

COURSE TYPE 3: ONLINE TEACHING COURSE „PARTICLE THERAPY” (EN, 35 TEACHING UNITS (TUs); 1 TU = 45 min.)

The *Online Teaching Course Particle Therapy* is dedicated to **national** and **international** colleagues (physicians, medical physics experts or physicist), young scientists and students who would like to get a deeper understanding of the physics of particle therapy and its clinical application. It comprises of 35 teaching units and is hosted in English. The **first online test** covers all topics of the online phase and can be done during two weeks. The **second online test** covers all topics of the Live Online Phase. Participation is mandatory. Participants will end up with a certificate of attendance, issued by the German Cancer Research Center (DKFZ), **which is not** relevant for the “Fachkunde Partikeltherapie” but it indicates all TUs of the course.

ONLINE PHASE OCT. 17 – NOV. 20, 2022

LIVE ONLINE PHASE NOV. 21 – NOV. 25, 2022

Physical basics of particle therapy (2 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Radiobiological basics of particle therapy (2 TU; EN)

Prof. Dr. Christian Karger, Heidelberg

Particle therapy facilities: beam production and delivery (2 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Dosimetry and QA (2 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Treatment Planning for Ion Beams I (2 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Current technical standards and experimental technologies in particle therapy, part 1 (1 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Incidents in particle therapy (1 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Introduction: clinical rationale for particles (1 TU; EN)

Prof. Dr. Dr. Jürgen Debus, Heidelberg

Clinical particle therapy: Liver & esophagus (1 TU; EN)

Dr. Semi Harrabi, Heidelberg

Clinical particle therapy: Pancreatic and rectal cancer (1 TU; EN)

Dr. Semi Harrabi, Heidelberg

Case presentation: medicine (1 TU; EN)

Dr. Semi Harrabi, Heidelberg

Case presentation: physics (1 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Introduction: IGRT for particle therapy: techniques (1 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Adv. dosimetry and QA for particle therapy (1 TU; EN)

Prof. Dr. Oliver Jäkel, Heidelberg

Advanced Radiobiology, part 1 (incl. tasks) (1 TU; EN)

Prof. Dr. Christian Karger, Heidelberg

MON. NOV. 21, 2022

3.30 – 4pm mandatory Online-ID Check

4 – 5.30pm

Advanced Radiobiology, part 2: task discussion (EN)

Prof. Dr. Christian Karger, Heidelberg

5.30 – 6pm Break

6 – 6.45pm

Adv. Organ Motion Management (EN)

Prof. Dr. Oliver Jäkel, Heidelberg

6.45 – 7.30pm

IGRT for particle therapy: clinical perspective (EN)

Dr. Semi Harrabi, Heidelberg

TUE. NOV. 22, 2022

4 – 5.30pm

Case discussion: medicine & physics (EN)

Prof. Dr. Oliver Jäkel & Dr. Semi Harrabi, Heidelberg

5.30 – 6pm Break

6 – 6.45pm

Current technical standards and experimental technologies in particle therapy, part 2 (EN)*

Prof. Dr. Oliver Jäkel, Heidelberg

6.45 – 7.30pm

Special aspects of stochastic radiation effects of neutrons in particle therapy (neutrons) (EN)*

Prof. Dr. Christian Karger, Heidelberg

WED. NOV. 23, 2022

4 – 5.30pm

Special clinical indications I: bronchial and mamma carcinoma, CNS and HNO tumors (EN)*

Dr. Semi Harrabi, Heidelberg

5.30 – 6pm Break

6 – 7.30pm

Treatment Planning for Ion Beams II: Hands-on Planning (EN)*

Dr. Niklas Wahl, DKFZ, Heidelberg

N.N., DKFZ, Heidelberg

FRI. NOV. 25, 2022

4 – 5.30pm

Special clinical indications II: skull base tumors, chordoma, chondrosarcoma, sarcoma, hip tumors, lymphoma & pediatric tumors (EN)*

Prof. Dr. Dr. Jürgen Debus, Heidelberg

5.30 – 6pm Break

6 – 7pm

Second online test about all topics of the Live Online Phase

Closing

Subject to changes!

Organizer:



Partners:

