7.2. TITLE OF THE PRACTICE:

ESTABLISHMENT OF UGC-SPONSORED AND BOARD OF PRACTICAL TRAINING, MoE, GOVERNMENT OF INDIA ENDORSED BACHELOR OF VOCATION (B.VOC.) COURSE AND APPROVAL OF MASTER OF VOCATION (M.VOC.) COURSE (PIONEER IN WEST BENGAL)

OBJECTIVES

Asutosh College has a long history of providing quality education and training, not only through Degree courses of the University of Calcutta, but also in job-oriented training. In this pursuit the college established the Asutosh College Training Centre in the Platinum Jubilee year (1991) of the institution. Various disciplines in this centre have created innumerable students who now successfully serve in various fields of industry and service. To further extend this effort, the college decided to play a role in helping the student community with newer job-oriented courses, as recommended by the UGC and approved by Board of Practical Training (Eastern Region), Ministry of Education, Department of Higher Education, Government of India, by establishing the autonomous Community College and also by starting the Bachelor of Vocation (B.Voc.) curriculum under the University of Calcutta. Recently, in 2020, UGC also sanctioned M.Voc. for both Software Development and Industrial Aquaculture and Fisheries courses and presently we are in a process to start the course with due guidance from University of Calcutta and Higher Education Departemnt, Govt. of West Bengal.

THE CONTEXT

In 2014, the University Grants Commission came up with proposals inviting colleges to develop career-oriented courses under the Community College scheme and B.Voc. system. It was just at that time the college authorities were thinking of expanding service towards the society with more job-oriented courses. It was decided to move forward with the proposals and the faculty members did not waste a moment in framing the project reports required for applying for Community College and B.Voc. Curricula in the college. The College applied to UGC for courses in Mobile Communication and Software Development under Community College system and courses in Software Development and Industrial Aquaculture and Fisheries under the B.Voc. system. Both the proposals were accepted by the UGC after interface meeting enabling the college to move forward in initiating the curricula as soon as the grant-in-aid was received.

THE PRACTICE

The courses were designed in consultation with the experts in the respective sectors of the industry. We approached the relevant industrial groups through the MCC Merchant Chamber of Commerce and Industry, Kolkata. The Industry house readily became our partners in the endeavour and extended their full-fledged support to us.

The University also endorsed the courses designed without any modification and agreed to start a B.Voc. course under its umbrella. We became the first college and only college under the auspices of the University of Calcutta to start such course. We are among the first few colleges in the state of West Bengal involved in similar activities. In the academic session of 2014 itself

we started the academic activities of these courses in our sprawling second campus at Bhasa, South 24 Parganas.

Recently, in 2020, UGC also sanctioned M.Voc. for both Software Development and Industrial Aquaculture and Fisheries courses and presently we are in a process to start the course with due guidance from University of Calcutta and Higher Education Department, Govt. of West Bengal. But due to COVID pandemic situation, the process got delayed. The college authority is expecting to start this course in 2022-2023 session.

EVIDENCES OF SUCCESS

Our aim with regard to the Community College and B.Voc. courses is to attract students who need to be in the industry as professionals or entrepreneurs to meet the financial demands of their families and realise their own ambitions. In the first year of the course we were successful in attracting students from this segment of the society and the courses soon spread their wings. The classes are held regularly in the newly-built classrooms in the second campus. We are getting active teaching support from the specialists deputed by the Industry partners. We have already developed the basic laboratories required. We are also successfully using the waterbody in the second campus as a field laboratory for the aquaculture course.

PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED

- The course is designed to run with active partnership from the industries. This is a new way of teaching we are experiencing and so quite expectedly some lacunae are there in the process we follow in communicating with the industry. We are continuously monitoring the relationship, finding our communication gaps and trying to fill them up for the smooth running and betterment of the teaching-learning system.

- We have already developed the basic laboratories to meet the minimum requirement of teaching-learning. But the constant change and upgradation of technologies demand more sophisticated laboratories that can adapt the modifications in technologies into the training we also need a workshop of our own.

- This requires more funding which is currently unavailable with us. Therefore, a fear of stagnation haunts us. If such constantly changing laboratories are unavailable then we fear that in due time the courses may lose their relevance. The course contents also need regular revision to include the non-stop changes in the technology.

TITLE OF THE PRACTICE:

AQUACULTURE AND INTEGRATED FARMING PROJECT

OBJECTIVES

Aquaculture and Integrated Farming is a multidisciplinary approach of agriculture where along with fish culture, live stock or other agricultural crops are cultivated. Integrated Farming System (IFS) is an interdependent, interrelated often interlocking production systems based on few crops, animals and related subsidiary enterprises in such a way that maximize the utilization of nutrients of each system and minimize the negative effect of these enterprises on environment. This multidisciplinary approach of agriculture has made revolution to the fish farmers who have small land holding/including a pond. Earlier, fish culture limited to a pond gave a small return. But integrated approach has enabled the fisherman to increase not only the aquaculture production from such small land in terms of fish but also production from live stock and other vegetable crops. And this has enabled the farmer/fisherman to earn more money from a single unit.

THE CONTEXT

The Project started working under leadership of Dr. Dipak Kumar Kar, the Principal of the College from 2009. The principal objectives of the project were

- To represent it as a model to the students of Fisheries Science.
- To generate revenue for the college by optimum utilization of resources.
- To augment the aquaculture production.
- To increase the Agricultural production from small land holding.
- To maintain the pond bank clean and stable though the cultivation of agricultural crops throughout the year.
- To utilise the vegetable crops produced throughout the year for the Hostel students, which are provided to the students at subsidised rate.
- To obtain eggs from the duck to be utilised for Hostel students.
- To earn revenue from selling fish.
- To cultivate several varieties of winter vegetables and summer vegetables

THE PRACTICE

The basic practice and principles of IFS is dependent on following parameters:

- **Productivity**: one of the main benefits of maintaining IFS, to increase yield of different components in terms of per unit area or per unit of cost involved with it.

- **Profitability**: by utilising each other by-product as a raw material of other components reduce cost of cultivation/maintenance as well as enhancing soil fertility for sustainable production, leads a higher BC ratio by managing waste of by-products and full utilization of investment.
- **Potentiality or Sustainability**: In long term aspects, by linking of different components act as organic supplementary through effective utilization of available resources, provides an opportunity to regain potentiality of production.

- **Environmental Safety**: Effectively recycling of waste material as others raw materials through IFS models, thus minimize environment pollution.
- **Recycling**: In IFS, Effective recycling of waste material (crop residues and livestock wastes) helps to make a farm self-sufficient in terms of avoiding outside inputs – fertilizers, agrochemicals, feeds, energy, etc.
- **Employment Generation**: IFS provide enough scope to employ family labour round the year. By combing different enterprises would increase the labour requirement significantly and would help in reducing the problems of underemployment to a great extent.
- **Agro-industries**: When one of produce linked in IFS are increased to commercial level there is surplus value adoption leading to development of allied agro-industries.
- **Increasing Input Efficiency**: IFS provide good scope to use inputs in different component greater efficiency and benefit-cost ratio.

EVIDENCES OF SUCCESS

The pond at Asutosh College 2nd Campus measures about 7.5 bigha in area. Initially, the pond was not created for fish culture but created for earth filling of adjacent low lands by the sellers of the land. Hence the pond cannot be considered as a true fish culture pond due to its high depth. In spite of these shortcomings, the fish culture operation along with crop cultivation, duck culture etc are successfully going on in the Asutosh College 2nd campus. Fish culture operation is done on the basis multiple stocking and multiple harvesting methods. Fingerlings of Indian and Exotic major carps are released in to the pond after harvesting and extensive method of fish culture is being practised here. Duck is simultaneously cultured with low expenditure as maximum feed of duck is obtained from the pond. Different crops are grown at the pond bank depending upon season. The ultimate objective of this practice is to maximize the yield of all component enterprises to provide steady and stable income along with the rejuvenation of system's productivity and achieve agro-ecological equilibrium.

The global pandemic and subsequent prolonged ‘lockdown’ compelled the authority to re-think and re-structure the plans of expansion and improvement. All research activities (as far as practicable) and vocational courses were carried out on the online mode. For the period 2020-2021 not much expansion or improvement plans could be executed and the activities and plans which had been formulated below were all carried out on the online mode. The plans had to be deferred till the forthcoming session of 2021-22 as well as 2022-23.