

AGI4559 Food and Nutrition

Level	4
Course Code	AGI4559
Course Title	Food and Nutrition
Credit value	5
Core/Optional	Core (Agriculture)
	*Practical/Design/Field work/case study
Course Aim/s	To provide knowledge of food nutrients, digestion, absorption and diet planning in relation to human health.
Course Learning Outcomes (CLOs):	<p>At the end of the course the students should be able to;</p> <p>CLO1: Name major food nutrient of a given food. [PLO1, PLO2, PLO6] CLO2: Describe physical and chemical properties of food nutrients [PLO1, PLO3, PLO6] CLO3: Identify and confirm food nutrients of a given food product using qualitative tests.[PLO1, PLO2] CLO4: Discuss the role of food digestion and absorption [PLO1] CLO5: Discuss the importance of food as an energy source for day to day life [PLO1] CLO6: Discuss how foods effect on our good health and ill health CLO7: Evaluate how food sustainability effect on economic development of a country</p>
Content (Main topics, sub topics)	<p>Outline syllabus:</p> <p>Unit 1: Food nutrients Session 1: Introduction to food and nutrition Session 2: Carbohydrates I Session 3: Carbohydrates II Session 4: Qualitative test for the identification of carbohydrates Session 5: Proteins Session 6: Qualitative test for the identification of proteins Session 7: Lipids Session 8: Qualitative test for the identification of lipids Session 9: Vitamins I Session 10: Vitamins II Session 11: Mineral elements I Session 12: Mineral elements II</p> <p>Unit 2: Fate of ingested aliments Session 13: Human alimentary canal Session 14: Food digestion I Session 15: Food digestion II Session 16: Food absorption I Session 17: Food absorption II Session 18: Food transport in human body Session 19: Fuel for Energy</p> <p>Unit 3: Effect of diet and nutrients on health Session 20: Nutrition and diet planning Session 21: Nutritional disorders Session 22: Food additives I Session 23: Food additives II</p>

	<p>Session 24: Introduction to functional foods and bioactive compounds Session 25: Functional foods -grains , legumes , fermented foods and fruits Session 26: Functional foods for Chronic Diseases</p> <p>Unit 4: Food and poverty</p> <p>Session 27: Food and poverty Session 28: Sustainable food system Session 29: Food systems planning Session 30: Human nutrition and economic development</p> <p>Laboratory Work: Yes</p> <ol style="list-style-type: none">1. Identification of major nutrients of food:<ol style="list-style-type: none">i. -carbohydrates (Fehling's test, Osazone test and Iodine test)ii. -proteins (Biurette and Xanthoprotein test)iii. -lipids (specific gravity and Titratable acid value)2. Identify different food additives in processed food (preservatives, food colorants, anti-oxidants, bulking agents, pre-biotics, pro-biotics)
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