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Universidad Politécnica de Cartagena (UPCT). SPAIN



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PRACTICAL INFORMATION

The Course is addressed to Postharvest professionals and pre and post graduate students related to quality and safety assurance, research and extension on production, handling, transport and marketing of whole and fresh-cut fruit and vegetables.

- ✓ The course consists of 52 recorded videos (≥ 30 min each) organized in 5 Units. Total Course duration is 25 h
- ✓ The videos are available at any time on the e-platform and can be watched at the student's convenience
- ✓ Tutoring of each class will be attended by the instructor
- ✓ Periodical Group tutoring sessions in streaming
- ✓ A simple evaluation test consisting of multichoice questions must be passed after each Unit
- ✓ Supplementary material for each unit will be also available on the e-platform
- ✓ An official certificate will be awarded by UPCT
- ✓ The 'making of' and a sample could be found at <https://media.upct.es/videos/?vim=MTU5MzA=>

COURSE ENROLLMENT AND FEES

Registration fees: Professionals: 600€; Students: 300 €;
UPCT students: 150 €.

Online Registration at <https://cutt.ly/pkfQCC7>

More info: postharvest@upct.es ; www.upct.es/gpostref/
iTake the time you need to complete the Course!

43 INSTRUCTORS FROM:

5 Continents
23 Countries
33 Universities/Research Centers



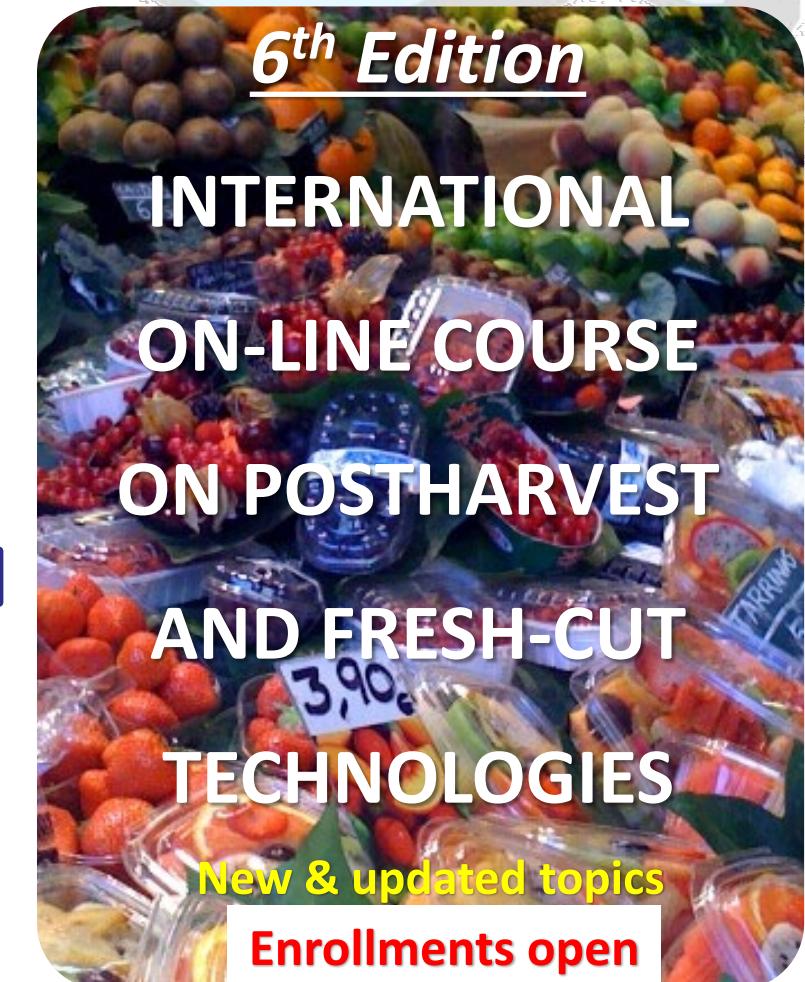
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Naturally Postharvest

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Postharvest
FRUITS, VEGETABLES & ORNAMENTALS



Ongoing up to 15th November 2021

UNIT 1. INTRODUCTION AND FUNDAMENTALS (2.5 h)

1. Introduction. Postharvest losses. The Food Preservation Revolution.

Charles Wilson (World Food Preservation Center® LLC, USA)

2. Environmental factors affecting postharvest quality and safety.

Francisco Artés-Hernández (UPCT, Spain)

3. Composition of fruit and vegetables. Nutritional quality.

Luis Cisneros-Zevallos (Texas A&M University, USA)

4. Physiology and biochemistry of fruit and vegetables.

Ariel Vicente (Universidad Nacional de La Plata, Argentina)

5. Preharvest factors affecting postharvest quality and safety.

Perla Gómez (Institute of Plant Biotechnology -UPCT), Spain)

UNIT 1 multichoice questions Test



UNIT 2. HORTICULTURAL QUALITY AND MATURATION (5 h)

6. Ethylene and maturation.

Daniel Valero (Universidad Miguel Hernández, Spain)

7. Maturity Indices and quality attributes determination.

Giancarlo Colelli (Università degli Studi di Foggia, Italy)

8. Nondestructive quality measurement.

María Luisa Amadio (Università degli Studi di Foggia, Italy)

9. Strategies to inhibit synthesis and action of ethylene during postharvest.

Chris Watkins (Cornell University, USA)

10. Strategies to remove ethylene during postharvest.

Francisco Artés-Hernández (UPCT, Spain)

11. Postharvest pathology.

Lluís Palou (Instituto Valenciano de investigaciones Agrarias, Spain)

12. Postharvest physiological disorders.

Juan Pablo Fernández-Trujillo (UPCT, Spain)

13. Improvement of Postharvest traits through genetics and biotechnology.

Jean Claude Pech (University of Toulouse, France)

14. Biological control of postharvest diseases.

Samir Drob (ARO, The Volcani Center, Israel)

15. Modelling postharvest quality.

Bart Nicolaï (Katholieke Universiteit Leuven, Belgium)

UNIT 2 multichoice questions Test

UNIT 3. COLD STORAGE ENGINEERING & TECHNOLOGY (5 h)

16. Cooling techniques.

Antonio López-Gómez (UPCT, Spain)

17. Pre-cooling systems.

María Teresa Sánchez-Pineda (Universidad de Córdoba, Spain)

18. Postharvest ethylene application techniques.

Francisco Artés (UPCT, Spain)

19. Controlled atmosphere storage.

Mustafa Erkan (Akdeniz University, Turkey)

20. Modified atmosphere packaging.

Randy Beaudry (Michigan State University, USA)

21. Dynamic controlled atmosphere storage.

Pieter Verboven (Katholieke Universiteit Leuven, Belgium)

22. Postharvest packaging design.

Bárbara Teruel (Universidad de Campinas, Brazil)

23. Temperature, relative humidity & gas sensors during shelf life.

Manuela Zude-Sasse (ATB, Germany)

24. Refrigerated air and truck transportation.

Victor Hugo Escalona (Universidad de Chile, Chile)

25. Refrigerated maritime transportation of horticultural produce.

Leo Lukase (Wageningen University, The Netherlands)

UNIT 3 multichoice questions Test

UNIT 4. POSTHARVEST HANDLING SYSTEMS (7 h)

26. Postharvest handling systems: Citrus fruit.

Mark Ritenour (University of Florida, USA)

27. Postharvest handling systems: Table grapes.

Luis Luchsinger (Universidad de Chile, Chile)

28. Postharvest handling systems: Berries.

Victor Hugo Escalona (Universidad de Chile, Chile)

29. Postharvest handling systems: Pome fruits.

Domingos Almeida (University of Lisbon, Portugal)

30. Postharvest handling systems: Stone fruits.

Peter Toivonen (Agriculture and Agri-Food Canada, Canada)

31. Postharvest handling systems: Pomegranates.

Linus Opara (Stellenbosch University, South Africa)

32. Postharvest handling systems. Fruit vegetables: tomato, pepper, eggplant

Pavlos Tsouvaltzis (Aristotle University Thessaloniki, Greece)

33. Postharvest handling systems. Fruit vegetables: melon, watermelon, cucumber.

Victor Rodov (ARO The Volcani Center, Israel)

34. Postharvest handling systems: Leafy and stem vegetables.

Perla Gómez (Institute of Plant Biotechnology -UPCT, Spain)

35. Postharvest handling systems: Bulb and inflorescence vegetables.

Maria del Carmen Alamar (Cranfield University, United Kingdom)

36. Postharvest handling systems: Pineapple and exotic fruits. Sunil Pareek (National Institute of Food Technology- NIFTEM, India)

37. Postharvest handling systems: Banana.

Edmundo Mercado (Universidad de Querétaro, Mexico)

38. Postharvest handling systems: Mango, papaya and coconut.

Kietsuda Luengwilai (Kasetsart University, Thailand)

39. Postharvest handling systems: Kiwifruit and avocado.

Allan Woolf (Plant Food Research, New Zealand)

40. Practical interventions for crop postharvest loss reduction.

Deirdre Holcroft (Postharvest Education Foundation. USA)

41. Supply chain management of added-value fresh produce.

George Manganaris (Cyprus University of Technology. Cyprus)

UNIT 4 multichoice questions Test

UNIT 5. FRESH-CUT FRUIT AND VEGETABLES (5.5 h)

42. Fresh-cut fruit and vegetables. Physiology and biochemistry.

Jeffrey K. Brecht (University of Florida, USA)

43. Fresh-cut. Unit operations & equipment: vegetables.

Francisco Artés (UPCT, Spain)

44. Fresh-cut. Unit operations & equipment: fruits.

Giancarlo Colelli (Università degli Studi di Foggia, Italy)

45. Fresh-cut. Safety issues.

Hidemi Izumi (Kindai University, Japan)

46. Fresh-cut. Genomics - volatiles emission.

Antonio Ferrante (Università degli Studi di Milano, Italy)

47. Fresh-cut. Water sanitation: Chlorine and alternatives.

Francisco Artés-Hernández (UPCT, Spain)

48. Fresh-cut. Alternative treatments: UV-C & gases.

Perla Gómez (Institute of Plant Biotechnology -UPCT, Spain)

49. Fresh-cut plant processing design.

Francisco Artés-Hernández (UPCT, Spain)

50. By-product revalorization in the postharvest industry.

Encarna Aguayo (UPCT, Spain)

51. Minimal processing of plant products: smoothies, purees, etc

Ginés Benito Martínez-Hernández (UPCT, Spain)

52. Future research needs in Postharvest and Fresh-cut Technologies. In Memoriam of Adel Kader. Francisco Artés-Hernández, Giancarlo Colelli & Luis Cisneros-Zevallos

UNIT 5 multichoice questions Test



*Subjected to small changes if considered