Nature Care College

Introduction to Nutrition

DESCRIPTION	This unit of study will enable you to develop an understanding of the basic concepts of established nutritional principles and practice and to overview current nutritional trends in order to identify basic individual dietary requirements and negotiate basic dietary change as appropriate to the individual.
DURATION	24 hours
LEARNING OUTCOMES	By the conclusion of the module, students should be able to: 1. Outline the functions of the essential nutrients 2. Discuss the beneficial and adverse properties of foods and other nutritional substances 3. Determine the basic dietary requirements for basic health 4. Assess macronutrient inadequacies in an individuals diet 5. Determine the influence of exogenous factors on nutritional status 6. Identify appropriate dietary modifications for the individual 7. Address appropriate cultural and lifestyle factors. 8. Design a daily eating plan based upon individual energy requirements 9. Identify dietary modifications to improve digestive function 10. Identify dietary modifications to improve blood sugar regulation 11. Design dietary modifications appropriate for weight loss 12. Design dietary modifications appropriate for cardiovascular health 13. Negotiate dietary change with the client
TEACHING METHOD	Lectures. Practical exercises. Class discussion.
ASSESSMENT	Assignment 100% **The pass mark for this assignment is 60%.** **NOTE:** Students are required to take a copy of their assignments before submitting. Please include a large self-addressed, stamped envelope for return of your assignment.
COMPETENCIES PARTIAL COMPLETION	Successful completion of this unit of study is in partial completion of the following Health Training Package HLT07 Units of Competency HLTAYV404C - Provide Ayurvedic advice on nutrition
ATTENDANCE	80% minimum.
PRE-REQUISITES	Nil
CO-REQUISITES	Nil.

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MATERIALS REQUIRED	Learning Guide, notebook, pen, access to computer.
TEXTBOOKS	**(a) Compulsory:** *Introduction to Nutrition Student Learning Guide,* 2012, Nature Care College. McGuire, M. & Beerman, K. A., 2011, *Nutritional sciences: From fundamentals to food.* (2nd ed.). Australia: Wadsworth Cengage Learning **(b) Recommended Reading / References:** Higdon J., 2007, *An evidence-based approach to dietary phytochemicals.* New York: Thieme. Kittler, P. & Sucher, K., 2008, *Food and culture.* (5th ed.) Australia: Thomson Wadsworth. Moore-Lappe F., 1991, *Diet for a small planet. 20th Anniversary Edition.* New York: Ballantine Books. Pitchford, P., 2002*, Healing with whole foods: Asian traditions and modern nutrition.* (3rd ed.) Berkeley, California: North Atlantic Books. Pollan, M., 2008, *In defence of food.* Victoria, Australia: Penguin Group. Ratnesar S., 2002, *The omega-3 life program.* Australia: McGraw Hill. Singer, P. & Mason, J., 2006, *The ethics of what we eat.* Melbourne, Australia: Text Publishing. Whitney, E., Rolfes, S., Crowe, T., Cameron-Smith, D. & Walsh, A., 2011, *Understanding nutrition: Australian and New Zealand edition*. Australia: Cengage Learning. **(c) Recommended Websites** American Journal of Clinical Nutrition: www.ajcn.org Choice: www.choice.com.au Diabetes Australia: www.diabetesaustralia.com.au FSANZ (Food Standards Australia and New Zealand): www.foodstandards.gov.au National Heart Foundation of Australia: www.heartfoundation.org.au NHMRC (National Health and Medical Research Council): www.nhmrc.gov.au US Department of Agriculture: www.usda.gov

WEEK-BY-WEEK OUTLINE

WEEK 1	Introduction to nutrition • What is nutrition? • Nutrients • Energy
WEEK 2	Australian dietary and nutrient guide and basic principles of chemistry • Australian nutrient, energy and dietary guidelines • Holistic nutrition philosophy • Basic principles of chemistry
WEEK 3	Digestion, absorption and assimilation of nutrients • The gastrointestinal tract • The digestive process • Nutrient transport around the body • Elimination of wastes • Common digestive problems • What are probiotics and prebiotics?
WEEK 4	Carbohydrates ▪ What are carbohydrates ? ▪ Simple carbohydrates ▪ Complex carbohydrates ▪ Dietary fibre ▪ Whole-grain foods
WEEK 5	Blood glucose regulation • The glycemic response • Hormonal regulation of blood glucose • Recommended carbohydrate intake • Diabetes and the metabolic syndrome
WEEK 6	Protein ▪ What are proteins? ▪ Essential and non-essential amino acids ▪ Assessing protein quality ▪ How the body makes proteins ▪ Protein digestion ▪ Functions of proteins and amino acids ▪ Protein turnover, urea excretion and nitrogen balance ▪ How much protein do we need? ▪ Protein deficiency ▪ Protein excess
WEEK 7	Lipids • What are lipids? • Essential fatty acids • Functions of triglycerides • Phospholipids • Sterols • Lipid digestion and absorption • Lipid transport • Lipid intake and health • Dietary recommendations for lipids

WEEK 8	Water and phytochemicals • Water - Introduction • Functions of water in the body • Dehydration • Recommended water intake • Water fluoridation • Water filters • Phytochemicals
WEEK 9	Vitamins, minerals and “super foods”. • Water-soluble vitamins • Fat-soluble vitamins • Minerals • “Super foods” • Chocolate
WEEK 10	Food production, processing and labelling • Food regulation in Australia • Food processing • Food labelling • Food additives • Conventional farming, industrialization and the environment • Organic farming • Genetically modified foods
WEEK 11	Vegetarian, therapeutic and popular diets and weight management • Vegetarian and vegan diets • Weight management • Nutrition and cardiovascular health **Assignment Due**
WEEK 12	Cultural influences on health and nutritional assessment • Cultural influences on health • Indigenous Australians • Food and religion • The nutritional assessment process • How can you easily assess and plan your diet? • Application of the nutritional assessment concepts • Conclusion

Please be respectful of your fellow students and arrive on time for classes. Please ensure all mobile phones are turned off prior to the commencement of class.