

COURSE TYPE 2A: TEACHING COURSE PARTICLE THERAPY, INCLUDING SPECIALIZED COURSE for PHYSICIANS (EN & DE, 40 TEACHING UNITS (TU); 1 TU = 45 min.)

The *Teaching Course Particle Therapy* is an extended version of the *Specialized Course Particle Therapy for Physicians*¹. It is designed for physicians who would like to get a deeper understanding of particle therapy and its clinical application as well as those who would like to gain the "Fachkunde Partikeltherapie". The 24 teaching units (TUs) of the *Specialized Course Particle Therapy* relevant for the "Fachkunde Partikeltherapie" are marked with a *, the additional 16 TUs (not counted toward the "Fachkunde") are marked in light red. The abbreviations "EN" and "DE" indicate the teaching language. The **online test** of the online phase is in English. The **exam is in German** and covers all topics of the 24 TUs of the *Specialized Course Particle Therapy* (marked with *). Participants are expected to have good German language proficiencies to successfully pass the exam.

ONLINE PHASE OCT. 14, – NOV. 24, 2024 (21 TUs)		ONLINE SESSIONS ON ZOOM (7 TUs)	ATTENDANCE PHASE OR LIVE ONLINE PHASE ON ZOOM (12 TUs)	
Physical basics of particle therapy (2 TU; EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	Clinical particle therapy: Liver & esophagus (1 TU; EN) <i>Dr. Semi Harrabi, Heidelberg</i>	MON. NOV. 25, 2024 3.30 – 4pm Online-ID-Check 4 – 5.30pm Advanced Radiobiology, part 2: task discussion (EN) <i>Prof. Dr. Christian Karger, Heidelberg</i>	THU. NOV. 28, 2024 12 – 12.30pm On-site registration 12.30 – 2pm Special clinical indications I: bronchial and mamma carcinoma, CNS and HNO tumors (EN)* <i>Dr. Semi Harrabi, Heidelberg</i>	FRI. NOV. 29, 2024 8.30 – 10am Treatment Planning for Ion Beams II: Hands-on Planning (EN)* <i>Dr. Niklas Wahl, Heidelberg</i> <i>Dr. Amit Ben Anthony Bennan, Heidelberg</i>
Radiobiological basics of particle therapy (2 TU; EN)* <i>Prof. Dr. Christian Karger, Heidelberg</i>	Clinical particle therapy: Pancreatic and rectal cancer (1 TU; EN) <i>Dr. Semi Harrabi, Heidelberg</i>	5.30 – 6pm Break 6 – 7.30pm Case discussion: medicine & physics (EN) <i>Prof. Dr. Oliver Jäkel & Dr. Semi Harrabi, Heidelberg</i>	2 – 2.30pm Break 2.30 – 3.15pm Special aspects of stochastic radiation effects of neutrons in particle therapy (neutrons) (EN)* <i>Prof. Dr. Christian Karger, Heidelberg</i>	10.15 – 11am Current technical standards and experimental technologies in particle therapy, part 2 (EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>
Particle therapy facilities: beam production and delivery (2 TU; EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	Introduction: IGRT for particle therapy: techniques (1 TU; EN) <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	TUE. NOV. 26, 2024 4 – 4.45pm Adv. Organ Motion Management (EN) <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	3.15 – 4pm Baulicher und organisatorischer Strahlenschutz (DE)* <i>Dr. Stefan Scheloske, Heidelberg</i>	11 – 11.15am Break 11.15am – 12.45pm Special clinical indications II: skull base tumors, chordoma, chondrosarcoma, sarcoma, hip tumors, lymphoma & pediatric tumors (EN)* <i>Dr. Katharina Seidensaal, Heidelberg</i>
Dosimetry and QA (2 TU; EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	IGRT for particle therapy: clinical perspective (1 TU; EN) <i>Dr. Semi Harrabi, Heidelberg</i>	4.45 – 5pm Break 5 – 6.30pm Pro Contra FLASH (EN) <i>Prof. Dr. Oliver Jäkel, Heidelberg & Dr. Jeannette Jansen, Lausanne</i>	4 – 4.30pm Break 4.30 – 6pm Rechtliche Besonderheiten (DE)* <i>Carolin Edel, Regierungspräsidium Karlsruhe</i>	12.45 – 1pm Break 1 – 2pm Course review and exam (either online or on-site) about all topics marked with * (DE only!) <i>Dr. Katharina Seidensaal, Heidelberg</i>
Treatment Planning for Ion Beams I (2 TU; EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	Adv. dosimetry and QA for particle therapy (1 TU; EN) <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>			2 – ca. 3/3.30pm Guided tour at HIT (on-site, optional) <i>As of Feb. 14th 2024, subject to changes!</i>
Current technical standards and experimental technologies in particle therapy, part 1 (1 TU; EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	Advanced Radiobiology, part 1 (incl. tasks (1 TU; EN)) <i>Prof. Dr. Christian Karger, Heidelberg</i>			
Incidents in particle therapy (1 TU; EN)* <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>	Case presentation: medicine (0,5 TU; EN) <i>Dr. Semi Harrabi, Heidelberg</i>			
Introduction: clinical rationale for particles (1 TU; EN) <i>Prof. Dr. Dr. Jürgen Debus, Heidelberg</i>	Case presentation: physics (0,5 TU; EN) <i>Prof. Dr. Oliver Jäkel, Heidelberg</i>			
	Introduction: FLASH Radiotherapy with Particles, incl. task (1 TU; EN) <i>Dr. Jeannette Jansen, Lausanne</i>			

¹Der Kurs dient zum Erwerb der Fachkunde gemäß Ziffer 3 Anlage 1 des **Rundschreibens** des Bundesministeriums für Umwelt, Naturschutz, Bau und Reaktorsicherheit vom 18.06.2015, Az.: RS II 4 – 15174 und den Anforderungen der Richtlinie Strahlenschutz in der Medizin.

Venue of the attendance phase: see course website: www.dkfz.de/particle_course_en

Organizer:



Partners:

