis and monitoring.
- Apply Doppler Ultrasound in Pregnancy: Understand the types, indications, and clinical applications of Doppler screening in obstetric care.

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# AGENDA Gynecology Sessions

8:00 - 8:10 AM	Course and Speaker Introduction	Laura Detti, MD
8:10 - 9:00 AM	Basic guidelines for an effective gynecological assessment with ultrasound and the role of 3D ultrasound of the pelvic organs	Sheila Hill, MD
9:00 - 9:25 AM	Sonohysterography in the evaluation of tubal patency and abnormal uterine bleeding in the reproductive-age woman	Laura Detti, MD
9:25 - 9:55 AM	The diagnosis of superficial and deep-infiltrating endometriosis: The role of transvaginal ultrasound	Laurel Stadtmauer, MD, PhD
9:55 - 10:05 AM	BREAK	
10:05 - 10:35 AM	Adenomyosis and fibroids: Distinct diagnoses, common consequences	Laurel Stadtmauer, MD, PhD
10:35 - 11:00 AM	Scanning for Answers: Ultrasound Clues to Normal and Abnormal Early Pregnancy	Laura Detti. MD
11:00 - 11:40 AM	Unseen threats: detecting ectopic pregnancy with ultrasound	Sheila Hill, MD
11:40 - 12:05 PM	Ultrasound as a first-line tool for the diagnosis of benign adnexal masses	Laura Detti, MD
12:05 – 12:30 PM	Dynamic insights: real-time ultrasound in pelvic floor diagnosis	Francisco Orejuela, MD
12:30 - 12:55 PM	Case Discussion	All Speakers

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# AGENDA Obstetric Sessions

12:55 – 1:00 PM	Afternoon speaker Introductions	Joan Mastrobattista, MD
1:00 - 1:25 PM	Knobology and image acquisition: How to improve images	Vanessa Duran, RDMS
1:25 - 1:50 PM	Evaluation of first trimester bleeding	Andrew Lane, MD
1:50 - 2:15 PM	Detailed first trimester ultrasound (DFTU)	Joan Mastrobattista, MD
2:15 - 2:40 PM	Cervical length - Sonographic landmarks	Jane Burns, RDMS
2:40 - 3:00 PM	Q&A and BREAK	All Speakers
3:00 – 3:30 PM	Practice parameter for performance of standard diagnostic obstetric ultrasound	Jane Burns, RDMS
3:30 - 4:00 PM	The bleeding edge: Etiologies in the late preterm period: Previa, accreta, abruption variations, risk factors & presentation	Joan Mastrobattista, MD
4:00 - 4:30 PM	Evaluation of monochorionic twin gestations	Cara Buskmiller, MD
4:30 - 5:00 PM	Fetal growth restriction (history) – Antepartum surveillance based on SMFM guideline	Sarah Detlefs, MD, MSMS
5:00 - 5:30 PM	Application of Doppler screening in pregnancy	Giancarlo Mari, MD
5:30 - 5:45 PM	Q&A and closing remarks	All Speakers