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| Name of course: **Organic crop production** | **Credit value: 3** |
| **Course** **classification**: optional | |
| **The proportion of the practical nature of the course, „educational character”: 50-50%** | |
| **Type of course:** theoretical / practical, and the **total number: 1+1 hours** in the given **semester.**  Further (unique) means and properties of knowledge transfer: | |
| **Exam** type (colloquium / practical grade / **other** ): colloquium  Further (unique) means of knowledge verification**:** | |
| The curricular **place of the course** (which semester): 4 | |
| Prerequisites (if any): **-** | |

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| **Course description: a brief, but informative description of the knowledge to be acquired (14 weeks).** |
| The aim of the course is to acquaint students with the principles of environmentally friendly, chemical-free crop production technology, the theoretical aspects of cultivation technology elements and their possible practical implementation, just as the interactions between the individual elements. Get to know the alternative options and ways of converting traditional crop production to organic farming, the advantages and problems of organic farming, the realistic perspectives of its development.  Subject topics:  Week 1: Overview and development of traditional crop production, developmental stages.  Week 2: Environmental risks and their assessment in conventional crop production.  Week 3: Trends in organic farming.  Week 4: Principles of organic farming.  Week 5: Terms and opportunities for the transition to organic farming.  Week 6: Options for nutrient supply and maintenance of soil fertility.  Week 7: Weed control options  Week 8: Pathogen control options  Week 9: Pest control options  Week 10: Practical cultivation technology of organic farming for some main field crops.  Week 11: Organic farming and crop quality.  Week 12: Special mechanization in organic farming.  Week 13: National and international standards and vertical system of organic farming.  Week 14: Production, inspection, certification, trade in organic products. The current situation and perspectives of organic farming in Hungary and abroad |
| **Required and recommended reading:** |
| **Required reading:**  Sarath Chandran Unni M.R. Sabu Thomas (2018). Organic Farming 1st Edition  ISBN: 9780128132722, eBook ISBN: 9780128132739, p. 436  S.P. Palaniappan/K. Annadurai (2018). Organic farming theory & practice  ISBN: 9788172335380, E-ISBN: 9789387869431, p. 257  **Recommended reading:**  Franc Bavec, Martina Bavec (2019). Organic production and use of alternative crops. ISBN ‎ 978-0367453534  Edith T. Lammerts van Bueren, James R. Myers (2011). Organic Crop Breeding  ISBN:9780470958582 |
| **Competencies to be acquired, related to the course:** |
| **a) Knowledge:**  - Students know in detail the current requirements of the knowledge and activity system of crop production, the leading theories, the overall relations, the limitations of their application, and the terminology describing them.  **b) Ability:**  - Students are able to apply complex, new methods and techniques and technologies that can be used in crop production.  Students are able to identify special professional problems related to crop production, to explore and formulate the detailed theoretical and practical background needed to solve them.  **c) Attitude:**  - Openness to learn about and practicing modern and innovative crop production methods.  **d) Autonomy and responsibility:**  - It has autonomy as to the way in which crop production activities are carried out.  Able to manage independently, with an environmental-conscious approach, to apply and develop modern agricultural technologies related to crop production.  It reflects on and responsibly represents the ethical issues of crop production and evaluates the consequences of its decisions. |

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| **Course leader** (name, post, academic degree): **Dr. András Szabó assistant professor, PhD** |
| **Other lecturer(s) involved in teaching the course, if any** (name, post, academic degree): **-** |