

Course Syllabus

Τίτλος (Ελλ.)	Τίτλος (Αγγλ.)	Υπεύθυνος	Διδάσκοντες
Ιχνηλασιμότητα και Διαχείριση Εφοδιαστικής Αλυσίδας	Traceability and Supply Chain Management.	ΞΑΝΘΟΠΟΥΛΟΣ	
Course			
<p>This course are presented the fundamentals principles of retailing logistics in fresh food supply chains and the associated traceability systems highlighting the role of traceability systems ensuring food safety and optimising business performance. Following, are analysed techniques of building traceability systems, including modelling and the process information and tracing analytical measurements. Finally are presented modern traceability technologies such as DNA markers, electronic tagging of farm animals, storing and transmitting traceability data techniques and different data carrier technologies such as barcoding, EAN.UCC numbering system, RFID, EPC.</p>			
Learning objectives			
<p>This course will be focused on scientific achievement, acquisition of knowledge and enhancement of comprehension of information regarding food supply chain in fresh food industry and the essential traceability systems for fresh food tracking and tracing.</p> <p>The master degree students completing this course will be able to:</p> <ul style="list-style-type: none"> - Comprehend the way that fresh food retailing supply chains and traceability systems are structured. - Have a good knowledge of traceability legislation - Detail the traceability requirements of Regulation 178/2002 for all foods and those for specific foods - Able to build or/and adjust a traceability system - Show how product identification and management of information facilitates traceability 			

Week	Course Contents
1 ST	Introduction in fresh food retailing and logistics (Xanthopoulos)
2 ND	Fundamentals of food traceability systems (Xanthopoulos)
3 RD	Retail leadership in fresh food channels (Xanthopoulos)
4 TH	Fresh food retail logistics (Xanthopoulos)
5 TH	History of food traceability – traceability laws in EU (Xanthopoulos, ?)
6 TH	Developing traceability systems across the food supply chain: an overview (Xanthopoulos, ?)
7 TH	Optimising supply chains using traceability systems (Xanthopoulos)
8 TH	Building traceability systems - Modelling food supply chains for tracking and tracing
9 TH	Building traceability systems - Traceability of analytical measurements
10 TH	Traceability technologies - DNA markers for animal and plant traceability
11 TH	Traceability technologies - Electronic identification, DNA profiling and traceability of farm animals (RFID) (Arvanitis, Loukatos)
12 TH	Traceability technologies -Storing and transmitting traceability data across the food supply chain. (Arvanitis, Loukatos)
13 TH	Traceability technologies - Data carriers for traceability (barcoding, EAN.UCC numbering system, RFID, EPC) (Arvanitis, Loukatos).

Assignments

1. Case study - Benefits of traceability in fruits* supply chain - case study (*chose one fruit)
2. Case study - Benefits of traceability in vegetables* supply chain - case study (*chose one vegetable)

Exams, marking and student assessment

Assignments (two): 60%, Written exams: 40%

Reference material

Sparks, L., Gustafsson, K., Jönson, G., & Smith, D. (2006). Retailing Logistics and Fresh Food Packaging: Managing Change in the Supply Chain.

Smith, I. & Furness, A. (2006). Improving traceability in food processing and distribution.

Charlot, Benoit & Montet, Didier & Ray, Ramesh. (2017). Food Traceability and Authenticity- Analytical techniques.

British Retail Consortium (2009). Best Practice Guidance: Traceability. TSO (The Stationery Office). ISBN: 9780117066274

British Retail Consortium (2015). Global Standard for Food Safety Issue 7. TSO (The Stationery Office). ISBN 978-1-78490-212-4

<http://www.brcbookshop.com/c/378/food-safety>

Campden BRI (2009). Traceability in the food and feed chain: general principles and basic system requirements. Guideline no 60. ISBN: 978 0 905503 56 9

Codex Alimentarius Commission (2006). Principles of traceability/Product tracing as a tool within a food inspection and certification system. CAC/GL 60-2006.

<http://www.codexalimentarius.org/standards/list-of-standards>

Food and Agriculture Organization (2014). Best practice guidelines on traceability (Fisheries). COFI:FT/XIV/2014/7

<http://www.fao.org/cofi/29510-0d3ea0e690044579673debe9c27579459.pdf>

Global Food Safety Initiative (2013). GFSI Guidance Document Sixth Edition Issue 3 Version 6.3. GFSI.

<http://www.mygfsi.com/schemes-certification/benchmarking/gfsi-guidance-document.html>

International Organisation for Standardisation (2007). Traceability in the feed and food chain – General principles and basic requirements for system design and implementation. ISO 22005:2007.

Red Tractor Farm Standards

<http://assurance.redtractor.org.uk/rtassurance/schemes/Standardshome/Standards2014.eb>

Regulation (EC) 178/2002 on general food law

[Regulation \(EC\) No 178/2002 - EUR-Lex - Europa](#)

Regulation (EC) 852/2004 on the hygiene of foodstuffs

[Regulation \(EC\) No 852/2004 - EUR-Lex - Europa](#)

Regulation (EC) 853/2004 on the hygiene of food of animal origin

[Regulation \(EC\) No 853/2004 - EUR-Lex - Europa](#)

Regulation (EC) 854/2004 on the organisation of official controls for food of animal origin

[Regulation \(EC\) No 854/2004 - EUR-Lex - Europa](#)

Regulation (EC) 931/2011 on traceability requirements for food of animal origin

[Regulation \(EC\) No 931/2011 - EUR-Lex - Europa](#)

Regulation (EC) 1830/2003 on traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms

[Regulation \(EC\) No 1830/2003 - EUR-Lex - Europa](#)

Regulation (EU) 1337/2013 on application of Regulation (EU) No 1169/2011 as regards the indication of the country of origin or place of provenance for fresh, chilled and frozen meat of swine, sheep, goats and poultry

[Commission Implementing Regulation \(EU\) No 1830/2003](#)

Regulation (EU) 208/2013 on traceability requirements for sprouts and seeds intended for the production of sprouts

[Commission Implementing Regulation \(EU\) No 208/2013](#)

Regulation (EU) 1169/2011 on the provision of food information to consumers

[Regulation \(EU\) No 1169/2011](#)

The Food Safety and Hygiene (England) Regulations 2013

[The Food Safety and Hygiene \(England\) Regulations 2013](#)

General Food Regulations 2004

http://www.legislation.gov.uk/uksi/2004/3279/pdfs/uksi_20043279_en.pdf

General Food Regulations (Northern Ireland) 2004

<http://www.legislation.gov.uk/nisr/2004/505/made>