

<b>Self-studies on your own time</b>	<b>Video lectures</b>	Le1 Introduction	Le5 Metabolic networks and flux analysis	Le9 Energetics and enzymes	Le13 Measuring metabolites	Le17 Experimental considerations
		Le2 Material and energy budget	Le6 Isotope tracing	Le10 Respiration and oxygen	Le14 Fatty acids and sterols	Le18 Compartmentalization and Transport
		Le3 Oxidation and reduction	Le7 The TCA cycle	Le 11 Enzyme classes	Le15 Nucleotides	Le19 Genomics
		Le4 Carbohydrates	Le8 Cofactors and vitamins	Le12 Amino acids and nutrient starvation	Le16 One-carbon units and methylation	
	<b>Literature</b>	See homepage				

All sessions are at Wiedergrenska huset, Tomtebodavägen 18a

Room	Mon 20/9 Marie	Wed 22/9 Marie	Fri 24/9 Charles	Mon 27/9 John	Wed 29/9 John	Fri 1/10 John
13--14	Introduction to course, practical issues	Q & A Biomedical context	Q & A Biomedical context	Q & A Biomedical context	Q & A Biomedical context	Q & A Biomedical context
14--15	Databases and tools for navigating metabolism	Material and energy	TCA cycle Isotope tracing 1	Energetics and respiration	Fatty acids	Measuring metabolism
		Coffee break	Coffee break	Coffee break	Coffee break	
15--16		Redox metabolism	Flux balance analysis	Enzyme classes	Mass spectrometry and NMR	Compartments and transport
16--17		Carbohydrates		Amino acids Isotope tracing 2	Nucleotides and one-carbon units	Genomics

Seminar / Problem solving

Computer lab / exercise