



برنامج نظم التغذية
Dietetic Program



Level 2

Third - Term



برنامج نظم التغذية Dietetic Program



Course	General Microbiology and immunology
Code Number	Pha201
Credit Hours	3
Prerequisite Course	-
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Understanding the basic features of general bacteriology, virology and mycology.
- 2- An appropriate background covering the immune system, its protective functions and its role in the patho-physiology of infectious and non-infectious diseases.
- 3- Knowledge of the common infections and diseases of medical importance, their microbial causes, as well as laboratory diagnosis, treatment, prevention and control of such diseases
- 4- Principles of sterilization and infection control

2) Scientific Contents

Medical bacteriology, medical virology, medical mycology, immunology, Applied microbiology.

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

- 1- Caroll, K.C., Butel, J. S. and Morse, S.A. (2015) Medical Microbiology. Lange. 864 pages.
- 2- Abbas, A.K., Lichtman, A.H. and Pillai, S. (2016). Basic immunology: Functions and disorders of the immune system. Elsevier. 530 pages.



برنامج نظم التغذية Dietetic Program



Course	Nutrition through the Life Cycle (1)
Code Number	Fdt202
Credit Hours	2
Prerequisite Course	Fdt101
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Understanding the role of nutrition and changes in nutritional requirements that occur during the life cycle in humans.
- 2- Understanding how and why nutrient needs change during each stage of the life cycle. Identification major areas of nutritional concern in each stage of the life cycle, including the impact of physiological and developmental changes.
- 3- Identification of nutritional risk factors that may lead to chronic disease through case studies of various stages of the life cycle.
- 4- Knowledge of nutritional requirements for each age group to their dietary needs and food choices.

2) Scientific Contents

Introduction/ review nutrition basic concepts, overview of the lifecycle, preconception nutrition, nutrition during pregnancy, nutrition during lactation, infant nutrition, toddler/ preschool nutrition, child nutrition.

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

- 1- Brown,J.E., Isaacs,J., Krink,B., Lechtenberg, E. and Murtaugh, M. (2013). Nutrition through the Life ycle.Wadsworth Publishing. 624 pages.



برنامج نظم التغذية Dietetic Program



Course	Natural products chemistry
Code Number	Pha202
Credit Hours	3
Prerequisite Course	
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Basics of natural organic compounds
- 2- Extraction and isolation of natural organic
- 3- Structural identification of natural organic reactions
- 4- Characterization of natural organic compounds
- 5- Application of natural organic compounds for nutrition

2) Scientific Contents

An Introduction to Secondary Metabolism, Volatile oils, Alkaloids, Biological activity of carbohydrates, glycoside, Fruit, Vegetables, and Phytochemicals in Human Health and Disease, Anthocyanins and Heart Disease.

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

- 1- Xu, R., Ye, Y. and Zhao, W. (2011). Introduction to Natural Products Chemistry. CRC Press. 381 pages.



برنامج نظم التغذية Dietetic Program



Course	.Food chemistry
Code Number	Fdt 203
Credit Hours	3
Prerequisite Course	-
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Chemical/biochemical reactions of carbohydrates, lipids, protein and other constituents in fresh and processed foods with respect to food quality.
- 2- Reaction conditions and processes that affect flavor, nutrition, texture, and safety of food
- 3- Solutions for many problems associated with the food industry
- 4- Activation and control of enzymatic reactions in fruits and vegetables.
- 5- Consequences of water migration on food quality.
- 6- Gelatinization-retrogradation in starch-based foods.
- 7- Initiation and control of non-enzymatic browning.

2) Scientific Contents

Food components and quality, chemical composition and structure of foods, carbohydrates in food, proteins in food, lipids in food, food colorants, mineral components ,Aroma compounds, Vitamins, Minerals, Milk and dairy products, Eggs, meat, Fish, whales, Crustaceans, Mollusks, Edible fat and oils, Cereals and cereal products, Legumes, Vegetables and vegetable products, Fruits and fruit products, Sugars, Sugar alcohols and honey, Beverages, Coffee, tea, Cocoa, Spices, salt and vinegar, Pickles, Drinking water, Mineral ant table water, mutagenic, carcinogenic and chemopreventive compounds in foods, enzymatic and non-enzymatic food browning,

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

- 1- Belitz, H.-D., Werner, G. and Peter, S. (2009). Food chemistry. Springer. 339 pages.



برنامج نظم التغذية Dietetic Program



Course	Pathology
Code Number	Md208
Credit Hours	3
Prerequisite Course	-
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Knowledge of essential for the mastery of practice of pathology according to the international standards.
- 2- Skills necessary for diagnosis of submitted tissue specimens.
- 3- Basic disease patterns including definition, etiology, morphologic changes in different organ system diseases in addition to their fate and complication
- 4- Knowledge for gross and microscopic changes in different diseases for understanding and interpreting pathological reports.
- 5- Ethical principles related to handling tissue specimens of the patients.

2) Scientific Contents

Inflammation, disturbance in circulation, disturbance in metabolism, disturbance in cell growth, necrosis, gangrenes and PM changes, pathology of digestive, respiratory, cardiovascular, urinary, nervous and hoemopoietic system.

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

- 1- Robbins and Cotran (2006). Pathologic Basis of Disease. Vinay Kumar. 670 pages.



برنامج نظم التغذية Dietetic Program



Course	Food processing
Code Number	Fdt204
Credit Hours	2
Prerequisite Course	-
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Knowledge of essential Food processing technology.
- 2- Explaining the general role of food additives in meat, vegetable and dairy products.
- 3- Biochemical dynamic and quality of fresh and frozen food.
- 4- Chemical composition and sensory evaluation of fresh and processed food.

2) Scientific Contents

Principles of meat processing Technology, Heat treatment of meat products, Categories of processed meat products, Fresh processed meat products, Raw-fermented sausages, Raw-cooked meat products, Biochemical dynamics and quality of fresh and frozen fish, Surimi and fish mince products, chilling and freezing of fish, canning fish and fish products. principles of dairy products processing technology, fermented milk, processed cheese, soft cheese, hard cheese, Ice cream, cream, butter, Ghee, Basics of vegetable and fruits processing technology, Beverages, Pickles, Baked, Sugar and sweets.

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

Singh, V.P. (2011). Principles of meat technology. New India publishing Agency. 310 pages.

Hall, G.M. (1997). Fish processing technology. Springer. 392 pages.

Board, N. (2013). Modern technology of milk processing & dairy products. Niir project consultancy services, 340 pages.

Goldstein, D. (2015). Sugar and sweets. The oxford companion. 200 pages.



برنامج نظم التغذية Dietetic Program



Course	Milk and dairy products in Human nutrition
Code Number	Dar201
Credit Hours	2
Prerequisite Course	-
Course status	Compulsory course

1) General instructional objectives (GIO)

Students should have acquired the

- 1- Knowledge of milk and dairy products composition.
- 2- Knowledge of milk and dairy programmes affecting nutrition
- 3- Effect of dairy components on human health
- 4- Effect of milk and dairy products on linear growth in undernourished or socio-economically underprivileged children products.

2) Scientific Contents

Milk and dairy products composition, the role of milk as a source of macro-and micronutrients, composition of milks consumed by humans, Factors affecting milk composition, Nutritional value of milk from various species, Dietary dairy in growth and development, Dietary dairy and bone health, dietary dairy and oral health, Dairy intake, weight gain and obesity development, Dairy intake, metabolic syndrome and type 2 diabetes, Dairy intake and cardiovascular disease, Dairy intake and cancer, Milk hypersensitivity, Dairy components, products and human health.

3) Teaching and learning methods

- 1- Lectures
- 2- Practical lessons
- 3- Self learning
- 4- Cooperative learning
- 5- Case studies
- 6- Office hours (tutorial)

4) – Student Assessment Methods

- 1- Written examination
- 2- Practical examination
- 3- Mid – Term
- 4- Sheet examination
- 5- Oral examination

5) References

- 1- Muehlhoff, E., Bennett, A. and McMahon, D. (2013). Milk and dairy products in human nutrition. Food and Agriculture organization of the United Nations. 376 pages.