



## **GUIDELINES FOR RECOGNITION OF CURRICULA IN AGRICULTURAL SYSTEMS MANAGEMENT BY**

### **THE AMERICAN SOCIETY OF AGRICULTURAL AND BIOLOGICAL ENGINEERS**

#### **INTRODUCTION**

The guidelines of this document establish minimum curricula requirements for programs in Agricultural Systems Management (or similarly named programs) to receive recognition by ASABE. The curricula identified under the broad heading of Agricultural Systems Management, are identified by various names such as Agricultural Systems Management, Agricultural Operations Management, Agricultural Mechanization, Agricultural Engineering Technology, Agricultural Systems Technology, Mechanized Systems Management, and Agricultural Mechanization and Business. These curricula, traditionally referred to as Agricultural Mechanization, are to be distinguished from areas of study in Agricultural Education which are important and worthy in their own right, but do not reflect the same thrust as Baccalaureate degrees in Agricultural Systems Management.

#### **POLICIES**

The main purpose of curricula in Agricultural Systems Management is intended to provide Baccalaureate degrees for people who intend to pursue professional careers related to technical operations and management in the broad agricultural industry. It is expected that these graduates will assume positions of responsibility and leadership in such areas as agricultural services and sales, agricultural management, agricultural production systems, product service, product testing and service management. They would also provide management responsibilities for public service agencies.

An institution responsible for the administration of a curriculum in Agricultural Systems Management, wishing to receive ASABE recognition, will submit a written application (found below) to ASABE. This application should be submitted to the executive director of ASABE, who will refer the request to the Committee for Agricultural Technology and Management Curriculum Review and Program Recognition (ED-206). That committee will evaluate the application and make a recommendation to the ASABE Board of Directors. ASABE, upon recommendation by the committee, will write a letter to the institutions that have applied for recognition and indicate to them the status of their request.

## **METHOD OF EVALUATION**

An institution with a curriculum in Agricultural Systems Management (or a similarly named program), which asserts that the curriculum meets the minimum criteria as specified in later sections of this statement, may submit an application to ASABE for review of the curriculum. The institution requesting the review has responsibility for submitting the appropriate documentary materials to establish that the curriculum meets the minimum criteria as identified by the guidelines statement. The request for recognition is intended to be a voluntary activity by each institution offering a curriculum in Agricultural Systems Management.

Upon receipt of the application for evaluation, ASABE will request that the ED-206 Committee review the document and make the appropriate recommendations to ASABE's Education Division, and Board of Trustees. The recommendation will be based upon the written materials provided by the institution requesting evaluation. On-site visitations conducted prior to review are not required (but are encouraged) to determine if the curriculum should or should not receive recognition. The ED-206 Committee may request additional information or clarification of material submitted, from the institution requesting recognition. The ED-206 committee requires that a representative for the program be present when the written materials are reviewed by the committee at the ASABE annual meeting.

## **CRITERIA**

### *I. General*

A curriculum in Agricultural Systems Management (or a similarly named program) is intended to develop the ability to assume a position of leadership in technical operations and management in the agricultural industry, whether in private industry, educational institutions, or public service agencies. Areas of study are intended to develop analytical processes for developing solutions to management problems associated with agricultural production, processing, distribution of agricultural products and support services to agricultural industries.

It is expected that the basic level of entry into the profession will require four years of study resulting in the Baccalaureate degree. The program of study is expected to include mathematics, the physical and biological sciences; technical agriculture, business and management sciences, agricultural engineering technology, humanities, social sciences, composition, communications and electives. The format (matrix) shown in Table 1 is the required format to present this information.

The subject matter areas are to include the following:

1. Mathematics, Physical and Biological Sciences - Courses can include algebra, trigonometry, analytical geometry, calculus, physics, chemistry, biology, statistics, and computer science.
2. Technical Agriculture - Courses can include animal science, soil science, plant science, hydrology, plant physiology, and other physical science courses related to agriculture.
2. Management Sciences - Courses can include economics, management, marketing, sales, accounting, personnel management, finance, legal studies, and insurance.

4. Agricultural Systems Management - Courses can include power, electrical and electronic, structures, engineering graphics, agricultural processing, irrigation and drainage, energy resources, operations management, and other system technology courses.
5. Humanities and Social Sciences - Courses can include history, political science, literature, psychology, sociology, environmental literacy, foreign language, and ethics.
6. Composition and Communication - Courses can include English composition, technical writing, speech and other courses providing education experiences in written and/or oral communication.
7. Electives - Approved electives are needed in order to meet specific objectives of each institution; however, it is recommended that an Agricultural Systems Management curriculum include unrestricted electives that permit students opportunities to pursue specific areas of interest.

Table 1. Example Matrix

ASM Curriculum Subject Matter Distribution									
		Subject Matter Distribution - Units							
		Math	Phys Sci	Biolog Sci	Tech Agric	Bus & Mgnt	Agric Sys Mgnt	Hum/ Soc Sci	Comp/ Comm unica
Course No & Title	Units								
ASM 101 Intro to ASM	3						3		
Phys 124 College Physics	4		4						
Engl 114 Composition	3								3
AgBus 230 Agric Econ	3					3			
etc.									
etc.									
Curriculum Total Units									
Curriculum Total (%)	100								
ASABE Guidelines (%)	100		15		15	15	15	10	15

## II. *The Faculty*

It is expected that the faculty responsible for an Agricultural Systems Management curriculum will be employees identified in the institution either as agricultural engineering faculty, agricultural systems management, or agricultural education faculty. The minimum faculty number will depend upon the size of the program at the institution; however, the identified faculty should devote major attention to the direction of the Agricultural Systems Management curriculum and instruction.

It is desirable that the faculty members have terminal degrees in either agricultural engineering, agricultural systems management, agricultural education, or related programs; however, the overall competence of the faculty is assessed by consideration of such factors as level of academic training, diversity of their backgrounds, non-academic experience, and experience in

teaching and demonstrated achievement of scholarship.

### *III. Identification of Curriculum, Admission, Retention and Certification of Graduates*

The curriculum in Agricultural Systems Management should be readily identifiable at the institutional level. An institutionally approved Agricultural Systems Management program of study should be published in the official bulletins or catalogs. The curriculum needs to have identity at the departmental, college and university level. Agricultural Systems Management curricula have traditionally been administered by Colleges of Agriculture and Agricultural Engineering Departments or allied fields. The faculty needs to assert recommendations for admission criteria, retention of students, and certification for graduation requirements. Specific procedures for these criteria will differ for each institution; however, the critical element is the identification of the Agricultural Systems Management curriculum by its own objectives and purpose and recognition of this identity throughout the institutional community.

### *IV. Support by Administration and Provision of Resources Documentation*

This necessary to verify that university and college level administrators recognize and support the curriculum in Agricultural Systems Management. It must be demonstrated that the necessary financial resources, physical facilities, course work, laboratories, library resources, laboratory materials, and teaching aids are available in order to provide meaningful educational experiences for the students.

### *V. Recognition by ASABE*

As indicated in earlier sections, the appropriate committee and councils of ASABE will review the written material provided by each institution. If ASABE recognizes the material as meeting the minimum criteria, the curriculum will be identified by ASABE as a recognized curriculum. This recognition period will be for a maximum of six years. At the end of the fifth year the institution should apply for re-recognition.

If ASABE decides not to recognize the curriculum as requested it is expected that ASABE will state reasons for non-recognition and permit the institution to provide additional and/or clarifying information and request reconsideration.

### *VI. Recognition Request*

The institution should forward the request for Recognition or Re-Recognition along with document or materials to the executive director of ASABE. After the request has been acknowledged, forward a copy of all support material to the members of the ASABE Committee ED-206, Agricultural Technology and Management Curriculum Review and Program Recognition, at least four months prior to the ASABE annual international meeting. Documentation of support materials should be complete and the sequence follows the ASABE guidelines stated above.

*Revised August 2010, ED-206 Committee Members and Officers*

# OBJECTIVES AND PROCEDURES FOR RECOGNITION OF CURRICULA IN AGRICULTURAL SYSTEMS MANAGEMENT

*Revised August 2004, American Society of Agricultural and Biological Engineers*

## VII. ASABE Curricula Recognition Check Sheet for Agricultural Systems Management Curricula Recognition

	SAT	UNSAT
I. Letter of Transmittal	_____	_____
II. Table of Contents	_____	_____
III. General Information	_____	_____
• History of the Educational Program	_____	_____
• Objectives of the program	_____	_____
• Student enrollment data		
1. Annual enrollment over past 5 years	_____	_____
2. Academic distribution - Freshman Sophomore, Junior, Senior, Graduate	_____	_____
• Graduates		
1. Undergraduate students - past 5 years	_____	_____
2. Graduate students - past 5 years	_____	_____
3. Typical job classification(s) and Employers	_____	_____
4. Approximate starting salaries	_____	_____
IV Curriculum Identification and Documentation		
A. Admissions criteria to the university	_____	_____
B. Admissions criteria to the program	_____	_____
C. Other related programs		

	SAT	UNSAT
1. Co-op or internship	_____	_____
2. Associate degree/ Program Options	_____	_____
3. Other	_____	_____

X Subject Matter Distribution (by area of study, semester or quarter hours in each area, and percent of total hours)

	Sem Hours	Percent Total Hrs	ED-206 of % Recommended
Humanities & Social Sciences	_____	_____	15%
Composition & Communications	_____	_____	10%
Total Math/Science	_____	_____	15%
Mathematics	_____	_____	
Biological Science	_____	_____	
Physical Science	_____	_____	
Business & Management Science	_____	_____	15%
Agricultural Systems Management	_____	_____	15%
Technical Agriculture	_____	_____	15%
Electives	_____	_____	15%

\* Computer Proficiency- explain how and to what extent students are achieving computer literacy

\*\* International Proficiency - explain how and to what extent students are getting multicultural and international experiences.

Program Plan of Study

Course descriptions (as shown in catalog)	_____	_____
Suggested Elective courses Course descriptions (as shown in catalog)	_____	_____
University Graduation Requirements	_____	_____
Degree(s) conferred (BS, MS, Ph.D.)	_____	_____
Minor (s)	_____	_____

	SAT	UNSAT
V. Teaching Staff		
A. University administrative organization as pertains to the agricultural systems management program.	_____	_____
B. Listing of departmental teaching staff with designation of those associated with the agricultural systems management program.	_____	_____
VI. Administrative and Resource Support		
A. Teaching allotments (F.T.E.)	_____	_____
B. Financial resources devoted to program (please do NOT itemize each faculty salary)	_____	_____
C. Physical facilities devoted to program	_____	_____
D. Laboratory facilities and equipment	_____	_____
E. Teaching aids (computers, visual aids, demonstration models, etc.)	_____	_____
F. Library resources / Internet Resources	_____	_____
G. Student Organizations recognized by University		
1. Student Club	_____	_____
2. (Other clubs .i.e. Alpha Mu, Quarter-scale Tractor)	_____	_____
VII. Additional Information		
A. Career brochure	_____	_____
B. Supplementary material	_____	_____

	SAT	UNSAT
VIII. Appendix		
A. Biographical data of designated faculty members associated with Agricultural Systems Management program.	_____	_____
Name	_____	_____
Academic Rank	_____	_____
Teaching appointment	_____	_____
Education	_____	_____
Employment experience	_____	_____
Courses currently taught	_____	_____
Courses taught previously or at other institutions	_____	_____
Graduate faculty status	_____	_____
Interest/Responsibilities	_____	_____
Memberships in professional Societies (ASABE)	_____	_____

Optional Items to Consider: ED-206 encourages the Institution to include the following information but does not require that this information be reported:

IX. Student / Alumni comments about the program:

X. Comments from outside reviewers:

XI. Minutes from Advisory Boards

VIII. Suggested *Timeline of Activities*

The following is the ED-206 committee’s suggested timeline of activities that will assist ASABE in the update of the ASABE Directory of Educational Programs.

July/August/September: ASABE staff will contact the ED-206 Committee Chair and request a verification of currently recognized curricula showing 1) Department, 2) the EXACT title of the program, and 3) the duration and/or status of the program. The ED-206 committee chair will submit an updated list that reflects the latest action taken by the ED-206 committee at the annual meeting to the Secretary of the Education Division ASABE.

November: The secretary of the ED-206 committee will consolidate changes to the Educational Programs Directory and notify the appropriate department/program administrators their program is scheduled for re-recognition. This communication will include the latest Educational Program Directory, a complete set of the recognition materials required (see attached).



December: Consolidate changes and prepare a final copy of the Educational Programs Directory information for roster publication. Print and send a courtesy copy to the ED-206 committee officers.

#### IX. Suggested *Timeline for Program Recognition*

September-October: ED-206 Committee Chair sends a letter to the program leader / chair for each of the programs that should be reviewed. The letter will indicate that the institution is up for renewal and that the committee is willing to assist in securing the most current copy of the ED-206 guidelines for recognition and assist in interpreting the guidelines for the institution.

October – May: The institution prepares the report for the committee.

May/June: The institution emails a copy of their report at least 30 days in advance of the Annual ASABE meet to ALL the committee members of the ASABE ED-206 committee for review.

International ASABE Meeting (June and/or July): Committee meets during the ASABE annual meeting with a designated program representative from each institution that has submitted recognition materials. **At least one representative from each institution that has submitted recognition materials is encouraged to be present when the committee discusses the materials.**

August: Institution provides additional information or corrections if requested by the committee.

September: Chair of ED-206 reports recommendations of the committee to ASABE.