

MODULE DOCUMENTATION

Food Product Development - Concepts and Techniques

HOSP08031

Mandatory

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HOSP08031 Food Product Development -Concepts and Techniques

Full Title	Food Product Development -Concepts and Techniques		
Status	Uploaded to Banner	Start Term	2017
NFQ Level	08	ECTS Credits	10
Module Code	HOSP08031	Duration	Semester - (13 Weeks)
Grading Mode		Department	Culinary Arts
Module Author	Anne OLeary		

Module Description

This module builds on the knowledge gained in earlier science, culinary arts and business modules. This module is an interdisciplinary module emphasising the analysis of complex food product development concepts and theories. This module provides graduates with an opportunity to develop innovative food product concepts for an ever evolving market place.

Learning Outcomes	
	<i>On completion of this module the learner will/should be able to:</i>
1.	Critically evaluate the role of product development to the food sector.
2.	Appraise the inter-relationship between science and technology, marketing and financial control underpinning the stages involved in food product development.
3.	Appraise food trend data from a variety of sources to identify potential market opportunities.
4.	Evaluate and apply the stages involved in implementing and managing a food product development process.
5.	Identify and apply the key elements and procedures associated with shelf life testing, and analyse the implications of the results achieved.
6.	Experience group decision making, team roles, and cross functional co-operation.
7.	Write present and defend material that articulates ideas, insights and analysis, individually and as part of a team.

Indicative Syllabus

1. **Concept and Role of Product Development**
 - 1.1 Reasons for product development
 - 1.2 Commercial success of new products
 - 1.3 Product life-cycle and pricing strategies for new products
 - 1.4 Stages in the development process
2. **Identifying Market opportunitites**
 - 2.1 Social and demographic changes
 - 2.2 Consumer and Food Trends
 - 2.3 Gap Analysis
3. **Managing Food Product development techniques**
 - 3.1 Recipe Formulation
 - 3.2 Determination of Date of minimum Durability

- 3.2.1 Compliance with Current EU and Irish shelf life determination legislation
- 3.2.2 Microbiological testing
- 3.3 Packaging design and functionality and labelling
 - 3.3.1 Compliance with Current EU labelling legislation
 - 3.3.2 Brand formation
 - 3.3.3 Nutritional Analysis
- 3.4 Consumer Acceptance Testing

Teaching and Learning Strategy

Working in groups and as individuals students will simulate the multidisciplinary nature of food product development to evaluate existing products and to create innovative food concepts.

The module will consist of lecture and practical lab and kitchen session and guest speakers.

Industry site visits and trade fairs will also be an integral part of the module.

Assessment Strategy

There are two forms of assessment utilised in this module, namely a terminal written exam which is assessed out of 30% and two applied projects which is assessed out of 70%. The choice of projects allows the students to apply their knowledge to real life scenarios.

Project one requires a gap analysis of a designated food category. It is assessed out of 20%. The second project outlines the development of a new food concept. Students work in groups. A showcase event is central to this project. Students are required to present their product to industry and academic staff. This project is assessed out of 50%. Other modules such as visual design, business plan, support the showcase event due to the development of financial accounts and poster presentations and packaging mock ups.

Repeat Assessment Strategies

Repeat written exam at next available sitting

Re-submission of projects

Indicative Coursework and Continuous Assessment:		70 %		
Form	Title	Percent	Week (Indicative)	Learning Outcomes
Assessment	Class Assessment	70 %	OnGoing	2,3,4,5,6,7

End of Semester / Year Formal Exam:		30 %		
Form	Title	Percent	Week (Indicative)	Learning Outcomes
Closed Book Exam	Final Exam	30 %	OnGoing	1,3,5

Full Time Delivery Mode Average Weekly Workload:			4.00 Hours		
Type	Description	Location	Hours	Frequency	Weekly Avg
Lecture	Lecture	Lecture Theatre	1	Weekly	1.00
Practical	Food Laboratory	Laboratory	1	Weekly	1.00
Practical	Kitchen Practical	Kitchen	2	Weekly	2.00

Recommended Reading Book List

Brody, L., (2001). <i>Active Packaging for Food Applications</i> . CRC Press. ISBN 1587160455 ISBN-13 9781587160455
Fuller, W., (2004). <i>New Food Product Development: From Concept to Marketplace, Second Edition (CRC Series in Contemporary Food Science)</i> . CRC Press. ISBN 0849316731 ISBN-13 9780849316739
Moskowitz, R., (2009). <i>Packaging Research in Food Product Design and Development</i> . Wiley-Blackwell. ISBN 0813812224 ISBN-13 9780813812229
Robertson, L., (2005). <i>Food Packaging: Principles and Practice, Second Edition (Food Science and Technology (CRC Press))</i> . CRC Press. ISBN 0849337755 ISBN-13 9780849337758
Shewfelt, L., (2009). <i>Introducing Food Science</i> . CRC Press. ISBN 1587160285 ISBN-13 9781587160288
Va, A., <i>Consumer Sensory Testing For Product Development (Chapman & Hall Food Science Book)</i> . Springer. ISBN 0834212099 ISBN-13 9780834212091
Meilgaard, C., (2006). <i>Sensory Evaluation Techniques, Fourth Edition</i> . CRC Press. ISBN 0849338395 ISBN-13 9780849338397
(2007). <i>Developing New Food Products for a Changing Marketplace, Second Edition</i> . CRC Press. ISBN 0849328330 ISBN-13 9780849328336
(2007). <i>Consumer-Led Food Product Development (Woodhead Publishing Series in Food Science, Technology and Nutrition)</i> . Woodhead Publishing. ISBN 1845690729 ISBN-13 9781845690724

Literary Resources

Commission Regulation (EC) No 2073/2005 on microbiological criteria for food stuffs
 Commission Regulation (EC) No 1169/2011 on Provision of Food Information to Consumers
 Commission Regulation (EC) No 178/2002 on General Principles of food law, establishing the European Food Safety Authority, and laying down procedures in matters of food safety.

Dept. of Agriculture and Food., *Market led New Product development in the Food and Drink Industry*, Food Agency Co-op Council, 2003

FSAI, Guidance Note 10, *Product Recall and Traceability*, amended September 2013

FSAI, Guidance note 18, *Validation of Product Shelf life, Revision 1* amended October 2011

FSAI, Guidance note 20, *Industrial processing of Heat -Chill Foods*, amended September 2006

FSAI, Guidance note 26, Guidance for food business operators on the implementation of Commission Regulation (EC) No 2073/2005 on Microbiological Criteria for Foodstuffs, as amended November 2011

Health Protection Agency, (2009) Guidelines for Assessing the Microbiological Safety of Ready to eat foods placed on the market. HPA, London.

Potter, N. & Hotchkiss, J H., *Food Science*, Chapman & Hall, 5th Edition: 1995

Sprenger, R.A. (2014) *Hygiene for Mangement*, 17 Ed., Highfield Publications, London

Note the most recently published text will apply

Other Resources

None

Additional Information

None

Programme Membership

GA_OFIEG_H08 201800 Bachelor of Business (Honours) in Food Innovation and Enterprise
 GA_OCGSG_H08 202000 Bachelor of Arts (Honours) in Culinary and Gastronomic Sciences