

Syllabus and schedule

Spring 2022 HORT 54100/FS 54100 POSTHARVEST TECHNOLOGIES OF FRUITS AND VEGETABLES

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Research Area: Postharvest and Molecular Biology

Department of Horticulture and Landscape Architecture

Dates February 14 to March 25, 2022

Syllabus / Tentative Course Outline

Week 1 (Dr. Handa)

- Feb 14: Introduction to postharvest technology and management
Feb 16: Maturity, harvest index and quality evaluation of horticultural crops.
Feb 18: Effects of temperature on shelf-life of produce

Homework 1 distributed

Week 2 (Khalil Jahed)

- Feb 21 Respiration and its significance in postharvest shelf life. Methods to regulate this process during storage of fresh produce.
Feb 23 Ethylene: Significance and use in post-harvest: .

Homework 1 one Due

- Feb 25 Continue -- Ethylene

Homework 2 distributed

Week 3 (Dr Handa)

- Feb 28: Controlled and modified atmosphere storage of harvested vegetables and fruits
Mar 2: *Controlling water loss from produce*

Homework 2 due

- Mar 4 Pre-cooling of harvested produce. Catch up any unfinished lecture

Homework 3 distributed

Week 4 (Dr. Handa)

- Mar 7 Physiological disorder and how they impact quality of produce during storage
Mar 9: Postharvest pathology and control of postharvest diseases

Homework 3 due

- Mar 11: Storage technology including principles of refrigeration treatments

Homework 4 distributed

Week 5 (Dr. Handa)

- Mar 21: Commodity treatments to extend shelf-life of produce-1

Homework 4 Due

- Mar 23: Commodity treatments to extend shelf-life of produce-2

- March 25: Final in class quiz from last two lectures