# SEMINAR THREE Eight 75-minute sessions = 600 minutes total

### **SECTION 1- Carbohydrate Metabolism**

- Macronutrients and symptoms of deficiency
- Carbohydrate Intolerances: Lactose Gluten Sucrose Intolerance
- Functions of Carbohydrates
- Effect of Carbohydrate reduction in the diet
- The effect of soft drink consumption

## SESSION 2 - Major Minerals: Alkaline - Neutral - Acid

Dietary Sources – Effects of Deficiency – Effects of Toxicity

- Sodium Magnesium Potassium
- Calcium
- Phosphate Sulfur Chloride
- Bone Health and Table of Dietary Reference Intakes (DRIs)

#### SESSION 3 - Protein Metabolism

- Essential Protein and Amino Acids Facts
- Protein Daily Requirements Effect of Protein Deficiency
- Functions of Dietary and Plasma proteins
- Essential Protein Compounds: Insulin Thyroxine Hemoglobin Epinephrine - Dopamine and Serotonin

#### **SESSION 4 - Water-Soluble Vitamins:**

Dietary Sources – Effects of Deficiency – Effects of Toxicity

- Table of Dietary Reference Intakes (DRIs)
- The Stress Vitamins: Vitamin C and Vitamin B Complex
- Vitamin B1 Thiamine
   Vitamin B6 Pyridoxine
   Vitamin B7 Riotin
   Vitamin B7 Riotin
- Vitamin B2 Riboflavin Vitamin B7 Biotin
- Vitamin B3 Niacin Vitamin B9 Folate/Folic Acid
- Vitamin B5 Pantothenic Acid Vitamin B12 Cobalamin

# **SESSION 5 - Lipid Metabolism**

- Table of Dietary Reference Intakes (DRIs)
- Essential Lipid Facts
- Triglycerides Phospholipids Cholesterol
- HDL and LDL
- Metabolic Syndrome

#### **SESSION 6 - Fat-Soluble Vitamins**

- Dietary Sources Effects of Deficiency Effects of Toxicity
- Vitamins A D E K
- Table of Dietary Reference Intakes (DRIs)

#### **SESSION 7 - Trace Minerals**

Dietary Sources – Effects of Deficiency – Effects of Toxicity

• Iron - Iodine - Selenium - Zinc - Manganese - Copper - Molybdenum - Fluoride - Chromium and Table of Dietary Reference Intakes (DRIs)

#### SESSION 8 - Review