



## **AIC Report**

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**Department of Food Science & Technology  
Abdul Wali Khan University, Mardan**

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**Criteria for Agriculture Degree Program Evaluation**  
**Food Science & Technology B.Sc. (Hons) 2014-15**

Sr. No.	Criteria	Points Assigned	Points Awarded
<b>A. Major Criteria</b>			
1	Strength and Quality of Faculty	250	100
2	Curriculum Design and Development	150	100
3	Infrastructure and Learning Resources	200	95
4	Students Support and progression	100	40
<b>Sub - Total (A)</b>		<b>700</b>	<b>335</b>
<b>B. Minor Criteria</b>			
5	Research and Consultancy Activities	150	80
6	Governance and Leadership	100	60
7	Recent Innovations and Best practices	50	25
<b>Sub - Total (B)</b>		<b>300</b>	<b>165</b>
<b>Grand Total (A+B)</b>		<b>1000</b>	<b>500</b>

(Five hundred only)

**50%**

\_\_\_\_\_  
Name and Designation

\_\_\_\_\_  
Signature of Program Evaluator

## **EXECUTIVE SUMMARY**

Abdul Wali Khan University Mardan was established in 2009 in Mardan city of KPK. The department of Agriculture started work in 2010 which was earlier located in Ambar village of district Swabi. After the announcement of Swabi University this department was shifted to Shankar campus of AWKUM. This year (2015) it is once again transferred to a new beautiful campus of Garden campus of AWKUM situated near the Nowshera interchange of Peshawar-Islamabad motorway.

The present strength of students in Agronomy, Horticulture and Food Science and Technology is 12, 12 and 3 respectively. Thus minimum number of students have opted for FST culminating with student-teacher ratio of 1:1. This first batch of 3 students is studying in sixth semester and enrolled five courses.

There are only three faculty members consisting of one Ph.D. assistant professor on TTS and two temporary lecturers/administrators with negligible teaching experience. This indicates that FST is a very weak program not only in terms of strength but also quality of faculty.

The food science discipline has been started with limited facilities although it has been accommodated in new modern building of the new campus. Although the students are studying courses on confectionary and bakery etc. there is not even a signal FST Lab. equipped with Food processing equipment and tools. One large room in the new building has been earmarked as central Lab. where unpacked equipment is lying.

The discipline is operational without any prescribed text books and reference books. There are only 3 text books on FST out of 81 provided in the SAR of the discipline. Very little reference and research material was available with the HoD.

The AIC viewed that FST degree program has been initiated without the proper availability of faculty, good infrastructure as well as teaching learning resources and facilities. Not to speak of minor criteria, the program does not even meet any of the four major criteria of external assessment and accreditation. Thus, it was rated in category 'Y3' of evaluation and assigned a score of 50 percent with the suggestion to revisit the program after one year.

## **CRITERION WISE ANALYSIS**

### **Strength and Quality of Faculty**

The total faculty staff in food science discipline was 2. One is PhD qualified and working on the post of assistance professor TTS, 1 is visiting lecturer M.Sc. (Hons) FST and one demonstrator M.Sc. (Hons) FST. They are handling overloaded teaching work both of theory and practical. More qualified faculty is needed to run the degree program successfully otherwise the discipline will produce poor quality of graduates. In future the discipline must increase the number of students so to increase the students' teachers' ratio.

### **Infrastructure and learning resources**

The food science students are using central lab of the department. However separate labs are to be provided to this discipline one for food processing and other one for food analysis. The numbers of books shown in the syllabus must immediately be purchased. The standard of library and labs facilities are to be improved so to start M.Sc. (Hons) degree program on the campus otherwise the undergraduates students after passing the B.Sc. degree will be in difficulty for getting admission in M.Sc. study and will rush towards other universities of the province which are already unable to accommodate its own graduates for M.Sc. (Hons) study.

### **SWOT Analysis**

#### **Major Strength**

- Curriculum of B.Sc. (Hons) FST is as prescribed by HEC.

### **Major weaknesses**

- Acute shortage of regular and senior faculty with tangible teaching experience.
- Non availability of food science Lab. including food processing, food analysis and sensory evaluation.
- Not even a signal prescribed text book is available except three books related to FST.
- Grossly inadequate faculty offices with insufficient facilities.
- The building of agriculture department is presently without any seminar room, committee room and a small library.
- Limited facilities for students study tours and trips to food industries etc.
- Student's assessment system is inappropriate and need substantial improvement.
- Need for promotion of extracurricular activities.

### **Major Opportunities**

- Local communities can get advisory help for preserving food.
- More jobs opportunities are available for graduates in food industries home and abroad, five stars hotels, restaurants, research institutes and food quality control agencies
- Enhance linkages with national food industries to create jobs for graduates.
- Extend the services of Food Quality Analysis Lab towards food industries as well as government & private agencies involved in food quality inspection.

### **Major Challenges**

- Specialized faculty required for core courses such as food engineering, food microbiology, cereal technology and milk technology.
- Exposure of students to stakeholders industry and research Institutes.
- Efforts are needed to convince food industries to financially support internship students of B.Sc. (Hons).
- The university should provide separate labs to the food science otherwise they will produce poor standard graduates. .

### **Actionable Recommendations**

- Immediate induction of at least 3 PhD and 2 M.Sc. (Hons) qualified and experienced faculty.
- Immediate purchase of all relevant tools, utensils and containers for food processing practical.
- More new latest books and journals and equipment are required.
- The discipline must immediately buy food science books from NIFST UAF written by Prof. Dr. Javid Aziz Awan and other faculty of the institute. These books are not costly but very useful books for food science students.
- The food science discipline may be upgraded to full-fledged teaching department.
- Students should be trained in course practical so to work in food industries successfully.
- The university should encourage food science faculty and students to attend seminars and conferences arranged by other Institutes.
- The discipline should also encourage linkages with other food science departments of the country to take advantage of the practices they have adopted for the improvement of education in their own institutions.
- Study tours for students are to be arranged to visit food industries.

### **Final Recommendation**

The AIC viewed that FST degree program has been initiated without the proper availability of faculty, good infrastructure as well as teaching learning resources and facilities. Not to speak of minor criteria, the program does not even meet any of the four major criteria of external assessment and accreditation. Thus, it was rated in category 'Y3' of evaluation and assigned a score of 50 percent with the suggestion to revisit the program after one year.

**Annexure-I****Strength of Faculty**

<b>Discipline</b>	<b>Faculty</b>	<b>Qualification</b>	<b>Job type</b>
Food Science & Technology	1 Assistant Professor	PhD	TTs
	1 Lecturer	M.Sc(H) FST	contract
	1 Demonstrator	M.Sc(H) FST	Contract

**Annexure-II****Strength of B.Sc (Hons) FST Students in 2015**

6 <sup>th</sup> Semester	Final 8 <sup>th</sup> Semester	Total students
3	nil	3
	This is the first batch of B.Sc(H) degree program.	

**Annexure-III****Total classrooms, labs, books and equipment**

<b>Classrooms and labs</b>	<b>Equipment</b>	<b>Equipment demanded</b>	<b>No of books Available</b>	<b>Projects</b>
1 +1				Nil
<b>Equipment list:</b> (1) Microscopes (2) magnetic stirrers (3) Incubators (4) electronic balanes <b>Books List:</b> (1) Analytical Food chemistry (2) Food microbiology (3) Dough Rheology and baked product texture (4) Fish processing technology				