Agriculture and Food Technology

Program Evaluation

May 2011

Program goals	**Program Learning outcomes** **(Upon successful completion of this certificate, students will be able to)** 1. Demonstrate an overall knowledge of the crop production process, 2. Practice good agricultural management and marketing skills, 3. Identify and demonstrate the fundamentals of food processing, preparation techniques, the relationship between the scientific principle and cooking procedures 4. Identify and demonstrate the basic skills and principles of swine and poultry production techniques, including breed selection, feed, housing, management techniques and animal health, 5. Apply the basic skills and knowledge of nursery micro-propagation practices, transplanting, harvesting, and maintenance, 6. Identify the proper use of land for agriculture purposes, local ornamental, and turf management.
Program history	The Agriculture and Food Technology Certificate of Achievement was dormant for many years even though program already existed. Students were not interested in getting a certificate in the program. Farming was considered dirty and parents talked their kids out of enrolling into the program. As the AFT lay dormant if also affect the degree program at COM-FSM National Campus. In 2008 program started again with the assistant of the US Department of Agriculture Resident Instruction in the Insular Areas CariPac project funding the Coordinator. Fall 2008 upon opening the program again it started out with 10 students. **Please see the data below at outcome analysis it shows how the program progress in three years.**
Program description	Agriculture and Food Technology Certificate of Achievement offers courses that should be and are aligned with the degree program offered at COM-FSM National Campus. The program focuses on training of students to continue on for the degree program it also prepares student for the work force. Students will be able to take on jobs such as technicians or farming **depending on their choices for the future**.
Program admission requirements	Admission to Agriculture and Food Technology certificate is determined by the COMET results. High school graduates/equivalent: COMET results in respective programs. (High school graduate or GED certificate holder. Applicants must take the COM-FSM Entrance Test (COMET) and be accepted by the Admissions Board. Acceptance by the Admissions Board is based on the applicant's score on the COMET

<table>
<tr><td></td><td>and other criteria as defined by the Admissions Board.)</td></tr>
<tr><td>Program certificate/degree requirements</td><td>Program Requirements
General Education Requirements ……..13 credits
• CA 100 Basic Computer Applications (3)
• ESL 050 Technical English 050 (3)
• MS 104 Technical Math I (4)
• SC 098 Survey of Science (3)
Technical Requirements ……..21 or 22 credits
• AG 084 Basic Crop Production (4)
• AG 096 Field Internship (5)
Plus a minimum of 12 credits from the following:
• AG 086 Micro-Propagation (4)
• AG 088 Landscaping (3)
• AG 090 Principles of Food Processing (3)
• AG 092 Swine and Poultry Production (3)
• AG 094 Farm Management and Marketing (3)
Total Requirements ……34 – 35Credits</td></tr>
<tr><td>Program courses and enrollment</td><td>
<table>
<tr><th>Course #</th><th>Course title</th><th># of sections</th><th># of students</th><th>semester offered</th></tr>
<tr><td>1.</td><td>AG 084 Crop Production:</td><td>2 sections:</td><td>25 – 30</td><td>fall semester</td></tr>
<tr><td>2.</td><td>AG 096 Ag. Internship:</td><td>1section:</td><td>20 – 30</td><td>summer</td></tr>
<tr><td>3.</td><td>AG 088 Landscaping:</td><td>2 section:</td><td>25 – 30</td><td>fall semester</td></tr>
<tr><td>4.</td><td>AG 092 Poultry Production:</td><td>2 sections:</td><td>25 – 30</td><td>spring semester</td></tr>
<tr><td>5.</td><td>AG 094 Farm Management:</td><td>2 sections:</td><td>25 – 30</td><td>spring semester</td></tr>
<tr><td>6.</td><td>AG 086 Micro-Propagation:</td><td>1 sections:</td><td>25 – 30</td><td>spring semester</td></tr>
<tr><td>7.</td><td>AG 090 Food Processing:</td><td>2 sections:</td><td>25 - 30</td><td>fall semester</td></tr>
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</td></tr>
<tr><td>Program faculty</td><td>Part time faculty
1. Engly Ioanis
B.S. in Agriculture
M.S. in Animal Science</td></tr>
</table>

2. Kadalino Lorens
B. S. in Agriculture
MS in Ag. Economics

3. Totoa F. Currie
A. S. in General Agriculture
B. S. in Crop Protection

Program outcome analysis

Data from fall 2008 – Spring 2011

Years	**F/08**	**Sp/09**	**S/09**	**F/09**	**Sp/10**	**S/10**	**F/10**	**Sp/11**	**Total**
Program enrollment	8	10	13	33	32	24	71	78	264
Graduation rate				2%	3%		32%		
Average class size	10	15	15	20	28	25	30	30	25-30
Students' seat cost									
Course completion rate				1	2	1	6		
Students' satisfaction rate									
Employment data: tracking					Chuuk CES: 1	PNI. Agri.: 1		SPC:1	
Transfer rate									
Program's student learning outcome									
Student's learning outcomes for program courses	Average: 4.5	Average 4.4		Average 4.5	Average 4.8		Average 4.8	Average 4.8	

Discussion of findings

Demonstrate an overall knowledge of the crop production process,

2. Practice good agricultural management and marketing skills,

3. **Identify and demonstrate the fundamentals of food processing, preparation techniques, the relationship between the scientific principle and cooking procedures**

4. Identify and demonstrate the basic skills and principles of swine and poultry production techniques, including breed selection, feed, housing, management techniques and animal health

5. **Apply the basic skills and knowledge of nursery micro-propagation practices, transplanting, harvesting, and maintenance**

6. **Identify the proper use of land for agriculture purposes, local ornamental, and turf management.**

The existing program learning outcomes meet some of its requirements but there should be modification that needs to be

	added to the program outcome. Some courses are not explained well in the SLO. Some courses need modifications to meet the SLO. *Such courses are: ESL 050, AG 084, AG 086, AG 088, AG 090 and AG 092.*
Recommendations:	**Recommendations for requested courses** 1. ESL 050: The required technical English needs to be modified to meet the need of the program. Preferred a higher English level to suit the program. Most of the students have tough time reading science books. Agriculture is an applied science. Most of the works used in this program are not easy to comprehend by students who completed ESL 050. To better equip students for the AS degree or work force the program needs a higher English level. 2. AG 084 Basic Crop production: Basic crop production is missing certain areas that are very important in crop production. Crop production should have crop protection as part of its curriculum. To farm you must understand the importance of dealing with problems such as insect and disease control. Those areas go hand in hand. If this is added then AG 084 will align with AG 101 Introductory to Agriculture. 3. AG 086 Micro-Propagation: This course is really hard for the level of students that we get in the AFT certificate. The language that is used and the lab materials that are needed for this class are expensive. We have no lab for students to actually practice what is required by the course and so we do not meet the SLO for this particular course. I recommend that we modified this course and change its title to Greenhouse management. 4. AG 088 Landscaping: The landscaping class should have a lab to suit the SLO. For students to better understand and learn the concept of landscaping we should have a lab. Recommendation to turn this course into a 4 credit course (lecture with lab). 5. AG 090 Principles of Food Processing: This class needs to add a lab so that students can practice processing food. 6. AG 092 Swine and Poultry Production: Recommendation to evaluate the book submitted to curriculum committee for review.