

Program	Diploma in Food Science					
Semester and Level	Level 3					
Course Code	ADD3200					
Course Title	Basic Mathematics and Statistics for Food Science					
Credit value	2					
Core/Optional	Core					
Prerequisites	None					
Hourly Breakdown	Theory		Practical Hours	Independent Learning	Assessments	Total hrs
	16 Sessions X 2hrs = 32 hrs	2DS +1RDS X 4 hrs = 12 hrs	▪ Hands on experience in Excel = 08 hrs	▪ Sessions (16 x 3hrs) = 48 hrs ▪ Home assignment (optional)	▪ 2 Continuous Assessments (CA) X 1.5 hrs =3 hrs	103
Course Aim/s	Aim of this course is to provide the knowledge in basic mathematics and basic statistics related to food science and its applications.					
Programme Learning Outcomes (PLO) addressed by course	<p>PLO1: Demonstrate knowledge and understanding of basic concepts and principles in Food Science and core subject areas, Chemistry and Biology</p> <p>PLO3: Communicate results of studies, information, ideas and issues in food science efficiently and effectively.</p> <p>PLO4: Exercise the ability to work in a team as a member or a leader while taking personal responsibility.</p> <p>PLO5: Demonstrate the ability to analyze and interpret data, and make judgments in accordance with basic theories and concepts in food science</p> <p>PLO6: Demonstrate the ability to gather, analyze, convey and present information, related to food science</p>					
Course Learning Outcomes (CLO):	<p>At the completion of this course student will be able to</p> <p>CLO1: Interpret data represented in different forms.(PLO1,PLO3,PLO6)</p> <p>CLO2: Carryout simple calculations using standard mathematical operations including those involving logarithms. (PLO1,PLO5)</p> <p>CLO3: Calculate basic statistical parameters related to a given set of data from food science. (PLO5, PLO6)</p> <p>CLO4: Demonstrate the ability to use some standard software packages widely used in data analysis. (PLO4, PLO6)</p>					

Content (Main topics, sub topics)	<p>Unit 1: Basic Mathematics Numbers, expressing numbers through scientific notation, graphs and interpretation of graphs, ratios, percentages, fractions, roots, exponents, exponential and logarithms</p> <p>Unit 2: Descriptive data analysis Basic concepts of statistics, types of variables, types of data, tabular data summaries, graphical data summaries, numerical data summaries, selecting data summaries in a given context, constructing data summaries using Excel software</p>	
Teaching-Learning methods	<p>a) Course material in print – 16 sessions; and e - learn supplementary course</p> <p>b) Self-learning/independent learning</p> <ul style="list-style-type: none"> ▪ Learning the course material (print, online) ▪ Additional reading materials/ recommended reading ▪ Home Assignment <p>c) Non-compulsory contact sessions</p> <ul style="list-style-type: none"> ▪ Day schools (discussion classes) <p>d) Continuous assessment (CA): NBT1, NBT2,</p> <p>e) Final examination : 01 theory paper</p>	
Assessment Strategy	Overall Continuous Assessment Mark (OCAM): 40%	Final Assessment: 60 %
	OCAM = 60% NBT1 + 40% NBT2	Details: Final examination – 2hrs 01 paper (structured essay)
Recommended Reading	<ol style="list-style-type: none"> 1. Pre-calculus with limits – a graphing approach by Ron Larson, 7th edition 2. Basic Statistics by Agarwal. B. L., 2015, 6th edition 3. Microsoft Office Excel by Frye, Curtis D. 	