

**Organising
institution**

Università degli Studi di Padova
Dipartimento di Scienze Cardio-Toraco-Vascolari e Sanità Pubblica
Prof. Vida Vladimiro

**Partner
Institutions
Course Title
and
Description**

Hospital for Sick Children, University of Toronto (Canada)

The Host Course: Hands-On-Surgical-Training In Pediatric Cardiac Surgery

The Winter School we are proposing will include 1 week of theoretical-practical courses with high fidelity 3D reproductive models dedicated to doctors and surgeons and medical school students interested in paediatric and congenital heart disease. These courses will include lectures by local lecturers from the University of Padua, and the the virtual connection of international lecturers from the Hospital for Sick Children (Sickkids) in Toronto.

This online course will focus on congenital aortic arch injuries and on cardiac aortic arch reconstruction in paediatric cardiac surgery. Participants will receive five surgical simulation models. The initial lectures will focus on anatomy and morphology of the injuries directly on 3D models. After these introductory lectures and demonstration by the instructors, the participants will be able to practice the procedure. This will be followed directly by local instructors and via a webcam by international instructors. The instructors will monitor the participants by providing technical advice and answering any questions they may have.

Preliminary programme:

Day 1

- Introduction to the theoretical-practical course with 3D models
- Morphology of aortic arch lesions with 3D models
- Surgical principles of aortic arch reconstruction with 3D models

Day 2

- Introduction to an online hands-on course
- Evaluation of surgical efficacy through training on 3D models with aortic arch reconstruction

Day 3

- Live demonstration by local and international instructors: surgical correction of coarctation of the aorta
- Hands-on reproduction on 3D models of participants: aortic coarctectomy

Day 4

- Live demonstration by local and international instructors: surgical correction of aortic arch hypoplasia
- Hands-on demonstration on 3D models of participants: aortic arch reconstruction

Day 5

- Live demonstration by local and international instructors: Norwood operation
- Hands-on playback on participants' 3D models: Norwood operation, Case 1

Day 6

- Live demonstration by local and international instructors: Norwood operation
- Hands-on playback on participants' 3D models: Norwood operation, Case 2

Day 7

- Live demonstration by local and international instructors: surgical correction of aortic arch interruption
- Hands-on demonstration on 3D models of participants: aortic arch reconstruction in aortic arch interruption

Period	04/12/2021 – 11/12/2021
ETCS credits	N/A
Course fee	N/A
Course Level	Students training in cardiac surgery