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# ORGANIC AGRICULTURE COURSES ACCREDITATION CRITERIA & GUIDELINES

*For teaching courses in organic agriculture provided by  
Secondary Agricultural Schools*

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## Foreword

The publication “Organic Agriculture Courses Accreditation Criteria and Guidelines” is intended to be used by the stakeholders in organic sector in Serbia. It has been developed within the framework of the UN FAO Project GCP/SRB/001/HUN: “Assistance to the Development of Capacity and Support Services for Organic Agriculture in Serbia”, implemented by FAO and financed by Hungarian Ministry of Agriculture. The project is implemented in coordination with the Ministries of Agriculture and the Ministry of Education of Serbia.

The project aims to improve capacity of farmers and other value chain stakeholders in organic market oriented value chains through participatory training in farmer field schools and farmer business schools. That is further supported by strengthening of Center for Organic Production in Selenca which has been empowered to provide training and facilitation of market linkages and business development. Project visibility and awareness about organic agriculture was enhanced by numerous activities and publicity work of National Association for Organic Agriculture Serbia Organica.

Broader base of competences for organic agriculture has been supported by upgrading secondary education curricula for organic agriculture and inclusive practical training of teachers and high school students. Overall institutional environment for inclusive organic value chain development will be strengthened by participatory formulation of National programme for capacity development and provision of support services for region-specific organic production development.

The materials produced within the framework of the project have been tested and validated during the workshop and training sessions.

“Organic Agriculture Courses Accreditation Criteria and Guidelines” was prepared by dr Vladislav Popov.

We gratefully acknowledge contributions of all participants and principal authors, as well as all project team members: Aleksandar Mentov, National Project Manager; Olga Keselj and Bratislav Stamenkovic, National Consultants; Zhupan Martinovski and Vladislav Popov, International Consultants; Gyongy Kurthy, International Team Leader; as well as Nevena Aleksandrova and Stjepan Tanic from FAO Regional Office for Europe and Central Asia for their technical guidance and supervision of project implementation. The manual layout and design were prepared by Alexander Swanwick.

# Abbreviations

OA - Organic Agriculture

OP - Organic Production

SAS - Secondary Agricultural Schools

# INTRODUCTION

Situation analysis of Serbian organic agricultural sector and the Needs Assessment of the Serbian education and training in secondary professional schools, revealed the necessity of increasing practical education of school students in the field of organic agriculture. In the so called 'competence-based learning' the practical skills of students at secondary level become essential for their future work placement or higher education.<sup>0</sup>

The FAO project proposed changes that focus essentially on reducing theoretical lessons (classes) from 64 hours per organic agriculture subject to 40 hours of theoretical classes per year per subject leaving 24 h. of practical exercises per year per subject. Additionally, about 30% of students' weekly practice (6 hours in 1 day/week) could be devoted to organic practice (e.g. on the school fields, glass-house, animal stables, or outside the school in private firms, farms and markets). The overall opinion of actors involved in organic education is that the new practically oriented programme is better structured and suited to provide practical knowledge to students and prepare them for their future work placement.

The FAO project provided also a Handbook for Organic agriculture in secondary agricultural schools and vocational centres. There is a need to provide professionals with concise Accreditation Guidance.

The aim of the guidance is to set up a framework in which teachers and institutions involved in organic agricultural education and training could develop their own teaching programmes. The programmes should be initially designed and agreed by the management of each Agricultural Secondary School and should be:

- mindful of the Handbook and changes in the teaching curricula;
- adapted to existing infrastructure of each school (premises for practical training, including land, machinery, buildings, plants, animals, processing facilities, etc.);
- adapted to local agro-ecological conditions of the region;
- considering the prospects for work placement of future school graduates;
- mindful of availability and qualification of teachers and trainers.

The Accreditation Guidance may provide suggestions of how to maintain the necessary quality of SAS practical education, while following the teaching plan, by regularly checking and testing the various elements of the teaching process. The checking of these elements may include, among others:

- professional level of qualifications of school teachers involved in organic agriculture training;
- quality of the teaching programme, incl. the practical assignments, of each of the four existing organic subject plus the suggested new subjects of "Marketing and Management in OA" and "Processing in OA";
- training methods and tools;
- reference literature and electronic sources of information (including projects);
- approaches to get practical skills – possibilities for organic certification, utilisation of regional or/and national markets, possibilities for apprenticeship or know-how exchange

with regional farms or processing units, possibilities of exchanges of students' (summer time) practices with other SAS (in Serbia and EU);

- Regional organic sector development and regional agricultural specialisation;
- Future perspectives of SAS organic graduates.

The knowledge of the Handbook for Organic agriculture in secondary agricultural schools and vocational centres by teachers is assumed. Regular seminars and trainings for upgrading qualifications of teachers in organic agriculture should also be planned by the accredited institution.

Responsibility for assuring Internal Quality Handbook and the collection of Quality Documents regarding accreditation of SAS to educate in organic agriculture is to be assured by the SAS Management Board. The final decision for SAS candidates for accreditation is to be taken by the Serbian Institute of Improvement of Education.



# CHECKLIST FOR THE VALIDATION

## 1. TARGET OF THE CHECKLIST

This checklist describes the process of the basics of evaluation and validation of Serbian Training Institutes (i.e. SAS), which want to be accredited to organise and perform secondary education and training in organic agriculture. It also offers the basic evaluation criteria for quality of processes, needed documents and standardized education in this certain matter.

## 2. DOCUMENTS TO BE USED

- 2.1 Personal Matrix and Teachers' qualification – to check the level of qualifications of school teachers involved in organic agriculture training;
- 2.2 Criteria regarding educational institutions:
  - Quality of the teaching programme, incl. the practical assignments, of each of the four existing organic subject plus the suggested new subjects of “Marketing and Management in OA’ and ‘Processing in OA’,
  - Approaches to get practical skills – possibilities for organic certification, utilisation of regional or/and national markets, possibilities for apprenticeship or know-how exchange with regional farms or processing units, possibilities of exchanges of students’ (in summer) practices with other SAS (in Serbia and EU),
  - Future perspectives of SAS organic graduates.
- 2.3 Quality of training methods and tools;
- 2.4 Availability and quality of reference literature and electronic sources of information (including projects);
- 2.5 Students’ satisfaction level evaluation;
- 2.6 Level of regional organic sector development and regional agricultural specialisation

## 3. HOW TO USE THIS CHECKLIST

For the SAS checklist is the basic for preparation for accreditation of the organic educational process.

The SAS itself has the opportunity to decide the level and parts of educational contents to meet the needs of their local markets.

## 4. GENERAL

- Availability of the whole documentation – check-lists from 2.1 to 2.6 for internal and external quality management of OA programmes and processes?
- Is there a general information about this documentation to all teachers and SAS managers?
- Who creates and updates these information?
- When have been these information done?
- Maintenance of the personal matrix of the SAS institute.
- Who is the responsible person for the validation process (evaluation sheets from students)?

## 2.1 Personal Matrix and Teachers' Qualification

### CONTENT AND USE

This part of the Guidelines can be useful as a compendium for the hold of quality teaching competencies to trainers and teachers. The teachers are asked to work along these guidelines of the QS.

Professional competencies

- Organic agriculture knowledge enables teaching of the story and practical knowledge.
- Concrete knowledge stands under the leading terms: organic cycles, biodiversity, biological plant protection, soil fertility, common processing.
- Managing organic field crop farming:
  - crop rotation and selection of pre-crops
  - selection of resistant varieties
  - tillage system
  - fertilisation system
  - sowing
  - plant health
  - harvest and post-harvest.

### TEACHING COMPETENCIES

- Teaching methods should be close to the real workplace and product oriented, i.e. products should be produced in class;
- Variety of teaching methods increases the motivation of participants;
- Successful teaching follows several principals.

### STUDENTS-ORIENTATION

Secondary education and training is always adult education, therefore a heterogeneous mixture of students can be expected.

Students are likely to have different levels of professional and personal biographies. Knowledge transfer is only successful if these individual biographies with their different learning speeds are taken into account - internal differentiation (coping with heterogeneity).

### ACTIVE LEARNING AND PRACTICAL ORIENTATION

Knowledge should be communicated and competencies should be acquired so that a professional conduct in all aspects of organic production and marketing is the result of the schooling (instruction, tuition).

### SUPPORTING AND SECURING THE KNOWLEDGE TRANSFER

To check that learning targets are a regular element of teaching as a means of control for the teacher, as a way to provide students with a sense of achievement and as a mean of self-control for students.

## TUITION SHOULD INCLUDE FOLLOWING ELEMENTS:

- Subject input;
- Training periods: independent acquisition, understanding, and application of contents of teaching;
- Reflection periods for the class as a whole, for the development of attitudes and the ability to work in a team.

## COMPETENCIES

To judge the professional and pedagogical competencies of teaching staff the following should be taken into account:

- Develop a multiple choice test, which a teacher has to complete with his application to test the pedagogical competencies.

<b>School education</b>	Agricultural College	University of applied science Technical college	University
<b>Professional training</b>	Agronomist or Animal husbandry specialist	MSc Organic Crop or Animal husbandry	Agricultural engineer or economist
<b>Professional experience</b>	Agriculture teaching and training	Processing Self-employed in agriculture	Certification, Food control , Consultancy

## PERSONAL MATRIX

Personal Matrix – Organic Agriculture Teacher

<b>ORGANIC AGRICULTURE TEACHER</b>	<b>Educational Level</b>	<b>Professional Qualification</b>	<b>Pedagogical Level</b>	<b>Professional Competencies</b>	<b>Periodical educational meetings</b>	<b>Score</b>
<b>Basic qualification</b>	College, BSc Degree, also Side-by-side education (Tutorial)	Agronomist-MSc Organic agriculture, Experiences in organic crop and animal husbandry	Certified by assessment according to Qualification level	Knowledge according to "Basic Qualification"	Yearly visit to a national professional meeting	
<b>Advanced operational qualification</b>	University of applied science - University MSc; also Side-by-side education (Tutorial)	Agronomist-MSc Organic agriculture, Experiences in organic crop and animal husbandry	Certified by assessment according to Qualification level	Knowledge according to "qualification standards operation level"	Yearly visit to a national professional meeting	

<b>ORGANIC AG- RICULTURE TEACHER</b>	<b>Educational Level</b>	<b>Professional Qualification</b>	<b>Pedagogical Level</b>	<b>Professional Competencies</b>	<b>Periodical edu- cational meet- ings</b>	<b>Score</b>
<b>Agricultural Business</b>	Agricultural College	Farmer, Agricultural economist	Certified by assessment according to Qualification	Knowledge of Management, Marketing, Economy	Yearly visit to a national professional meeting	
<b>Lecturer / trainer</b>	Self-employed in agriculture - Consultancy also Side-by- side education (Tutorial)	Agriculture - Processing - Food control Trade Experiences organic Retail	Certified by assessment according to Qualification level	Knowledge of the certain section of teaching contend	Yearly visit to a national professional meeting	

## QUESTIONNAIRE FOR ASSESSMENT OF TEACHERS

This questionnaire is not meant to have the character of an exam that would lead to a selection of (job) applicants. It could rather be the basis for a discussion between the provider and the applicant about their educational concepts.

**1st assumption: Your group of learners is heterogeneous. Learners have (very) different "learning biographies".**

*How do you deal with this?*

- You provide the group with many different inputs for every new subject matter.
- You differentiate the teaching material according to the different learning speeds of the students.
- You tell the group that different individual learning speeds have to be levelled up by doing more intensive individual home work.
- In your first teaching week, you sort out those learners that are too slow.

**2nd assumption: There is no given book or anything similar that you can teach from. So you yourself have to design your own class material.**

*How do you deal with this?*

- You copy theoretical texts, for example from textbooks, and ask the learners to work out the contents by themselves.
- You copy recently published articles about every subject matter and give these into the hands of your students. You start every single lesson, by principle, with your self-designed short presentation of the topic (overhead transparency; power point etc.).
- You start every new day by asking the students about the material taught the previous day. You ask the students that they themselves should organize the beginnings of the lessons. You design questionnaires that are meant to help the students in structuring and learning their material. You design questionnaires in order to control the learning process of the students more efficiently. (= different use of questionnaires!).

- You work with different media (texts, film, audiocassettes etc.). Your students start, categorically, the course by learning their own systematic research on the internet.

***Should the course, according to you, contain the following elements?***

- Input on the subject matter.
- Training phase: Students acquire, understand and apply subject matters by their own, independent effort. In a second phase, in the classroom Students reflect on the subject matters collectively. Thus, they are supposed to develop attitudes, ethics and the ability to work in a team.

***In the teaching process, motivation of the participants can be kept high by:***

- Discussing "teaching objectives" (i. e. what you want to achieve during the course) with the students and by agreeing jointly on how to control the progress that individual learners have made? Making a test at the end of each lesson or each day in order to control whether all students have reached the teacher's "teaching objectives"? (= different view on "teaching objectives"!)
- Finding a rhythm of teaching that contains both effort and relaxation?
- By clearly and repeatedly working out the connection between the subject matters and the job related (= professional) perspectives of the participants?

***Your teaching can be characterized by:***

- Individual support and encouragement for the participants, keeping in mind their professional orientation?
- The understanding, that sales activities always take place in front of a public and at the same time in a team?
- Participants should develop physical, emotional and mental strength (and "sovereignty") for coping with this situation?

## 2.2 Criteria regarding educational institutions

### 2.2.1 QUALITY OF THE ORGANIC TEACHING PROGRAMME

CRITERIA	EVALUATION	SCORE
Practical assignments addressing the student specialisation – adequate teaching rooms, premises, etc.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
Practical assignments addressing comprehensively the subject content, i.e. crop production, fruit production, vegetable production, animal husbandry, viticulture	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
Practical assignments are in accordance with teaching methods in use	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
Practical assignments addressing the subject ‘Marketing and Management in OA’	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
Practical assignments addressing the subject ‘Processing in OA’	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	

### 2.2.2 APPROACHES TO GET PRACTICAL SKILLS

CRITERIA	EVALUATION	SCORE
SAS premises organically certified or have possibilities (and plan) for organic certification	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS assures sufficient practical spots for exercising organic crop or animal husbandry practices, e.g. fields, glasshouse, animal shed, orchard, storage / processing unit, etc.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS organic teaching programme assures utilisation of regional or/and national markets addressing the subject content, i.e. crop production, fruit production, vegetable production, animal husbandry, viticulture	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS organic teaching programme provides possibilities for apprenticeship or know-how exchange of students at regional farms or processing units/ shops addressing the subject content	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS organic teaching programme provides possibilities for exchanges of students’ (in summer) practices with other SAS (in Serbia and EU)	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	

## 2.2.3 FUTURE PERSPECTIVES OF SAS ORGANIC GRADUATES.

CRITERIA	EVALUATION	SCORE
SAS has documented analysis of market for basic and advanced trained students – which of the specialties are on-demand?	Regular analysis – 10 points; Occasionally (if asked by Institute of Improvement of Education) – 7 points; No such analysis – 4 points.	
SAS practical programme and assignments assures placement of students according to specialisation	Number of graduates working in organic sector – 10 points; Number of graduates working in non-organic but agricultural sector – 7 points; Number of graduates not working in agricultural sector – 4 points	
SAS practical programme and assignments assures placement of students in higher educational institution, i.e. University	60-100% of graduates – 10 points; 30-60% of graduates – 7 points; 10-30% of graduates – 4 points.	

## TEMPLATE FOR EVALUATION OF SAS INSTITUTES

Evaluation of	Module	Role	Insufficient	Sufficient	Excellent	Notes
<i>A: Points of 100</i>			<i>A&lt;51</i>	<i>51&lt;A&lt;92</i>	<i>A&gt;92</i>	
		teacher				
		teacher				
		teacher				
		teacher				
		teacher				
		tutor				
		tutor (firm)				
		teacher				
		tutor				
		stage (firm)				
		coordinator				
		assistant				
<i>Total didactic quality</i>						
<i>Course availability</i>						
<i>Classroom quality</i>						
<i>Didactic material quality</i>						
<i>Laboratory quality</i>						
<i>Training firms quality</i>						
<i>Didactic objectives</i>						
<b>COURSE GENERAL QUALITY</b>						
<i>(to be filled in by the Institute of Improvement of Education)</i>					Observations	
Coordinator's signature						

## 2.3 Quality of the training methods and tools

### EVALUATION OF THE LEARNING TOOLS

An evaluation of the didactic results will be developed through implementing appraisal tools, therefore starting from a different approach to the real training content. Here, following tools can be used:

- free answer questions (during discussions),
- individual oral examination,
- practice tests,
- test beginning selection,
- exercise test,
- final examination test,
- presentations (oral, poster or power-point).

All tests or presentations can be calculated by a scoring system. Considering the final examination, they will also depend upon the criteria requested or indicated by the teacher or delegated Institution.

CRITERIA	EVALUATION	SCORE
<b>Inside classroom</b>		
SAS teachers use different modern methods for executing the assignment, e.g.: Internet information by desk-studies, farm visits, interviews, simple statistics for processing results, etc.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS teachers use various participative techniques such as Questions and answers, Tick-box discussion, Brainstorming, Exercises and Action planning, etc.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS teachers guide the desk-work on analysis of results, compare results with other groups or schools, and state simple recommendation for solution of the problem or improvement.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
<b>School orchards, gardens, fields, animal stables</b>		
SAS teachers use group-exercises for field and exchange visits of organic students.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS teachers can observe students during their 12 week practical period – on the field or glasshouse visual observations or experiments	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
<b>Outside school</b>		
SAS teachers and management arrange visits to farms, processing factories, bakeries, butcheries, certification firms, bazaars, research institutes, university labs, etc.	Pro-active – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS teachers provide written instructions and assignments, manuals and self-learning guidance to student (discussion) groups	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	



## 2.4 Availability and quality of the reference literature and electronic sources of information (including projects)

CRITERIA	EVALUATION	SCORE
SAS has possibilities to provide comprehensive literature on most of topics concerning organic crop and animal farming	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS does not have sufficient literature or electronic sources, but has a list with tools that plans to buy soon.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS has sufficient connections with other SAS or Universities, so most of the required literature can be assured.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS provides financial (and other) incentives to their teachers, so that they are stimulated to develop their own manuals, readers or guidance for the organic students.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	

## 2.5 Students' satisfaction level evaluation

### Principles of evaluation

The evaluation of outcomes is a strategic process for the success of an Institute/Agency in training service activities: for this reason an adequate implementing phase is built in.

First two macro criteria of reference were defined:

- Evaluation of learning
- Evaluation of classroom atmosphere.

In the first case we get the results in terms of learning, of the acquaintances development, competences and ability. In the second case we estimate if the total activity has been correctly set up to make communication, learning and participation processes as effective as possible.

### EVALUATION OF STUDENT SATISFACTION LEVEL

WARNING: FILE MUST BE ANONYMOUS

Evaluation of	Module	Role	Insufficient	Sufficient	Excellent	Notes
<i>A: Points of 100</i>			<i>A&lt;51</i>	<i>51&lt;A&lt;92</i>	<i>A&gt;92</i>	
		teacher				
		teacher				
		teacher				
		teacher				
		teacher				
		tutor				
		tutor (firm)				
		teacher				
		tutor				
		stage (firm)				
		coordinator				
		assistant				
<i>Total didactic quality</i>						
<i>Course availability</i>						
<i>Classroom quality</i>						
<i>Didactic material quality</i>						
<i>Laboratory quality</i>						
<i>Training firms quality</i>						
<i>Teacher's approach quality</i>						
<i>Practical fields/premises</i>						
<i>Support from the teachers and school management</i>						
<i>Quality of handling and controlling of problems regarding the course</i>						
<b>COURSE GENERAL QUALITY</b>						
<i>(to be filled in by the STUDENT)</i>		Observations / Suggestions				
<i>Place and Date</i>						

## 2.6 Level of regional organic sector development and regional agricultural specialisation

CRITERIA	EVALUATION	SCORE
SAS organic teachers have sufficient knowledge and documentation on organic sector development and regional agricultural specialisation	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS organic teachers and management have sufficient opportunities to arrange practical education and placement of students in relation to organic sector development and regional agricultural specialisation.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	
SAS has sufficient connections with other SAS, Universities or private organic enterprises in the region, so a large regional coalition can be formed for practical job placement of students.	Fully – 10 points; Partially – 7 points Insufficiently – 4 points	