COURSE CONTENT

Date: January 14th 2013

Academic Year: 2012/13

Study Year (if applicable): N/A

Course Code & Title: CM9102 Food Analysis

Academic Units: 3 AU

Pre-requisites: CM1051 and (CM1031 or CM9001) or (CBC113 and CBC121) or by permission

Course Description

CM9102 Food Analysis
[Lectures 26; Tutorial 5; Laboratory 15; pre-requisite CM1051 and CM1031 or CM9001 or CBC113 and CBC121 or by permission; academic units 3]

Content
Principles, methods and techniques of qualitative and quantitative physical, chemical and biological analyses of food, food ingredients, food additives and food contaminants.

Course Outline

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<th>S/N</th>
<th>Topic</th>
<th>Lecture hours</th>
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<td>1</td>
<td>Introduction to Food Analysis: Nutrition Labelling and Regulations, Sample Preparation and Evaluation of Analytical Data</td>
<td>4</td>
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<tr>
<td>2</td>
<td>Review of Principal Techniques for Food Analysis: Spectroscopy and Chromatography</td>
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<td>3</td>
<td>Compositional Analysis of Food: Protein, Fat, Carbohydrate, Moisture, Vitamin and Mineral Analysis</td>
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<tr>
<td>4</td>
<td>Analysis of Food Contaminants</td>
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<td>5</td>
<td>Physical Properties of Foods: Rheological Principles, Thermal and Colour Analysis</td>
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Objective
To outline the principle methods for determining the quantities of the principle food components present; to determine the presence of additives and contaminants.

Learning Outcomes
Students will understand how to analyse foodstuffs to determine the content of the principle food components, as well as additives and contaminants. They will be able to suggest that best methods for sample preparation and be able to estimate errors and identify likely sources of error. They have will have a basic knowledge of the methods to assess microbiological contamination. Laboratory work will give them practical skills in the subject.

Student Assessment
Students will be assessed by
a. a final 2-hour written examination (50%)
b. continuous assessment (to include written laboratory reports) (50%)