

European Thyroid Association

# **Thyroid Ultrasound Course – 2023**

Basic course in diagnostic thyroid  
ultrasound

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# Basic Ultrasound Course

SUMMARY	
Course opens	01/07/2023
Course closes	09/09/2023
Live course starts	09/09/2023 – 08:00 am
Live course ends	09/09/2023 – 13:00 pm
Venue	University of Milan Via Festa del Perdono 7 Milan, Italy
Website	URL
Target audience	Endocrinologists and other healthcare providers involved in the management of thyroid-related diseases
Attendees	50
Course certification	All participants who have successfully completed the course will receive a “ <i>Certificate of attendance</i> ” issued by the European Thyroid Association

## OVERVIEW

The Basic Ultrasound Course is aimed at providing a state-of-the-art of diagnostic neck ultrasound with lectures, interactive clinical case discussion sessions and hands-on ultrasound training sessions. It will focus on the use of ultrasound in diagnosing diffuse thyroid disorders, defining the risk of malignancy of thyroid nodules, examining cervical lymph nodes and identifying parathyroid adenomas. The course is specifically designed for beginners or those with limited experience in performing thyroid and neck ultrasonography. Real-time ultrasound examinations will be demonstrated through video clips and on patient volunteers.

## LEARNING OBJECTIVES

Upon completion of this educational activity, attendees will be able to:

- Recognize the normal anatomy of the neck
- Recognize the main ultrasound patterns associated with diffuse thyroid disorders
- Identify and measure thyroid nodules
- Recognize and describe the ultrasound characteristics of benign and malignant thyroid nodules
- Classify the risk of malignancy of thyroid nodules by applying a risk stratification system (i.e., EU-TIRADS) and select nodules for fine-needle aspiration biopsy
- Recognize and describe the ultrasound characteristics of benign and malignant cervical lymph nodes
- Recognize and describe the ultrasound characteristics of parathyroid adenomas

- Perform a diagnostic thyroid ultrasound examination and identify normal neck anatomy

## ACTIVITIES



### 1. Pre-course activities (*remote event*)

Two months before the live course starts, a pre-course e-learning activity will be proposed to participants. The web-site dedicated to this activity will be hosting slide based lectures the contents of the course. Shifting direct instruction before the live course activities will allow instructors to devote more time to integrate and apply attendees' knowledge during the live event. Time becomes available for attendees to engage more deeply with content, practice skills, and receive feedback

### Themes

- Normal head and neck ultrasound anatomy (*45 min*)
  - Discuss the anatomy of the neck and identify the important landmarks -  
Rose Ngu

- How to execute a thyroid ultrasound examination? Instruction for beginners - [Tamás Solymosi](#)
- Tips on ultrasound machine set-up - [Gilles Russ](#)
- Sonographic assessment of thyroid nodules (60-90 min)
  - Sub-module A (30-45 min):
    - Identify and measure thyroid nodules - [Steen J Bonnema](#)
    - Recognize ultrasound characteristics of benign and malignant nodules that have predictive value in deciding treatment - [Enrico Papini](#)
  - Sub-module B (30-45 min):
    - EU-TIRADS - [Gilles Russ](#)
    - Discuss the current guidelines for biopsy of nodules - [Cosimo Durante](#)
- Ultrasound of diffuse thyroid disorders/goiter (30 min)
  - Review ultrasound patterns seen in autoimmune thyroiditis, including pseudo-nodules - [Tamás Solymosi](#)
- Sonographic assessment of cervical lymph nodes (30 min)
  - Recognize ultrasound characteristics of benign and malignant lymph nodes (30 min) - [Camille Buffet](#)
- Sonographic assessment of parathyroid adenomas (30 min) - [Andrea Frasoldati](#)
  - Review the anatomical variations in the location of parathyroid glands
  - Recognize the ultrasound appearance and features of parathyroid adenomas
- Fine needle aspiration biopsy (60 min)
  - Sub-module A (30 min) - [Tamás Solymosi](#)
    - Discuss the variety of techniques of performing the procedure
    - Techniques to optimize fine-needle aspiration biopsy
    - Recognize the importance of good slide preparation techniques for cytological analysis and knowledge of liquid-based cytology and thyroglobulin assessment

*Sub-module B (30 min) - Fernando Schmitt*

- Classification systems
- Minimally invasive techniques (20 min) – Cosimo Durante, Enrico Papini
- Clinical cases (30 min) - Tamás Solymosi

## 2. Course activities (*live event*)

Live course activities will allow attendees to apply the knowledge they have acquired in the pre-course activities, by addressing clinical challenges. The setting should promote peer discussion, and feedback and direction from instructors. The course activities will include:

- **Kickoff event**

The kickoff event introduces the course goals and the agenda – C. Durante, L. Hegedüs

*Duration: 10 min*

- **Activity #1**

- A presenting author introducing clinical cases and asking questions – Cosimo Durante
- Audience televoting on questions
- Expert panels reacting to the answers – Andrea Frasoldati, Giovanni Mauri, Enrico Papini, Gilles Russ, Tamás Solymosi
- Take home messages – Cosimo Durante

*Duration: 80 min*

- **Activity #2**

- Clinical cases in small subgroups (n=10) with a tutor

- Then all subgroups join, and one member of each subgroup presents the case to the whole group

*Tutor:* Carla Colombo, Simone De Leo, Alessia Dolci, Andrea Frasoldati, Salvatore Gitto, Giovanni Mauri, Enrico Papini, Gilles Russ, Tamás Solymosi, Guia Vannucchi

*Duration:* 120 min

- **Hands-on sonography training**

Real-time ultrasound examinations will be performed on patient volunteers

*Tutor:* Carla Colombo, Simone De Leo, Alessia Dolci, Andrea Frasoldati, Salvatore Gitto, Giovanni Mauri, Enrico Papini, Gilles Russ, Tamás Solymosi, Guia Vannucchi

*Duration:* 90 min





## **FACULTY**

### ***Ultrasound Course Board***

C. Durante, L. Hegedüs, E. Papini, G. Russ, T. Solymosi

### ***Pre-course activities Faculty***

Steen J Bonnema, Camille Buffet, Cosimo Durante, Andrea Frasoldati, Rose Ngu, Enrico Papini, Gilles Russ, Fernando Schmitt, Tamás Solymosi.

### ***Course activities Faculty***

Carla Colombo, Simone De Leo, Alessia Dolci, Cosimo Durante, Andrea Frasoldati, Salvatore Gitto, Giovanni Mauri, Enrico Papini, Gilles Russ, Tamás Solymosi, Guia Vannucchi.