

COLLEGE OF FISHERIES
Maharana Pratap University of Agriculture and Technology
UDAIPUR-313001



Mission:

College of Fisheries, MPUAT, Udaipur committed to provide quality education in fisheries to undergraduate and post-graduate students through teaching and research with special emphasis on practical/experiential learning.

Vision:

- Introduction of modern teaching methods with major emphasis on experiential learning.
- Initiation of Diploma and Certificate courses in fish production, breeding of ornamental fish, value addition to fish products etc.

Community service:

- Developing action plan for implementation of code of conduct for responsible fisheries
- Increasing awareness on conservation, biodiversity and endangered species
- Developing community based enterprises for conservation and development.
- Producing skilled fishers in the tribal sub-plan area of Rajasthan.

Human Resource Development:

- Effort will be made to increase the staff strength from the present 06 to 12 which helps to meet mandate standards in teaching, research and extension.
- “Inbreeding” will be avoided by suitably formulating guidelines not to allow a student to get all 3 degrees from one institute.
- Alumni interaction will be promoted.

From Dean's Desk:



Rajasthan has 4.23 lakh ha area under fresh water besides 30000 ha area as river and canals, 80,000 ha water-logged and 1.80 lakh ha salt affected areas at full tank level. About 16500 farmers and fishers are engaged in fisheries related activities. The fish production potential of the state is 90,000 MT per year and as such there is a scope for three times increase in fish production. The present low fish production is mainly due to the unavailability of quality seed, poor extension network; shortage of technical and qualified staff in the state fisheries department.

The systematic development of fisheries professionals was lacking in the state till the last decade. Looking to the need of the hour the erstwhile Department of Limnology and Fisheries, under Rajasthan College of Agriculture was upgraded to the status of College of Fisheries in November, 2003 under the aegis of Maharana Pratap University of Agriculture and Technology, Udaipur. The college has received formal approval of the state Government in April, 2010 with the grant of Rs. 4.00 Crore under the RKVY scheme from the State Government, mainly for the development of infrastructure. The college has developed adequate infrastructure and essential laboratory equipment.

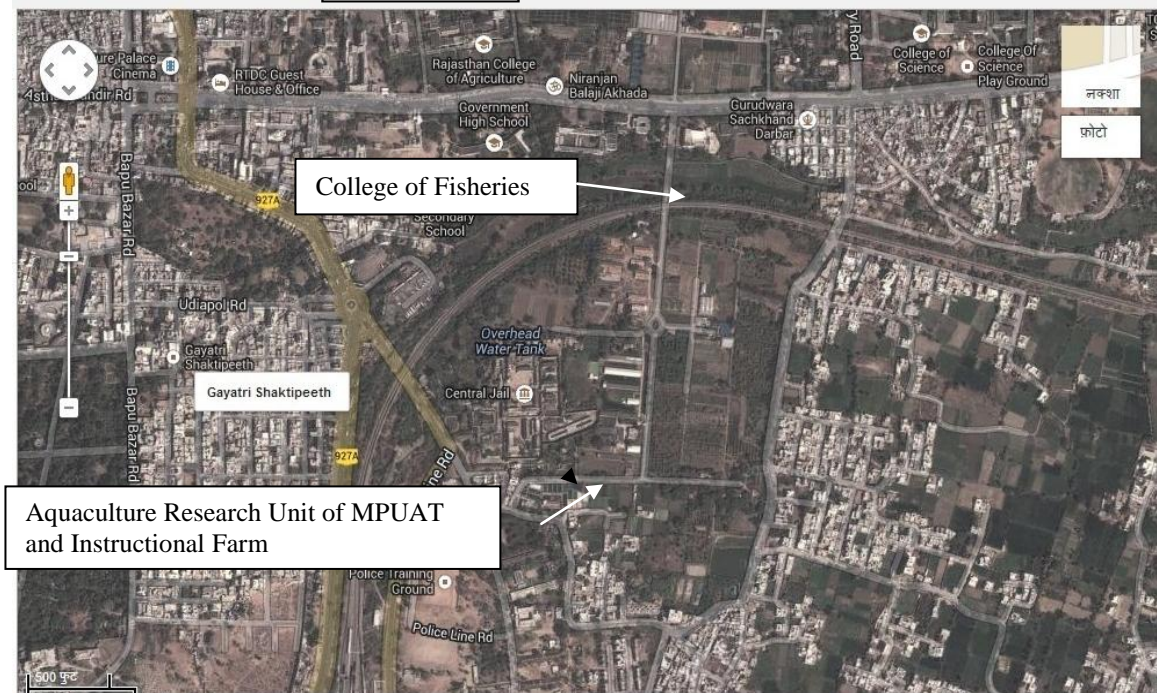
In order to make higher agricultural education relevant to present day needs, produce graduates with entrepreneurial skills for self-employment and contributors of rural livelihood and food security need it was felt for reorienting agricultural education of the country in view of globalization and development of new technologies. In line with IV Deans' committee recommendations syllabus was reoriented in Oct., 2010, Academic Council of MPUAT also approved creation of four new Departments viz., Dept. of Fisheries Resource Management, Dept. of Harvest and Post Harvest Technology, Dept. of Aquatic Environment and Dept. of Basic Sciences along with the existing Dept. of Aquaculture. These departments are headed by a qualified and experienced faculty to provide quality education.

The college has a motto and goal to provide professional education in aquaculture and enhance knowledge in the field of fisheries with scientific information for exploitation and management of fisheries resources in Rajasthan and to popularize various concepts of aquaculture to the rural and urban masses. To achieve the objectives of the College viz., To provide quality education; To develop trained human resource and to Promote entrepreneurship in aquaculture and fisheries; To make innovations in teaching methods with efforts for skilful learning and institutional linkages; To promote need based research to cope with environmental challenges and, To make available technically qualified fisheries professionals, the college is continually doing its hard efforts with meagre faculty. The efforts of the college are bestowed with the dynamic leadership of our learned Vice-Chancellor, guidance of our ex-faculty and inter institutional linkages with leading institutions of the nation e.g., ICAR, CIFE, CIFT, CIFRI, NBFGR, FSI etc.

Dr Omprakash Sharma
DEAN

Campus location:

The main campus is located in the heart of Udaipur City at Surajpole-Airport Road.



Departments and Infrastructure:

1. Department of Aquaculture:

The Department of Aquaculture being the oldest is the only P.G. Department. It offers B.F.Sc., M.F.Sc. (Aquaculture) and Ph.D. (Aquaculture) degree programmes. The Department has U.G. and PG laboratories, smart class room cum seminar hall, Aquaculture Research cum Instructional farm. The laboratories are fully equipped with a number of sophisticated instruments such as Water quality monitoring system, Automatic Nitrogen analyzer, Inverted and Stereoscopic microscope, incubators, Photo-micrographic equipments, Pulverizer, Hot air feed drier, Flame photometer, Bomb calorimeter, Moisture meter, Field camera, Microbalances, Muffle furnace, Haematocrit and refrigerated centrifuge, Molecular Genetics Laboratory which is well equipped with advanced equipments (i.e., RT-PCR, DNA- Sequencer, Gel documentation system, Nano-drop spectrophotometer etc). The Mobile Aquaculture Health and Fisheries lab cum survey vehicle is equipped with advanced automatic water and soil analysis facilities. The modern research cum instructional farm has D-85 type and Chinese hatchery, catfish hatchery and ornamental fish breeding unit. Outdoor and indoor facilities for fish rearing include 35 nursery ponds and two brood fish ponds. Survey equipments viz. Staves, dumpy levels, compass survey, chain survey and plan table survey equipments.

2. Department of Aquatic Environment:

The Department has well equipped laboratory for study of aquatic environment such as Water quality monitoring system with sensing probes for pH, EC, temp., DO meter, Eco-sounder, GPS, Current meter, inverted and stereoscopic microscope, Spectrophotometer, incubators, BOD incubator, Digital electronic balance, Digital camera, Distillation apparatus, Planimeter. Besides this a number of limnological equipments and water samplers such as Shallow water sampler, Nansen reversing bottle, Vandron's sampler, Dredges, Core, Current meter, Ooze sucker, Sacchi disc, Turbidity meter etc are also available in the departmental laboratory for UG students and research laboratory for PG students.

3. Department of Fisheries Resource Management:

The Department of Fisheries Resource Management has UG lab and museum to display a variety of freshwater and marine aquatic animals. It has specimens, models, slides and Bio-visual charts to fulfill the students need.

4. Department of Basic Sciences:

Department of Basic Sciences offers courses related to Biochemistry, Microbiology, Disaster Management in Fisheries, Meteorology and geography, Information and Communication Technology, Statistics, Extension, Economics, Financing and Marketing Management, Entrepreneurship Development and Communication Skills

and Fisheries Administration and Legislation. It has one UG lab equipped with Autoclave, Laminar Air Flow Bench, Spectrophotometer, Electrophoresis Unit, UV Trans-illuminator, Soxhlet Apparatus, Vortex Mixture and Incubator. All major Bio-visual charts related to these subjects are available in this Department.

5. Department of Harvest and Post Harvest Technology:

The Department of Harvest and Post Harvest Technology has two well equipped processing labs housing Double Seamar, Rotary flat can Body Reformer, Round Can Body Bearer, Can Flanger, Canning Retort, Straight-line Exhaust Box, Storage Tank For canning, Blast Freezer, Retort Pouch parking Machine, Tray Dryer, Lab Incubators, weighing balance, Bottle washing Machine, Plastic bag sealing Machine, Air curtain, Food Processor, Induction cookers, Chimney, Microwave oven with convection, deep Freeze, Laminar flow, Hot air oven etc. The department also has a well established craft and gear museum.

Library

The library has a collection of over 4000 books, technical reports, thesis, periodicals and technical reports. The library is facility for online access to national and international journals.

Staff of College of Fisheries:

0294-2421753 (O), Fax: 0294-2421753

DEAN:

The Dean is the administrative and academic head of the College.

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Sh. Subhash Chander Joshi, SO (Acctts.)

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Academics:

a. Academic Programmes:

Programme	Duration
UG	
I. B.F.Sc.	Four years
PG	
M.F.Sc. (Aquaculture)	Two years
Ph.D. (Aquaculture)	Three years

b. Basis for admission:

	UG	PG (M.F.Sc.)	Ph.D.
Qualifying Examination	10+2 in Ag/Sc.	B.F.Sc.	M.F.Sc. (Aquaculture)
Entrance Examination	Merit	Merit + Interview	Merit + Interview
Others	ICAR nominee	ICAR nominee	-

c. Reservation:

Category	Percentage of Reservation in UG	Percentage of Reservation in PG (M.F.Sc. & Ph.D.)
General	50	50
SC	16	16
ST	12	12
OBC	21	21

SBC	01	01
Other PH	03	03
Girls	33% in each category	33% under roster system

Sports and physical education:

Facilities available	Equipment and Infrastructure
Indoor and outdoor games	Indoors: Table tennis, Wrestling
	Outdoors: Volley Ball and Kabbadi, other facilities shared with University Sports Board.
Exercise facilities	A well equipped gymnasium

Instructional Farm:

The College has an instructional farm-cum-hatchery unit. It is mainly for practical training and research in freshwater aquaculture. There is also a field laboratory and training room attached to the fish farm. The farm is moderately equipped for the breeding and rearing of carp and ornamental fish. A brood fish pond is also located near fish farm.

Aqua-Gallery

For creating awareness in masses about aquatic creatures and for aquatic environment education, an Aqua-Gallery has been setup by the College. This gallery attracts civilians, youth and school children in sizable number.

Publication

The faculty members of the college have published more than 300 research papers in the journals of national and international repute. Besides this, the faculty has also published ten books, eighteen manuals and several leaflets on fisheries extension and popular articles on fish culture.

Achievements

Under various research programmes, COF has significantly contributed in the field of reservoir limnology, freshwater aquaculture, aquatic toxicology, fish nutrition, culture of fish food

organisms, waste recycling in aquaculture etc. The salient achievements of the College are as under:

- Designed and fabricated five types of water sampling devices useful for limnological research.
- For the first time bred local carp *Labeo gonius* in captivity using induced breeding technique.
- Conducted extensive limnological survey of several water bodies of Rajasthan for assessing their trophic status, primary productivity and water quality.
- Under UNICEF / SWACH project developed a field kit for checking potability of drinking water in the rural areas.
- For eradication of dracunculiasis (Guinea worm) in the Tribal Sub-Plan area, 5 types of water filters were designed. One of these designs was accepted and adopted by the UNICEF / SWACH for dissemination in tribal area. 1 million funnel filters were distributed among tribals by SWACH/ UNICEF.
- Conducted study on the exotic carp *Oreochromis mossambicus* in Lake Jaisamand for suggesting necessary measures for its control.
- Utility of selected organic wastes viz., cattle dung, night soil, sewage effluents, sludge and agro-industrial wastes for the production of live fish food organisms has been worked out.
- Under mass employment generation through science and technology (MEGSAT) programme of DST, Govt. of India, several training programmes on ornamental fish culture and breeding and fish farming have been organized.
- Under nutrition research activities, the department of Aquaculture has worked out suitable agro-wastes and their quantities for use as the supplementary diet of fish.
- Nutritional potentialities of unconventional cereals such as small millet and sorghum were evaluated as supplementary feed in fish nutrition.
- Designed a simple device for measuring live weight of aquatic invertebrates under field conditions.
- The College has so far screened several herbs namely Safed and Kali Musli, Mulethi, Chandrashoor, Shatavari, Ashwagandha, Bala, Lotus root, Gokhru and Makhana for ascertaining their utility as growth enhancer and stimulant for gonadal development for the fish with encouraging results.
- Department of Aquaculture has successfully organized a User's Workshop on DST Project on Limnology of Berach River System sponsored by the DST, Govt. of Rajasthan, Jaipur.
- A training programme for the PHED engineers on water quality assessment was organized.

- Eleventh National Symposium on Environment was organized at Udaipur (5-7 June, 2002) in collaboration with BARC & BRNS which was sponsored by the Department of Atomic Energy, Govt. of India.
- A short course sponsored by ICAR, New Delhi on Advances in Applied Limnology for the Management of Inland Waters was organized during February 5-14, 2003.
- A 21-days winter course on Advances in culture and breeding of freshwater ornamental fish and aquarium management was organized from February 08-28, 2005.
- For the eradication of water hyacinth from Udaipur Lakes, College of Fisheries designed a conveyor belt which successfully harvested ten thousand MT of the weed in a record period of 15 days to clear 33 hectares of weed infestation.
- Cage culture of Indian major carp in Lake Jaisamand in association with State Fisheries Department and Rajasthan Tribal Areas Development Cooperatives Federation Ltd., Udaipur was successfully attempted with encouraging results.

Our Priorities

Research

- Carp and prawn production potentialities of different water systems.
- Development of carp and prawn culture technology for micro watersheds.
- Low cost nutritionally balanced diet for fin fishes.
- Survey of aquatic biodiversity.
- Fish culture as a component of integrated farming system.
- Development on low cost carp seed production and rearing technology.
- Technology for fisheries management particularly for small and medium sized reservoirs.
- Use of selected herbs in the carp diet for promoting somatic growth, gonads and disease resistance.
- Carp diseases in capture and culture systems
- Developing regional technology for aquarium fish culture and breeding.
- Studies on productivity and limnology of inland waters.
- Assessment of aquatic pollution and its impact on flora and fauna.
- Refinement of seed rearing technology in small village ponds.

Extension

- Fast dissemination of available aquaculture technology at grass root level through appropriate extension programmes.
- Socio-economic upliftment of tribal fishers of Rajasthan through skill development in aquaculture and fisheries sectors.