



THE EUROPEAN  
SOCIETY FOR  
CLINICAL  
NUTRITION AND  
METABOLISM

## ESPE LLL Programme in Clinical Nutrition and Metabolism



### List of Topics and Modules 2016

Code	Title	Credits for Live course	Credits for on-line course	Credits for Grading Quiz	Authors
<b>Topic 0 Introduction in Nutrition</b>			1		
EDU T0 M0.1	Introduction to Clinical Nutrition		1		Pichard Claude Meier Rémy Regina Komsa
<b>Topic 1 Metabolism of Metabolism of Macronutrients, Pro - Pre biotics and Fibre</b>			5		
EDU T1 M1.1	Metabolism of Carbohydrates			1	H.P. Sauerwein
EDU T1 M1.2	Metabolism of Amino Acids and Proteins			1	Luc Cynober
EDU T1 M1.3	Metabolism of Lipids: New Insight			1	Regina Komsa-Penkova, Lubos Sobotka
EDU T1 M1.4	Pre-Probiotics in Nutrition			1	
EDU T1 M1.5	Fibre in Nutrition			1	
<b>Topic 2 Water, Electrolytes and Micronutrients</b>			5		
EDU T2 M2.1	Water and Electrolytes in Health and Disease			1	
EDU T2 M2.2	Metabolism of Vitamins			1	Alan Shenkin
EDU T2 M2.3	Metabolism of Minerals and Trace Elements			1	Alan Shenkin
EDU T2 M2.4	Antioxidants			1	Paola M Hunter Johane P Allard
EDU T2 M2.5	Phytochemicals			1	Hans Biesalski
EDU T2 M2.6	Fluid balance and metabolism in surgery				Dileep N Lobo
<b>Topic 3 Nutritional Assessment and Techniques</b>		3	4		
EDU T3 M3.1	Nutritional Screening Assessment (Adult)			1	Yitshal Berner Rémy Meier Lubos Sobotka
EDU T3 M3.2	Body Composition			1	Kristina Norman Yitshal Berner Rémy Meier Lubos Sobotka Nachum Vaisman
EDU T3 M3.3	Energy Balance			1	Lubos Sobotka Remy Meier

					Nachum Vaisman Yitshal Berner
<b>Topic 4 Nutrition in Paediatric Patients (1)</b>		3	5		
EDU T4 M4.1	Role of Diet in Prevention and Treatment of Hyperlipidaemia in Children			1	Corina Hartman
EDU T4 M4.2	Food allergy: prevention and treatment - Cow's milk allergy				Hania SZAJEWSKA
EDU T4 M4.3	Nutrition treatment in children with intestinal failure with the special emphasis on short bowel syndrome			1	Sanja Kolaček
EDU T4 M4.4	Principles of feeding the preterm infant			1	Koen Joosten
EDU T4 M4.5	Nutritional Evaluation of Hospitalized Children (Children)			1	Olivier Goulet
<b>Topic 5 Nutritional Requirements during Lifespan</b>			2		
EDU T5 M5.1	Dynamic of Nutritional Requirements during Lifespan			1	
EDU T5 M5.2	Nutritional Requirements in Pregnancy and Lactation			1	
<b>Topic 6 Malnutrition</b>			4		
EDU T6 M6.1	Undernutrition - Simple and Stress Starvation			1	Yitshal Berner Remy Meier Lubos Sobotka Nachum Vaisman
EDU T6 M6.2	Severe undernutrition: prevalence, mechanisms, consequences			1	Malgorzata Misiak Irena Kruczyk Kinga Szczepanek Stanislaw Klek
EDU T6 M6.3	Refeeding Syndrome and Methods for Safe Nutritional Intervention			1	Stanislaw Klek Kinga Szczepanek Malgorzata Misiak
EDU T6 M6.4	Epidemiology of Overnutrition			1	
<b>Topic 7 Enteral/Parenteral Nutrition - Substrates</b>			3		
EDU T7 M7.1	Substrates used for enteral nutrition: tube feeding			1	Aleksandra Kapala Ryszard Choruz Stanislaw Klek
EDU T7 M7.2	Substrates for Parenteral Nutrition			1	Stanislaw Klek
EDU T7 M7.3	Immunonutrition Substrates for Enteral and Parenteral Nutrition			1	Stanislaw Klek Tomasz Kowalczyk
<b>Topic 8 Approach to Oral and Enteral Nutrition (EN)</b>		3	5		
EDU T8 M8.1	Indications, Contraindications, Complications and Monitoring of EN			1	Matthias Pirlich
EDU T8 M8.2	Hospital Diet and Oral Nutritional Supplements (Sip Feeds)			1	Kalliopi-Anna Poulia Marian de van der Schueren
EDU T8 M8.3	Techniques of Enteral Nutrition			1	Zeljko Krznaric
EDU T8 M8.4	Formulae for Enteral Nutrition			1	Alastair Forbes Luzia Valentini

<b>Topic 9 Approach to Parenteral Nutrition</b>		<b>3</b>	<b>4</b>		
EDU T9 M9.1	Indications and Contraindications for Parenteral Nutrition			1	Zeljko Krznaric Federico Bozzetti
EDU T9 M9.2	Techniques of PN			1	André Van Gossum Asuncion Ballarin Viviane Lievin
EDU T9 M9.3	Compounding and ready-to-use preparation of PN: pharmaceutical aspects. Compatibility and stability consideration; drug admixing			1	Stefan Mühlebach
EDU T9 M9.4	Monitoring and Complications of PN			1	Alessandro Laviano Alessia Mari Serena Rianda
<b>Topic 10 Nutritional Support in Pediatric Patients (2)</b>		<b>3</b>	<b>4</b>		
EDU T10 M10.1	Nutrition in infancy and childhood and prevention of diseases			1	Hania SZAJEWSKA
EDU T10 M10.2	Enteral Nutrition in Pediatric Patients			1	Raanan Shamir
EDU T10 M10.3	Parenteral Nutrition in Pediatric Patients			1	Sanja Kolaček
EDU T10 M10.4	Principles of feeding in pediatric ICU			1	Koen Joosten
<b>Topic 11 Organization of Nutritional Care. Ethic and Legal Aspects</b>			<b>2</b>		
EDU T11 M11.1	Organisation of a Nutritional Support Team			1	S.M. ten Dam A. Droop W. Arjaans S.D.W. de Groot Marian van Bokhorst - de van der Schuere
EDU T11 M11.2	Ethical and Legal Aspects			1	
<b>Topic 12 Nutritional Support in Gastrointestinal Diseases</b>		<b>3</b>	<b>6</b>		
EDU T12 M12.1	Compromised Gut			1	Stanislaw Klek Peter B. Soeters
EDU T12 M12.2	Challenges in treating short bowel syndrome			1	Jon Shaffer Alastair Forbes
EDU T12 M12.3	Nutrition and Gastrointestinal Fistulas			1	Ruben Visschers Wim van Gemert Peter B Soeters Steven WM Olde Damink
EDU T12 M12.4	Nutrition in inflammatory bowel disease			1	Rémy Meier
<b>Topic 13 Nutritional Support in Liver Disease</b>		<b>3*</b>	<b>2</b>		

EDU T13 M13.1	Nutritional support in acute liver failure			1	Jens Kondrup
EDU T13 M13.2	Nutritional support in chronic liver disease			1	Mathias Plauth
<b>Topic 14 Nutritional Support in Pancreatic Disease</b>		<b>3*</b>	<b>2</b>		
EDU T14 M14.1	Nutrition in Acute Pancreatitis			1	Rémy Meier Stephen A. McClave
EDU T14 M14.2	Chronic Pancreatitis			1	Johann Ockenga
<b>Topic 15 Nutritional Support in Renal Diseases</b>		<b>3</b>	<b>4</b>		
EDU T15 M15.1	Acute Kidney Injury			1	Enrico Fiaccadori
EDU T15 M15.2	Nutritional Support in Chronic Kidney Disease			1	Denis Fouque
EDU T15 M15.3	Nutrition Support in Maintenance Haemodialysis (MHD) Patients			1	Cano Noël
EDU T15 M 15.4	Nutrition support in peritoneal dialysis patients			1	Daniel Teta
<b>Topic 16 Nutritional Support in Specific diseases</b>			<b>2</b>		
EDU T16 M16.1	Nutritional Support in Burns			1	Metter M. Berger Rene L. Chioloro
EDU T16 M16.2	Nutrition in Gravity and Bed Rest			1	
<b>Topic 17 Nutritional Support in the Perioperative Period</b>		<b>3</b>	<b>4+1</b>		
EDU T17 M17.1	Metabolic Responses to Surgical Stress			1	Olle Ljungqvist
EDU T17 M17.2	Nutritional Goals in the Perioperative Period			1	A. Weimann, MA
EDU T17 M17.3	Managing Surgical Stress: Principles of Enhanced Recovery and Effect on Outcomes			1	Kenneth C H Fearon
EDU T17 M17.4	Making the Gut work			1	Damian Bragg Simon P Allison Dileep N Lobo
<b>Topic 18 ICU Nutrition: Treatment and Problem Solving</b>		<b>3</b>	<b>4+4</b>		
EDU T18 M18.1	How to Maintain Homeostasis by Nutrition Care in the ICU			1	Michael. J. Hiesmayr
EDU T18 M18.2	More than Choosing the Route: Enteral and Parenteral Nutrition			1	Pierre Singer
EDU T18 M18.3	Repletion, Supplementation and Pharmaco-nutrition			1	Mette M. Berger Pierre Singer
EDU T18 M18.4	Clinical Priorities for Solving Complex ICU Patient Problems			1	Thomas W. Felbinger
<b>Topic 19 Nutritional Support outside the Hospital: Home Parenteral Nutrition (HPN) in Adult Patients</b>		<b>3</b>	<b>4</b>		

EDU T19 M19.1	Indications and Outcome			1	André Van Gossum
EDU T19 M19.2	Training and Monitoring Patients on HPN			1	Francisca Joly Michael Staun Loris Pironi Bernard Messing
EDU T19 M19.3	Venous Access and Line Complications			1	Michael Staun Francisca Joly André Van Gossum Loris Pironi
EDU T19 M19.4	Metabolic Complications of Home Parenteral Nutrition and Indications for Intestinal Transplantation in Chronic Intestinal Failure			1	Loris Pironi Francisca Joly Bernard Messing
<b>Topic 20 Nutrition and Prevention of Diseases</b>		<b>3</b>	<b>5</b>		
EDU T20 M20.1	The Place of Nutrition in the Prevention of Cardio-Vascular Diseases (CVDs)			1	Y. A. Carpentier R. S. Komsa-Penkova
EDU T20 M20.2	Nutrition in Prevention of Osteoporosis			1	Maurizio Muscaritoli
EDU T20 M20.3	Nutrition in the Prevention of Cancer			1	Maurizio Muscaritoli
EDU T20 M20.4	Nutrition in the Prevention of Neurological Diseases			1	Rosa Burgos Peláez
EDU T20 M20.5	Nutrition in the prevention and management of irritable bowel syndrome, constipation and diverticulosis			1	Eduard Cabré
EDU T20 M20.6	Moderate Alcohol and Cardiometabolic Risk in Type 2 Diabetes (T2D)				Iris Shai
<b>Topic 21 Consequences of Diabetes Mellitus on the Nutritional Status</b>		<b>3*</b>	<b>4</b>		
EDU T21 M21.1	Diabetes and Nutritional Status			1	Irit Chermesh
EDU T21 M21.2	Nutritional Support in Diabetes Type I and Type II			1	Lubos Sobotka
<b>Topic 22 Nutrition in Lipidemias</b>		<b>3*</b>	<b>2</b>		
EDU T22 M22.1	Clinical consequences of Dislipidemias			1	Miguel Leon Sanz
EDU T22 M22.2	Prescription of Artificial Nutrition in Patients with Dislipidemia			1	María D. Ballesteros-Pomar Miguel León Sanz
<b>Topic23 Nutrition in Obesity</b>		<b>3</b>	<b>4+1</b>		
EDU T23 M23.1	Nutrition in the Prevention of Obesity			1	Michael Chourdakis
EDU T23 M23.2	Non-surgical Interventions in Severely Obese Patients		1		Alon Lang
EDU T23 M23.3	Pre-operative Medical Assessment, Post-operative Follow-up and Clinical Outcome in Bariatric Surgical Patients			1	Anders Thorell
EDU T23 M23.4	The Obesity Paradox - BMI and Beyond			1	Irit Chermesh

<b>Topic 24 Nutritional Support in Metabolic Syndrome</b>		<b>3</b>	<b>4</b>		
EDU T24 M24.1	Diagnostic Criteria for Metabolic Syndrome			1	María Cristina Cuerda Compés
EDU T24 M24.2	Insulin Resistance: from Pathophysiology to Clinical Assessment			1	Rocco Barazzoni
EDU T24 M24.3	Lifestyle Interventions in Metabolic Syndrome			1	Miguel León-Sanz
EDU T24 M24.4	Drug Therapy beyond Lifestyle is it Cost Effective for Metabolic syndrome?			1	Joelle Singer María D. Ballesteros Pomar
<b>Topic 25 Nutritional Support in Neurological Diseases</b>		<b>3</b>	<b>4</b>		
EDU T25 M25.1	Nutritional and Metabolic Consequences of Neurological Diseases			1	Irene Bretón
EDU T25 M25.2	Nutritional Support In Acute Neurological Diseases (traumatic brain & spinal cord injuries)			1	Carole Ichai
EDU T25 M25.3	Nutritional Support in Strok			1	Stéphane M. Schneide
EDU T25 M25.4	Nutritional Support in Chronic Neurological Diseases			1	Rosa Burgos Peláez
<b>Topic 26 Nutritional Support in Cancer</b>		<b>3</b>	<b>4</b>		
EDU T26 M26.1	Mechanisms and Clinical Features of Cancer Cachexia			1	Paula Ravasco
EDU T26 M26.2	Nutritional Effects of Cancer Therapy and Potential Modulation of Tumour Growth			1	Alessandro Laviano
EDU T26 M26.3	Multimodal Therapy for Cancer Cachexia			1	Kenneth Fearon
EDU T26 M26.4	Pharmacologic Therapy			1	Jann Arends
<b>Topic 27 Nutritional Support in AIDS</b>			<b>1</b>		
EDU T27 M27.1	Principles of Nutritional Therapy in HIV/AIDS			1	J. Faintuch
<b>Topic 28 Nutrition in Allergic Diseases</b>			<b>1</b>		
EDU T28 M28.1	Nutrition and Food Allergy			1	
<b>Topic 29 Nutrition in Hereditary Diseases</b>			<b>4</b>		
EDU T29 M29.1	Nutrition in Phenylketonuria			1	
EDU T29 M29.2	Nutrition in Lactose Intolerance			1	
EDU T29 M29.3	Nutrition in Celiac Disease			1	
EDU T29 M29.4	Nutrition in the Cystic Fibrosis patients - impact and intervention			1	Gizel Diab Lea Bentur Drora Berkowitz Geila S. Rozen
<b>Topic 30 Nutrition in Rheumatological Diseases</b>		<b>3*</b>	<b>2</b>		

EDU T30 M30.1	Rheumatological Diseases			1	
<b>Topic 31 Nutrition in Behavioral Disorders</b>			<b>3</b>		
EDU T31 M31.1	Nutrition in Anorexia Nervosa			1	Alberto Miján-de-la-Torre Beatriz Mateo-de-Silleras Elvira Martin-de-la-Torre M Paz Redondo-del-Rio, Ana Pérez-García
EDU T31 M31.2	Nutrition in Bulemia			1	Núria Español-Armengol Alberto Miján-de-la-Torre
EDU T31 M31.3	Nutrition in Alcohol Abuse			1	
EDU T31 M31.4	Nutrition in Drug Abuse			1	
<b>Topic 32 Food Safety</b>			<b>1</b>		
EDU T32 M32.1	Food Safety. Exposure to Toxic Environment			1	Maya Stavreva Ed van Klink Iliana Buteva Nedka Trifonova
<b>Topic 33 Nutrition and Public Health</b>			<b>1</b>		
EDU T33 M33.1	Nutrition and Public Health			1	
<b>Topic 34 Nutrigenomics</b>			<b>2</b>		
EDU T34 M34.1	Nutrigenomics - New Research Approaches			1	Varban Ganev
EDU T34 M34.2	From Nutrients To Genes: Response to Nutrients			1	
<b>Topic 35 Economics of Nutrition</b>			<b>1</b>		
EDU T35 M35.1	Cost Benefit in Clinical Nutrition			1	Dan Waitzberg Yara Carnevalli
<b>Topic 36 Nutrition in Older Adults</b>		<b>3</b>	<b>4</b>		
EDU T36 M36.1	Epidemiology, Aetiology and Consequences of Malnutrition in Older Adults			1	Tommy Cederholm
EDU T36 M36.2	Nutritional Screening, Assessment and Diagnosis Dietary Advice and Oral Nutritional Supplements in Older Adults			1	Marian A.E. de van der Schueren
EDU T36 M36.3	Artificial Nutrition in Older Adults			1	Stéphane M. Schneider
EDU T36 M36.4	Age-Related sarcopenia			1	Juergen Bauer
<b>Topic 37 Nutrition and Sports</b>		<b>3</b>	<b>4</b>		
EDU T37 M37.1	Energy Balance Regulation: Effects of Exercise on ad libitum Food Intake			1	Katarina Melzer
EDU T37 M37.2	Nutrition for Endurance Sports			1	Anja Carlsohn

EDU T37 M37.3	Nutrition for Strength and Power Sports			1	Nada Rotovnik Kozjek Peter Soeters
EDU T37 M37.4	Physical Activity in Chronic Diseases			1	Laurence Genton
<b>Topic 38 Nutritional Support in Pulmonary Diseases</b>		<b>3</b>	<b>4</b>		
EDU T38 M38.1	Mechanisms and Consequences of Body Composition Abnormalities in Chronic Respiratory Diseases			1	Annemie Schols
EDU T38 M38.2	Issues Related to Obesity in COPD			1	Frits Franssen
EDU T38 M38.3	Diet and COPD			1	Frode Slinde
EDU T38 M 38.4	New Findings of Meta-analyses in Nutrition Interventions for COPD and Multimodal Approaches				Christophe Pison Noël J Cano
<b>Topic 39 Nutrition in Research and Education</b>			<b>1</b>		
EDU T39 M 39.1	Interactive skills in training in Clinical Nutrition				
EDU T39 M 39.2	Communicating the evidence in Clinical Nutrition				

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