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| **Subject** | **Precision Harvest and Postharvest Technologies** |
| **Type** | **Semester** | **ECTS** | **Code** |
|  Z |  III |  6 | / |
| **Aims and Objectives** | Precision Harvest and Postharvest Technologies course with elaborate on the basic tenets of harvest and postharvest technology, which are the structure of fruit and vegetables and how this influences their postharvest behaviour, then summarises key information about their composition, biochemistry, respiration and physiology. Temperature and humidity control are the core technologies for maintaining fresh quality, and their management is discussed in depth. Fresh produce is also susceptible to various pathogenic diseases and physiological disorders that need to be identified and controlled by environmentally friendly methods. Technologies that are adjuncts to temperature management, including atmosphere control, controlled ripening, packaging and transport, are discussed in some detail. |
| **Learning outcomes** | After successful completion of the course, students will be able to:* Define harvest maturity of different fruits and vegetables
* Define basis of Grading and sorting of fruits & vegetables
* Apply of different postharvest techniques on fruits & vegetables
* Changes in physical and chemical quality parameters of fruits
* Effect of packaging materials on stored fruits and vegetables
* Maintain product quality and safety.
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| **Literature/References** | Cantwell M. 2001. Post-harvest handling systems: Minimally Processed Fruit and Vegetables. University of Califronia. USA.Crisoto C, Crisoto G. 2020. Manual on Postharvest Handling of Mediterranean Tree Fruits and Nuts. CABI.Kader A. 2002. Postharvest Technology of horticultural crops. Univesity of California.Kader, A.A., 1983. Post-harvest quality maintenance of fruits and vegetables indeveloping countries. In: Lieberman, M., Post-Harvest physiology and croppreservation. Plenum Publishing Corporation.Kitinoja, L., Gorny, J., 1998. Post-harvest technology for fruits and vegetables Producemarketers: Economic opportunities. Quality and Food Safety by, Department ofPomology, University of California, Davis. A joint publication of UC Postharvest Outreach Program and Punjab Horticultural Post harvest technologyCentre, USAID/ACE. Wills R, Golding J. 2016. Postharvest. CABI.Tang J, Mitcham E, Wang Sh, Lurie S, 2007 Heat Treatments for Postharvest Pest Control. CABI.[Thomaj T. 2016. Teknologjia e pasvjelejs se produkteve hortikulturale. Tirane.](https://www.cabi.org/bookshop/book/9781789247176/)[Dris R, Niskanen R. A Handbook on Post Harvest Management of Fruits and Vegetables Helsinki, Finland](https://www.cabi.org/bookshop/book/9781789247176/)John J. 2010. Postharvest Management and Processing of Fruits and Vegetables:Wills R, Golding J. 2016. Postharvest. An introduction to the physiology and handling of fruit and vegetables. Unsw Press & CABI |