

DAY 1: Monday October 27 - *Setting the Scene*

09.30-10.00	walk-in and coffee
10.00-10.30	start, welcome, get-to-know each other
10.30-11.15	Stable isotopes (Michiel Balvers)
11.15-12.00	Stable Isotope methods: general principles (Marco Mensink)
12.00	Lunch break
13.00-14.00	<u>Practical</u>
14.00-15.00	Analytical methods (Michiel Balvers)
15.00	Tea
15.30-17.00	<u>Lab visits</u> (tbc)
18.00	Course DINNER

DAY 2: Tuesday October 28 - *Deuterium-based methods to measure Body composition and Energy Metabolism*

09.00-09.15	recap/reflection Day 1
09.15-10.00	Total Body Water (TBW) to measure body composition (Marco Mensink)
10.00-10.30	Dose-to-mother technique (Marco Mensink or Paul Hulshof, tbc)
10.30	Coffee Break
11.00-12.30	Doubly-Labelled water (DLW) to measure energy expenditure: principles and protocols (Marco Mensink an/or Paul Hulshof, tbc)
	IAEA DLW and body composition databases (Cornelia Loechl)
12.30	Lunch break
13.30-14.30	<u>Practical</u> : DLW dose preparation
14.30	Tea
15.00-16.30	<u>Assignment</u> : DLW calculation (Marco Mensink and Paul Hulshof, tbc)

DAY 3: Wednesday October 29 - *Stable isotopes to measure micronutrients bioavailability and status*

09.00-09.15	recap/reflection Day 2
09.15-10.00	Iron/Zinc (Diego Moretti)
10.00-10.45	Vitamin A (Alida Melse)
10.45	Coffee Break
11.15-12.00	Stable Isotope methods in Nutrition Research: IAEA (Cornelia Loechl)
12.00-12.45	long-term isotope studies (Diego Moretti)
12.45	Lunch break
14.00-15.30	Stable Isotope Labelled Plant Products for the Life Sciences (Ries Visser, Isolife, tbc) excursion Isolife
15.30	Tea
16.00-17.00	<u>Case study</u> : meal/food preparation for isotope studies (Alida Melse & Diego Moretti)

DAY 4: Thursday October 30 - Protein Digestion and bioavailability: Stable isotopes methods

09.00-09.15	recap/reflection Day 3
09.15-09.45	Protein Digestibility: a -methodological- introduction (Marco Mensink)
9.45-10.30	A dual tracer approach to measure protein digestibility (Nikkie vd Wielen)
10.30	<i>Coffee Break</i>
11.00-11.30	Intrinsic labelling of protein sources (Marco Mensink)
11.30-12.30	Other (isotope) methods to measure protein digestibility/bioavailability (Nikkie vd Wielen)
	The need for a protein Quality database (Cornelia Loechl)
12.30	<i>Lunch break</i>
13.30-14.30	<u>Assignment</u> : calculating protein digestibility using a dual tracer approach (Nikkie vd Wielen / Fenna Hinssen)
14.30	<i>Tea</i>
15.00-16.00	<u>Practical</u>
	<i>Social activity (optional), tbd</i>

DAY 5: Friday October 31 - Application

09.00-09.15	recap/reflection Day 4
09.15-10.45	Pitches by participants
10.45	<i>Coffee Break</i>
11.00-12.00	Stable Isotope in Nutrition Research: Future Needs and Challenges (Cornelia Loechl)
12.00	Closing & Lunch