ACADEMIC CALENDAR

(2022-23 BATCH)

This document is prepared, edited, updated and reproduced from the UG Academic Regulations of TNFU in a simple manner for the benefit and convenience of the undergraduate students.

– A Students Handbook

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TNJFU

Compiled by

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Dean
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Student's Coordinator (2022-23 batch)
Dr. K. Masilan
Student's Counsellor (2022-23 batch)

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Affix passport size photo

I. Personal Data Sheet

Name of the Student

……..

I.D. No

……

Course of Study Batch Year & Semester

……. ……. ……..

Name of the College

TNJFU - Dr. MGR Fisheries College and Research Institute, Ponneri Campus

Date of Birth Blood Group Hosteller/ Day Scholar

…… ……. ……..

Permanent Address

……

……

……..

Contact No. Email Address Aadhar No.

…… ……. ……..

Signature

Mrs. Nimish Mol Stephen
Students Coordinator

Dr. K. Masilan
Students Counsellor

Profile of College

II. Brief Profile of Dr. MGR FC&RI, Ponneri

Background

Tamil Nadu Fisheries University (TNFU) was established in 2012 in Nagapattinam district by the Government of Tamil Nadu based on TNFU Act, 2012. The then Chief Minister of Tamil Nadu Selvi J. Jayalalithaa declared open this institution as the Institute of Fisheries Technology, Ponneri on 20.02.2013.

The Government of Tamil Nadu permitted (G.O. No.151 dated 25.07.2014) the Institute of Fisheries Technology, Ponneri to start the B.F.Sc. (Bachelor of Fisheries Science) Degree course from the academic year 2014-15 with an initial student strength of 20. The Institute of Fisheries Technology, Ponneri was then renamed as Fisheries College and Research Institute, Ponneri based on G.O.Ms.No.89 dated 23.4.2015. The Government of Tamil Nadu then permitted to increase the strength from 20 to 40 numbers through its G.O.(Ms) No.166 dated 12.08.2015. The Board of Management, TNFU, Nagapattinam later increased the strength from 40 to 60 in the academic year 2016-17 at this Institution (U.S.O.No. 256/Estt/TNFU/2016; Rc.No. S1/CA-7/ TNFU/2016). Total sanctioned student strength is 210 (UG – 170, PG – 40)

Curriculum

- B.F.Sc degree is a four years degree programme in fisheries science with ICAR common syllabus
- Course comprises of 180 total credit. Of which, 140 credits earmarked to impart courses in 6 semester, 20 credits for Experiential Learning Program (ELP) in 7^{th} semester, and 20 credits for In- Plant Training (IPT) and All India Study Tour in 8^{th} semester

Scholarship

Government Scholarship, University Scholarship and other scholarships are available for the undergraduate students (*Please refer Chapter V Scholarships*)

Job Opportunities

There are number of career opportunities available in the government and the private sector for the fisheries graduates. Aspirants can go for entrepreneurship or self-employment on their own in fisheries and related business. Both State and Central government have fisheries departments in which fisheries graduates are appointed in various posts. In addition, jobs are also available in various Central government agencies like MPEDA, FSI, NABARD, EIA, NIFPHATT, NFDB and fisheries research institutes such as CMFRI, CIBA, CIFA, CIFRI, CIFNET, DCFR, CIFT, CIFE, NBFGR for the fisheries graduates. The Fisheries Department of the Government of Tamil Nadu offers various technical and administrative positions for the fisheries graduates. The graduates are also employed in banks, insurance companies and inspection agencies. Aquaculture, Hatchery, Fish Feed and Fish Processing industries are the major opening sectors for the employment of the fisheries graduates.

Departments

The College has seven departments offering courses for the students viz.

1. Department of Aquaculture (DAQ)
2. Department of Aquatic Animal Health Management (DAAHM)
3. Department of Aquatic Environment Management (DAEM)
4. Department of Fisheries Resource Management (DFRM)
5. Department of Fish Processing Technology (DFPT)
6. Department of Fishing Technology and Fisheries Engineering (DFTFE)
7. Department of Fisheries Extension, Economics and Statistics (DFEES)

All the departments are having UG and PG research laboratories. The college has the following on campus facilities:

1. Instructional Fish Farm Complex
2. Post-Harvest Research and Incubation centre
3. Museum.

The college has two off-campus facilities

1. Advanced Research Farm Facility (ARFF) at Madhavaram
2. Pulicat Research Farm Facility (PRFF) at Pazhaverkadu

III. Teaching Faculties

1	Dr. R. Jeya Shakila	Dean	9443453184
Department of Aquaculture			
1	Dr. Cheryl Antony	Professor & Head	8754057391
2	Dr. S. Selvaraj	Assistant Professor	7904917583
3	Dr. V. Ezhilarasi	Assistant Professor	8754678309
4	Dr. Mahadevi	Assistant Professor	6380695395
Department of Fish Pathology and Health Management			
5	Dr. A. Uma	Professor & Head	9840084314
6	Dr. S. Saravanan	Assistant Professor	9677303496
7	Dr. D. Kaviarasu	Assistant Professor	9944486725
Department of Fisheries Biology and Resource Management			
8	Mr. P. Pavinkumar	Assistant Professor & Head i/c	8012868472
9	Mr. K. Karuppasamy	Assistant Professor	8825634995
Department of Aquatic Environment Management			
10	Dr. D. Manikandavelu	Adjunct Professor	6385665951
11	Mrs. S. Aruna	Assistant Professor & Head i/c	9080225543
12	Ms.B.R.Sona	Assistant Professor	9600290112
Department of Fish Processing Technology			
13	Mrs.Nimish Mol Stephen	Assistant Professor & Head i/c	9591809515
14	Dr.N.Muralidharan	Assistant Professor	9952231805
15	Dr.K.Masilan	Assistant Professor	7373444482
Department of Fishing Technology and Fisheries Engineering			
16	Mr. R. Velmurugan	Assistant Professor & Head i/c	7667662409
17	Mr.D.Arun Jenish	Assistant Professor	9489965397
Department of Fisheries Extension, Economics and Statistics			
18	Mrs. S. Agnes Daney Angela	Assistant Professor & Head i/c	9003918677
19	Dr. C. Lloyd Chrispin	Assistant Professor	9892619986
20	Dr. L. Surulivel	Assistant Professor	9566362894
Advanced Research Farm Facility (ARFF)			
21	Dr. K.Ravaneswaran	Professor & Head, ARFF	9444694845

IV. Important Contact Nos

Head of the Institution

Dr. R. Jeya Shakila	Dean	9443453184

Students Coordinators and Counsellor for I. B.F.Sc (2022-23 Batch)

Mrs. Nimish Mol Stephen	Students Coordinator	9591809515
Dr. K. Masilan	Students Counsellor	7373444482

Hostel Administration

Mr. R. Velmurugan	Warden	7667662409
Mr. D. Arun Jenish	Deputy warden – Boys Hostel	9489965397
Dr. V. Ezhilarasi	Deputy warden – Girls Hostel	8754678309

Students Association

Dr. Cheryl Antony	Vice– President	8754057391
Mr. K. Karuppasamy	N.S.S. Coordinator	8825634995

Library

Mr. M. Selvakumar	Library office	9500256450

Sports

Mr. D. Arun Jenish	Sports Secretary	9489965397
Mr. S. Soundarapandiyan	Physical Director	7010191078

Other Students Coordinators and Counsellors

Mrs.S.Agnes Daney Angela	IV. B. F. Sc Coordinator	9003918677
Dr. S. Selvaraj	IV. B. F. Sc Counsellor	7904917583
Dr. N. Muralidharan	III. B. F. Sc Coordinator	9952231805
Dr. S. Saravanan	III. B. F. Sc Counsellor	9677303496
Mr. R. Velmurugan	II. B. F. Sc Coordinator	7667662409
Dr. V. Ezhilarasi	II. B. F. Sc Counsellor	8754678309

V. Scholarships

Government scholarships

1. **BC/MBC/DNC Scholarship** of approx. ₹ 7,000/- per annum for period of four years. Students whose parents income is less than 2 lakhs per annum are eligible.
2. **BC/MBC/DNC (First graduate) Scholarship** of approx. ₹8,000/- per annum for a period of four years. Students whose parents' income is less than 2 lakhs per annum are eligible.
3. **SC/ST Scholarship** of ₹ 12,000/- per annum for a period of four years. Students whose parents' income is less than 2.5 lakhs per annum are eligible.
4. **SC/ST Higher Education Special Scholarship** ₹ 7,500/- per annum for a period of four years for hostellers only. Students whose parents' income is less than 2.5 lakhs per annum are eligble. Students who have availed SC/ST Scholarship are also eligible
5. **Central Sector Scheme** (CSS) of Scholarship of ₹ 10,000/- per annum for a period of three years and ₹ 20,000/- per annum for the fourth year. Students who have secured the cut off marks prescribed by the Government and whose parent's income is less than 6 lakhs per annum are eligible based on the merit. Students who have availed other scholarships are not eligible.
6. **C.M. Award** of ₹ 3,000/- as one-time payment for one girl SC/ST student and one boy SC/ST student, who have passed the Plus Two Board Examination with the cut off marks prescribed by the Government. Students who have got other scholarships are also eligible.
7. **Puthumai Penn Scheme** (Moovalur Ramamirtham Ammaiyar Higher Education Assurance Scheme) - a monthly monetary assistance of ₹ 1,000 to girl students, who are enrolling into higher education after completing Classes 6-12 in government schools

*Income limits as revised by the Government from time to time is applicable.

University scholarships

1. **Pattukottai Azhagiri Scholarship** of ₹ 4,000/- per annum for a period of four years. Two students who have secured the highest marks in the Plus Two Board examinations are eligible.
2. **TN- Agriculture Farmer Welfare Scheme Scholarship** of ₹ 4,850/- per annum for a period of four years. Students whose parents are farmers are only eligible. Farmer identity card obtained from Tahsildar and copy of the ration card are required.

Other scholarships

National Talent Scholarships of ₹ 2,000/- per month for a period of four years. Students who have secured NTS are eligible; however have to maintain an OPGA above 7.0 points in the B.F.Sc. course curriculum

Academic Regulations

VI. Academic Regulations

Duration of the Course

- The duration of the B.F.Sc. degree course is four academic years.
- Each academic year shall consist of two semesters
- An academic semester shall ordinally consist of 105 working days, excluding final theory examination days.

System of Education

- The pattern of instruction and evaluation is Semester system.
- Each course has specific course number, title and credit hours.
- Each course is a unit of instruction to be covered in a semester. Each credit hour represents one hour lecture or two hours laboratory or field practical demonstration each week in a semester.

Advisory System

- The students on their admission are assigned to teachers, who are designated as Co-ordinators and Counsellors by the concerned Dean of the College.
- Each student immediately after enrolment, fills up the registration card with the guidance of Students' Co-ordinator.
- The Co-ordinator will maintain a record containing particulars of the previous history of the student, courses registered, examinations appeared and grades obtained in each course.
- The Counsellor will establish and foster close personal relationship with the students during their entire stay in the College, by having periodical meetings at least once in a month either with the entire group of students or with each individual student to know their problems, review their study programme and take such remedial actions as may be necessary in consultation with the Teachers, Co-ordinator and the Dean.

Registration for the First Time

- The registration and orientation program held for a duration of 1–3 days.
- Students shall register for the first semester courses in person within 7 working days.
- Failure to register for the first semester courses before the prescribed date shall result in forfeiture of admission.

Registration of the course:

- Students shall register the course in the beginning of each semester within 7 working days.
- Registration shall be done without fine within the first 2 working days and with a fine of Rs. 100/- during the remaining 5 working days

Subsequent registration

At the beginning of each semester there will be registration for various courses listed under a semester. The student in each batch shall have to register for the set of courses offered in "toto" for the batch and fill in the registration cards. The coordinator in turn will countersign and send them to the Dean. From the current year e- registration is being adopted.

Duration and system of education

The duration of B.F.Sc. degree programme shall be normally four academic years including six semesters of course work. Seventh semester deals with Student READY (Rural Entrepreneurship Awareness Development Yojana) programme comprises of In-plant attachment, Rural Fisheries Work Experience programme and study tour. Eighth semester includes Student READY programme comprises of skill development programme, Experiential Learning programme, besides course work, project and seminar. The pattern of instruction and education in the University shall be "Semester course credit system".

i. **Academic year:** The academic year of the University shall ordinarily be from July to June (except in the case of year of admission) and shall consist of two semesters.

ii. **Semester:** A semester shall ordinarily consist of 105 working days. In addition, the final examination period shall not be reckoned as part of the semester.

iii. **Credit hours:** Each credit hour represents 50 minutes lecture or two hours of laboratory or field practical demonstrations each week in a semester.

iv. **Course:** A course is a unit of instruction or segment of subject matter (as specified in the course catalogue) to be covered in a semester. It has a specific number, title and credits.

v. **Grade point of a course:** It is a value obtained by dividing the percentage of marks earned in a course by 10. The grade point is expressed on a 10.00-point scale up to two decimals taking the third decimal alone into consideration.

vi. **Credit point of course:** The product of credit hours and grade point obtained by the student in a course.

vii. **Grade point Average:** It is the quotient of the total credit points obtained by a student in various courses at the end of each semester divided by the total credit hours taken by a student in the semester. The grading is done on a 10.00-point scale. The GPA is restricted up to the two decimals taking the third decimal alone into consideration.

viii. **Overall Grade Point Average (OGPA):** It is the quotient of cumulative credit hours obtained by the student in all the courses from the beginning of the first semester of the degree course divided by the total credit hours of all the courses the student had completed up to the end of a specified semester from the first semester. It determines the overall performance of a student in all courses taken during a period covering more than a semester.

Attendance requirements

- Every student shall ordinarily attend all classes in a course. Attendance in respect of the students for the first semester shall be reckoned from the first day of the commencement of semester. However, only for the students who are registering late due to late admission, attendance shall be reckoned from the date of their registration and this is only for the first semester of the first year UG programme.
- A minimum prescribed attendance in a course shall be 80%. The attendance shall be reckoned separately for theory and practical and a separate minimum under each category is required.
- A student who fails to put in, the minimum attendance in theory or practical shall not be permitted to appear for the final external theory examination and the registration for that course shall be treated as cancelled. The students shall have to re-register such courses and complete, when the course is offered in the subsequent semester.
- Dean may depute students on the recommendation of the Vice-President of Student Association/Sports Secretary, to represent the College/University at various functions such as NSS, Sports, Medical aid, etc. and the mandatory minimum requirement of attendance under these circumstances is 70%.
- A student who fails to put in a minimum requirement of 80% attendance because of sickness, the mandatory minimum may be reduced to 70% on the basis of medical certificate for hospitalization obtained from Government hospital or a private nursing home. Under extraordinary circumstances, the Dean shall be empowered to give exemption on medical reasons, only on the recommendations of the Students' Coordinator.
- Students absenting from classes by prior arrangements on official University business shall be given due consideration in completing attendance requirements and may be permitted by the Dean concerned to condone the deficiency.
- In ordinary circumstances, no student is officially deputed for university purposes, if the student fails to secure 70% attendance (exception on university business/ deputation, it is 60% attendance)

- Attendance register is maintained by the course teacher and the certificate to this effect is sent to the University by the Dean in the prescribed proforma at the end of the semester, to issue hall ticket for the final theory examination by the Controller of Examination.
- It is mandatory that students receiving scholarship shall up the attendance, as specified by the funding agencies but not below 80% attendance.
- Shortage of attendance particulars, if less than 70% shall be sent to the Controller of Examination prior to the issue of hall tickets.
- Students admitted in the first year, if fails to register the course of the first semester or failed to put in 80% attendance in all course, the admission stands cancelled, if prior permission is not obtained from the Faculty Dean
- Students, if leaves the course after the completion of the first semester for reasons beyond control, the student shall be eligible for re-admission within one year to the appropriate semester on payment of re-admission fee of Rs. 500/- under intimation to the university.
- If the period of break exceeds one year but does not exceed two years, student shall make representation to the university and the decision of the university is final.
- Student who leaves the college taking Transfer Certificate shall not be eligible for re-admission.

How to calculate attendance for a course:

The number of classes conducted shall be as calculated by the Course Teacher from the first working day to the last instructional day, excluding the final internal practical. For theory class, the number of theory classes conducted by the course teacher from the first working day as per the time table to the last theory class conducted by the Course Teacher shall be taken. For practical class, the number of practical classes conducted by the course teacher from the first working day as per the time table to the final practical examination day shall be taken for calculation.

Instructional Holidays:

- Instructional holidays shall be declared by the Dean of the campus for events in the students' activities and the semester working days shall be extended accordingly.

Examinations

Examinations are conducted for a total of 150 marks (Internal examination – 70 marks and External examination – 80 marks).

Internal Examinations:

The internal examination has internal theory and internal practical examinations. The evaluation shall be done by the Course Teacher.

Internal theory examination: The internal theory examination shall be conducted on completion of 70^{th} working day by the Course Teacher. It shall be conducted only in theory for 80 marks and later shall be converted to 20 marks.

Internal practical examination: The internal practical examination shall be conducted by the Couse, Teacher on the final practical class of the respective course in a semester. It shall be conducted for 50 marks. Out of 50 marks, 10 marks shall be allotted for practical records, 35 marks for doing laboratory practical, and another 5 marks for viva-voice.

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Supplementary Examination:

Supplementary examination shall be conducted for internal theory examinations for students absenting themselves for a specified genuine reason with the recommendation of the Students' Coordinator. The Dean has the discretionary power either to permit or reject the application after critically assessing the genuineness of the reason(s) for absence. The students who satisfy the minimum requirement of attendance shall pay an additional examination fee of Rs. 500/- for each supplementary examination and shall be permitted to write the examination before the completion of the final internal practical examinations.

External Examination:

- Students shall have to submit duly fill-in the prescribed application along with the payment of the examination fees for the conduct of final external theory examination, and attach the fee receipt for the issue of hall ticket

- Students shall have to produce a "No due certificate" at the time of distribution of hall tickets. Hostellers have to produce "Mess dues clearance certificate" obtained from the hostel administration.

Final external theory examination: The final external theory examination for 80 marks is conducted by the University at the end of the semester for two hours duration. The evaluation is done by the External Examiner.

1. **Courses with Theory and Practical:**
   Out of 150 marks, the internal theory and internal practical shall be conducted for 20 marks and 50 marks, respectively. The final external theory examination shall be conducted for 80 marks. The marks obtained for 150 (Theory 100 + Practical 50) shall be converted to 100 marks for calculation of the grade point.
2. **Course with Theory alone:**
   Out of 100 marks, 20 marks shall be allotted for internal theory examination, and 80 marks for final external theory examination.
3. **Courses with Practical alone:**
   The internal practical examination shall be conducted for 50 marks and converted to 100 marks for the calculation of the grade point.

General Conditions

- A minimum of 50% in theory and practical separately with an aggregate of 50% shall be essential to get a pass in a subject.
- The students who miss the internal theory examination shall be permitted to take the final external theory examination, provided they are eligible otherwise, i.e. they lose 20 marks meant for internal theory examination.
- The marks obtained under the internal theory examination shall be the final for the second and subsequent attempts.

- There shall be no arrear examination for the internal theory examination.
- The students who miss the final external theory examination shall be awarded **"F" (FAIL).**
- There shall be no supplementary examination for the final external theory examination.
- The students who were awarded 'F' shall take the examination in the subsequent semesters.
- No University examination shall be conducted in between during semester weeks.

Arrear Examinations:

There shall be arrear examination for students who secured less than 50% marks separately for theory and practical in a course. The arrear examination shall be conducted for theory or practical in which the student has failed. For the theory arrear examination, the examination shall include only the final external theory for 80 marks and for the practical arrear examination it shall be for 40 marks (excluding record marks). The students shall have to pay the prescribed arrear examination fee of Rs. 500/- for each course.

Scrutiny of Grades:

1. A student may apply to the Controller of Examinations within one week after the announcement of the marks for a scrutiny of the totaling of marks of the final external theory examination. The fee for such scrutiny shall be Rs.500/- for each course.
2. A student shall submit request to the Controller of Examinations for revaluation of answer paper of final external theory examination in a prescribed format through the Dean concerned not later than ten working days after the declaration of results. The fee for re-evaluation shall be Rs.1,000/- for each course.
3. Re-registration: A maximum of three attempts shall be permitted for each course (theory/practical) and after three unsuccessful attempts, the students shall have to re-register and repeat the course.
4. Mass absence of students from a class: Absence of students 'en masse' from a

class shall not be condoned. They shall be marked as "absent" and attendance calculated accordingly.

5. Mass absence of students from a University examination: Absence of students 'en masse' from a University examination which includes internal theory, internal practical and final external theory examinations shall not be condoned. They shall be awarded "FAIL" leading to eligible for supplementary / arrear examination / re registration of course provided, they are eligible otherwise.
6. Unfair means during examination: The Dean of the College shall be responsible for dealing with all cases of "Use of unfair means" in the various examinations. The phrase, "Use of unfair means" includes possession of any information or material by the student, talking to other students, copying from other students or from printed or written material etc. The Invigilator concerned, on finding the "Use of unfair means" by any student may take the answer scripts of the students and the material evidence, if any, and seek the explanation from the student. The student may also be sent out of the examination hall immediately. The Invigilator concerned shall report each case of unfair means direct to the Dean immediately with full details of the incident, answer scripts, the available evidence and explanation of the concerned student, if any. The Dean, on receipt of the report, may give an opportunity to the concerned student to represent his case. Considering all the available evidence, the Dean shall take appropriate action immediately.
7. Punishment to be met out for unfair means during university examinations: The respective Deans of the College shall be empowered to deal with all cases of unfair means by the students in the University examinations. The penalty shall be as indicated below:
    - A student found using unfair means during an internal examination (Theory / Practical) shall be deemed to have failed in that course.
    - A student found using unfair means during the external theory examination shall be deemed to have failed in all the courses registered by the student in that semester. In such case, the student shall not be permitted to take the remaining examinations, if any, in that semester and shall be deemed to have attempted and failed in those examinations.
    - The Dean after passing orders shall report each case falling under (a) and (b) above immediately to the University.

- For using unfair means of a serious nature such as ignoring the repeated instructions of Invigilator or abusing or threatening or assaulting the Invigilator, warranting higher penalties that those indicated in clauses (a) and (b) above, the Dean, besides treating the students as failed in all the courses registered in that semester, may further debar the student for the succeeding semester and the act be informed to the University. If further or more severe punishment is felt necessary, the Dean shall immediately inform the University about the full details of each together with all the material evidence, if any, and recommendation, explanation or representation of the student, if any. The Vice-Chancellor after examining the case may debar the student for further period or permanently. The decision of the Vice-Chancellor shall be final.
- The parent or the guardian of the concerned student shall be informed of any punishment awarded to the student and the reason thereof.

Graduation requirements

The students shall satisfy minimum residential requirements as follows:

a) Eight semesters for B.F.Sc. including six semesters of course work, including Student READY programme.
b) An enrolled student to earn B.F.Sc. degree shall complete the course credits and shall earn an OGPA of 5.50 on 10.00 point scale system.

The successful candidates on completion of the graduation requirements shall be classified as under.

OGPA from 5.50 to 7.49	-	Pass in Second class
From 7.50 to 8.99	-	Pass in First class
From 9.00 and above	-	Pass with Distinction

The above requirement for "Distinction" is applicable to those candidates who complete the degree programme without recording "F" (Fail) in any course. Students recording "F" in one or more courses and who have secured an OGPA of 7.50 and above shall be awarded only "First class" provided, they complete the degree programme within the minimum prescribed period of study.

Semester fee structure for the B.F.Sc. students of 2022-23 batch

Sl. No.	Particulars	I Semester	II, IV, VI Semester	III,V,VII Semester	VIII Semester
1.	**Tuition Fees***	4000	4000	4000	4000
2.	**Examination Fees –** i. Internal / Practical	2000	2000	2000	2000
	ii. Final Examination	1000	1000	1000	-
3.	**Special Fees**				-
	i. College Magazine	200	200	200	-
	ii. University Calendar	100	-	100	-
	iii. Library Fees	250	250	250	-
	iv. Sports, Games charge	250	250	250	-
	v. Computer charge	250	250	250	-
	vi. Laboratory contingency fund	500	500	500	-
	vii. Registration, enrolment fees	100	-	-	-
	viii. Admission fees	100	-	-	-
	ix. Syllabus	100	-	-	-
	x. Identity Card	100	-	-	-
	xi. Career Counselling charges	100	100	100	200
	xii. Transport charges	250	250	100	250
	xiii. Day Scholar amenity	100	-	100	-
	xiv. Lab Fund	500	500	500	-
4.	**Other Charges**				
	i. Students Association	250	250	250	250
	ii. University Journal subscription	100	100	100	100
	iii. Alumni Association	100	-	100	-
	iv. Student accident medical relief fund	200	-	200	-
	v. Certificate Verification charges	100	-	-	-
	vi. Transcript Card / Degree Certificate charges	500	-	-	-
	vii. Co-operative Society fees: (Membership fee Rs. 10/-, Share Capital Rs. 15/- and Trade Deposit Rs.100/-**)	125	-	-	-
	viii. Library Caution Deposit**	300	-	-	-
	ix. Blazer Charges	3000	-	-	-
	x. University Alumni Network	500	500	500	500
5.	**Lodging Fees (for Hostellers)**	1000	1000	1000	1000
	Total	**16075**	**11150**	**11500**	**8300**

- *SC/ST/Differently- abled condition of Tamil Nadu are exempted from paying tuition fees as per G.O.(Ms.) No.27 of Animal Husbandry, Dairying and Fisheries (AH6) Department, dated 22-02-20210; For BC/MBC/DNC, fees exemption will be followed as prescribed by the Government of Tamil Nadu
- **Refundable

Other Charges/ Fees for the Students

Sl. No	Particulars	Rs
1.	Original and Duplicate conduct certificate and Transfer certificate	250
2.	Supplementary /Arrear examinations, Re-totalling & Re-registration	500
3.	Re-evaluation	1000
4.	Migration certificate	250
5.	Duplicate Transcript cards	500
6.	Provisional certificate Duplicate Provisional certificate	250 500
7.	Issue of bona-fide certificate	250
8.	Duplicate Report cards	250
9.	Duplicate Degree certificate Plus a search fee per year from the year of passing till date	500 50
10.	Fees for condonation of shortage of attendance to write the University Examination for each subject/course	1000
11.	Attestation of certificates for admission in foreign countries	500
12.	Re-issue of duplicate hall ticket due to loss or misplacement of hall tickets	500
13.	Re-issue of library card	500

VII. Students Conduct, Control and Discipline Rules

Students are expected to know the requirements for the award of B.F.Sc. degree, the general academic requirements and assume full responsibility for meeting them. They should keep in constant touch with Coordinator or Counsellor and know their status / progress. In no case shall rules be waived or exception made simply because a student pleads ignorance of it.

Students' conduct

- Every student shall be of good behaviour and assist the authorities to maintain discipline in the University
- Every student shall help the University in preserving its properties and no student shall cause damage or loss to the property of the University
- No student shall except with the previous permission of the Dean of the College participate in the radio broadcast or contribute any article or write any letter either in his/her own name or other persons in a newspaper or in periodicals, produce any literature which is likely to bring disrepute to the University
- No student shall disrupt or cause disruption to the smooth functioning of the academic activities of the University

Dress regulations

The following dress regulations are compulsory and should be generally be observed.

For Boy Students

1. For lecture rooms, laboratories and within the premises of the College, shirts and pants and footwear to be own.
2. For tournaments and compulsory games, games shirts and shorts with or without stockings and shoes to be worn.

3. For ceremonial occasions and important functions, college blazer, pant, shirt, college tie and foot wear to be worn.

For Lady Students

1. For lecture rooms, any simple dress, preferably a churidhar / saree to be worm.
2. For laboratory work in biology and physical sciences, overcoat and putting of hair is essential.
3. For ceremonial occasions and important functions, churidhar / saree with college blazer to be worn.

Student Discipline

- Students should strictly avoid smoking, chewing of betal leaves, chewing gums, eating nuts, etc.
- Students should not use distracting cosmetics in class rooms and in field classes
- Students should not use lungis in class rooms, field classes, ceremonial occasions and important functions.
- Students should not bring mobile phones, ipods, blue tooth or tablets to classrooms and examination halls.

Rustication and Expulsion of students

- The Deans of concerned colleges shall have discretionary power to rusticate and expel both from the college from the hostel
- Cases of rustication shall be reported to the Registrar by the Dean concerned immediately after rustication or expulsion for registration and notification. The Dean may revise his decision within 15 days of the date of passing of orders of rustication and expulsion. The revised decision together with the reasons shall be communicated to the Registrar. The Registrar shall notify the constituent colleges and other institutions immediately after the expiry of 15 days period allowed to the Dean for revising the decision.
- When the student/students behave unruly either in the hostel or in the campus or outside and take action themselves which is turbulent in nature, the Dean using the discretionary powers may suspend the student/students

immediately on the spot without conducting any enquiry or waiting for the detail report from the Warden/Police/Staff members but collect full information on the incident/case within a period of 10 days from the date of suspension either to proceed further for meeting out the punishment or to reinstate the student.

Rustication:

- Rustication when imposed on a college student in the Semester will mean the loss of atleast one Semester (Not counting Semester in which the rustication is ordered). Rustication imposed during the current Semester with immediate effect and terminated by the end of the following semester.
- The students under rustication shall have the option of re-joining the Semester after the expiry of period of rustication
- The name of the rusticated student shall not be maintained on the rolls of college during the period of rustication.

Expulsion:

- A student expelled from a college may not be readmitted in to the same college or another college without sanction of the University and in no case shall be allowed to do so before expiry or two academic years or 4 semesters from the date of expulsion.
- The order of a Dean may be revised by the Vice-Chancellor on appeal by the student but the period lost in the meantime shall not count for residential requirement of the student
- The Vice-Chancellor is the competent authority to dismiss a student from the college on valid reasons.

Students Hostel Rules

VIII. Students Hostel Rules

GENERAL RULES

1. The Dean of the college will be overall charge of the student's hostel. The Warden of the hostel should assist the Dean in all the student welfare activities including boarding and lodging and extracurricular activities.
2. The Warden is assisted by the Deputy Wardens (Boys and Girls Hostels) in running the hostel administration. As per the instruction and guidance of the Warden, the Deputy Wardens shall function towards the efficient running of their respective hostels and messes.
3. Every student should apply in the prescribed form to the Warden of the concerned college hostel for admission in the hostel duly paying the required deposit and other hostel charges as prescribed from time to time. The caution deposit will be refunded when the hosteller finally leaves the hostel.
4. The rooms will be allotted according to alphabetical order of student's names. If any student is found changing to other rooms that student will be expelled from the hostel.
5. Other than hostel fees electrical and water charges will be charged based on usage from each student
6. Inmates should take utmost care of fittings, cot, table and chair provided to them and the same should be returned at the time of course completion. In case of any damage the actual cost with fine will be imposed on them
7. The students should have their own locks for their rooms and should lock their rooms whenever they go out.
8. In case of electrical failure in the rooms and common facilities the same may be noted down in the complaint register maintained in the hostel office
9. The students shall keep the rooms clean and tide.
10. Students are advised against keeping jewels or any other valuables in their rooms. The administration shall not take any responsibility for the safety.
11. With prior permission of the Warden, a member of the hostel may have a relative or a friend who is not an employee of the University to stay with him as a guest for not more than 7 days after paying the prescribed charges.

12. No student shall use any private fan or heater of any other such electrical appliances in his room. If any student is found guilty of using electric/electronic appliances, he / she is liable for severe punishment of fine upto Rs.1,000/-
13. Disciplinary action will be taken against any student found guilty of misconduct in the Hostel. Any student who misbehaves in the hostel is liable to be expelled immediately from the hostel by the Warden pending further enquiries. If such expulsion is disobeyed, he / she will be rusticated from the College.
14. Students are strictly prohibited from engaging any kinds of political, communal activity, etc. in the hostel.
15. The students are prohibited from taking any action by themselves in case of any disputes arising among the students. If any student is guilty of violating this rule, he / she will be expelled from the hostel for a period of four (4) semesters excluding the semester of expulsion.
16. Any student found harassing fellow inmates shall be expelled immediately from the hostel.
17. If any student is found smoking or consuming alcohol or using any intoxicating drinks or drugs in the hostel premises, he shall be expelled from the hostel permanently without any inquiry.
18. Mess timings fixed by the Warden should be strictly followed.

Break fast	:	7.30 a.m	to	9.00 a.m
Lunch	:	1.00 pm	to	2.00 p.m
Snacks	:	5.15 p.m	to	6.00 p.m
Dinner	:	7.30 p.m	to	9.00 p.m

19. Students should not take meals to their rooms without permission from the Deputy Warden / Warden and if anyone is found guilty, a fine of Rs.250 shall be levied.
20. Students found guilty of violating the hostel rules will be subjected to a fine as per the suggestions of the Warden and the enquiry committee. He or she can be expelled from the hostel for a period of 4 semesters
21. Ragging has been completely banned within the hostel premises. Disciplinary action will be taken against any student found guilty of ragging in the hostel. Those found guilty will be expelled or rusticated from the hostel, forthwith as per the provisions of the Government Order in force at that time.

22. Boys are expected to return to hostel premises before 7:30 pm. However, they are permitted extended time till 9:00 pm each Saturday. During emergencies and unavoidable situations he may be permitted with prior permission from the Warden.
23. Students are requested to submit a leave form signed from the respective Deputy Wardens prior to leaving home during holidays
24. During semester holidays, the students are not permitted to stay in the hostel excepting on permission from Hostel authorities.
25. Wanton misuse of furniture and other physical facilities in the hostel premises is an offence. A fine upto Rs.500/- would be collected from each student for such offence.
26. Inmates are requested to use internet facilities available in the respective hostels for academic purpose only. If anybody is found viewing / downloading unwanted and obscene literature / video / picture they will be expelled from the hostel.
27. Inmates are advised to keep minimum cash on hand. The excess amount may be deposited in their account and they are permitted to draw from the hostel office as when required.

ADDITIONAL RULES FOR GIRL'S HOSTEL

1. Students are expected to be back after the class hours in the afternoons top the hostel premises. Whenever they leave the hostel in the evening they are expected to be back to the hostel before 6.30pm. In such occasion, students have to sign in the movement register maintained with Hostel Security whenever they leave and enter the hostel.
2. Whenever the girl students leave the hostel in the evening they are expected to return back to the hostel premises before 6.30 p.m. Students desirous to go to the library may stay back till the closure of the library. For availing this provision, the evidence should be produced.
3. Late permission upto 8.30 p.m. is allowed twice a week which should be entered in the movement register, which will be scrutinized by the Warden/ Deputy Warden.

4. Visitors' time is restricted from 4.00 p.m. to 6.30 p.m. on all working days and on holidays from 8.00 a.m. to 6.30 p.m. Male visitors should be entertained only in the visitors' hall.
5. Male students are not allowed to visit the lady students in the ladies hostel campus.
6. Gate of ladies hostel would be locked at 8.30 p.m.
7. While going home on vacation or on other circumstances, students would inform the authority regarding the train or bus they travel, time and destination and the leave address. Students need to get parent /guardian's signature in prescribed format.
8. Lady Guest can stay in the ladies hostel not more than 3 days and they should pay the guest charges at the rate of Rs.50/day after getting permission from the Deputy Warden (Ladies Hostel) / Warden.
9. Students will be allowed to stay in their local guardian's house only twice in a month, based on the parents' letter to the Deputy Warden (Ladies Hostel) / Warden giving the name, phone number and address of the relatives.
10. The lady students should get prior written permission from the Hostel authorities to go out of Hostel before 6.00 a.m. and after 6.00 pm
11. Staying in other student's room after 9.30 pm and changing the rooms allotted to them are strictly prohibited.
12. While going on vacation or on other circumstances, inmates must inform the Warden/Deputy Warden with the details of their mode of travel, time, and destination and the leave address.
13. Outsiders are not permitted to enter the hostel.

HOSTEL AMENITY COMMITTEE

- A hostel Amenity Committee with the Dean as Chairman shall go into the activities of hostel inclusive of running the messes. The following shall be the constitution of Hostel Amenity Committee.

a. Dean	Chairman
b. Warden	Member Secretary
c. Vice-President, Students Association	Member
d. Deputy Wardens	Members

e.	Staff Sports Secretary	Member
f.	A.A.O of Hostel	Member
g.	Students Co-ordinators	Members
h.	A.E. (Civil & Electricals)	Member
i.	Hostel Secretaries (Boys & Girls Hostels)	Members
j.	Mess Secretaries (Boys and Girls Messes)	Members
k.	One representative from PG (Boys & Girls Hostels)	Members
l.	General Secretary	Member

Student’s Association Rules

IX. Student's Association Rules

There is a Students Association in each College of the University. All the students of the College are members of the Association. The subscription of the Association is prescribed time to time by the university. The objectives of the Students Association are

- To co-ordinate with the Programme Officer of N.S.S. of different colleges and organise literacy campaign, tree planting, blood donation, social and other fisheries developmental activities in the villages.
- To suggest measures for making the students employable on graduation.
- To suggest University Placement Cell to suitably arrange for the annual placement camp with potential employers
- To look into different students welfare measures in the university to chart out programmes for their development, harmony, character building and personality development.

Management Committee of the Students Association

The management of the Students Association vests with a committee consisting of official and student members as follows:

Official Members:

i. Dean of the College shall be the Ex-Officio President of the Students Association.

ii. A Senior Professor nominated by the Dean shall be Vice-President of the Association.

iii. A Professor/Associate Professor nominated by the Dean as Staff-Editor.

iv. A Professor/Associate Professor nominated by the Dean shall be sports secretary.

v. Assistant Director of Physical Education.

Student Members:

i. General Secretary

ii. Secretary - Tamil Peravai

iii. Secretary - Sports (Sports activities of the students)

iv. Secretary for each club (Special activity by a group of students) like NSS, Science Club, Blood donation club, Music Club, etc.

v. Student Editor

vi. The UG Class representatives shall be one / two depending upon the student's strength. If the student strength is below 100, one representative and if the strength is above 100, two representatives shall be nominated / elected.

vii. One class representative from M.F.Sc.

viii. One class representative from Ph.D.

ix. One Lady Representative from B.F.Sc. of each year.

General Secretary:

The General Secretary shall be from among representatives of the Final Year / Pre-final Year. The General Secretary shall be nominated by the Dean/ elected by the class representatives. The Committee meeting will be held as and when required but at least once in three months. One half of the members shall form quorum. The Vice President and the Student General Secretary will arrange for the meeting.

Sports Secretary

The Assistant Director of Physical Education with the guidance of Sports Secretary will select captains of various teams like football, volley ball, hockey, cricket and other games for which facilities are available in the College. Inter Collegiate / Inter University sports tournaments shall be conducted in Co-ordination with the Chairman of the University Sports Committee under the guidance of Sports Secretary with intensive coaching by the Assistant Director of Physical Education.

The management of sports and games shall be the responsibility of Secretary Sports assisted by the captains of various games.

Other Secretaries/ Representatives

The Secretary, Tamil Peravai, Secretary - Sports, Secretaries of other Clubs and Student Editor will be nominated by the Dean on the advice of the Vice-President/ Staff Editors/ Sports secretary. The representatives of the classes shall be nominated by the Dean / elected by the students of the respective classes. The members of the Editorial Board of the College Annual Magazine shall be nominated by the President. The Vice-President, Sports Secretary, Student Secretaries, Class representatives and other Student representatives shall hold office for one academic year (normally July to June). The Committee of Students Association shall be formed during the beginning of each academic year.

NOTE: A student who has not secured the minimum overall Grade Point Average of 6.0 out of 10.0 under Semester system or has been punished earlier in either college or hostel shall not be eligible for election or nomination for holding of office in any of the student body/organisations.

General Body Meeting of the Students Association

The General body of the Students Association shall consist members of the Association and the meeting shall be presided by the President or in his absence by the Vice President. All matters relating to election/nomination of office bearers, passing of budget, changing of rules and acceptance of prizes, etc. donated by students or private bodies to the Student Association shall be subject to approval of General Body. Prizes and nature of rolling trophies shall be in the custody of the Dean. The rules governing rolling trophies shall be formed by the donor and acceptable to the General body. The decision of General body shall be subject to approval by the President.

Finance for the Students Association

The finance for the Students Association is derived from

a) The fees collected for Association including social service league and college magazine from students.

b) The sports fees collected from the students.
c) Donation from officers and others.
d) Annual University grant not less than one third of the total collection.
e) Sale of unserviceable sports materials.
f) Sale of old papers.
g) Receipts by way of donations.

The accounts of the Association shall be maintained in the office of the Dean under guidance of the Vice-President and Sports Secretary for expenditure with regard to Association fees including social service fees and fee for college magazines and sports fees. The accounts are subjected to audit by the local fund audit.

Events conducted by the Students Association

Annual college and sports day shall be conducted. Prizes and medal shall be awarded to winners in literary and cultural competitions conducted between Inter Classes and Inter Colleges. Colours (Special Badges) shall be awarded to the students who have secured a first place in athletic and sports and to members of cricket, hockey, football, tennis and minor games such as basketball, volley ball, badminton and table tennis who have played regularly and who have in the opinion of the official members of the committee attained a standard, which merits recognition.

- Academic Calendar

First Semester

December 2022

Date	Day	Event	No. of Working Days
1	Thursday		
2	Friday		
3	Saturday		
4	Sunday		
5	Monday	World Soil Day	
6	Tuesday		
7	Wednesday	Orientation Programme	
8	Thursday	Registration - I semester	
9	Friday	Commencement - I semester	1
10	Saturday		2
11	Sunday		
12	Monday		3
13	Tuesday		4
14	Wednesday		5
15	Thursday		6
16	Friday		7
17	Saturday		8
18	Sunday		
19	Monday		9
20	Tuesday		10
21	Wednesday		11
22	Thursday		12
23	Friday		13
24	Saturday		14
25	Sunday		
26	Monday		15
27	Tuesday		16
28	Wednesday		17
29	Thursday		18
30	Friday		19
31	Saturday		20

January 2023

Date	Day	Event	No. of Working Days
1	Sunday	New Year	
2	Monday		21
3	Tuesday		22
4	Wednesday		23
5	Thursday		24
6	Friday		25
7	Saturday		26
8	Sunday		
9	Monday		27
10	Tuesday		28
11	Wednesday		29
12	Thursday		30
13	Friday		31
14	Saturday		32
15	Sunday	Pongal	
16	Monday	Thiruvalluvar Day	
17	Tuesday	Uzhavar Thirunal	
18	Wednesday		33
19	Thursday		34
20	Friday		35
21	Saturday		36
22	Sunday		
23	Monday		37
24	Tuesday		38
25	Wednesday		39
26	Thursday	Republic Day	
27	Friday		40
28	Saturday		41
29	Sunday		
30	Monday		42
31	Tuesday		43

February 2022

Date	Day	Event	No. of working days
1	Wednesday		44
2	Thursday		45
3	Friday		46
4	Saturday		47
5	Sunday	Thaipoosam	
6	Monday		48
7	Tuesday		49
8	Wednesday		50
9	Thursday		51
10	Friday		52
11	Saturday		53
12	Sunday		
13	Monday		54
14	Tuesday		55
15	Wednesday		56
16	Thursday		57
17	Friday		58
18	Saturday		59
19	Sunday		
20	Monday		60
21	Tuesday		61
22	Wednesday		62
23	Thursday		63
24	Friday		64
25	Saturday		65
26	Sunday		
27	Monday		66
28	Tuesday	Science Day	67

March 2023

Date	Day	Event	No. of Working days
1	Wednesday		68
2	Thursday		69
3	Friday	Commencement of Midterm Examination	70
4	Saturday		71
5	Sunday		
6	Monday		72
7	Tuesday		73
8	Wednesday	International Women's Day	74
9	Thursday		75
10	Friday		76
11	Saturday	Closure of Midterm Examination	77
12	Sunday		
13	Monday		78
14	Tuesday		79
15	Wednesday		80
16	Thursday		81
17	Friday		82
18	Saturday		83
19	Sunday		
20	Monday		84
21	Tuesday		85
22	Wednesday	Holiday- World Water Day/Telugu New Year	
23	Thursday		86
24	Friday		87
25	Saturday		88
26	Sunday		
27	Monday		89
28	Tuesday		90
29	Wednesday		91
30	Thursday		92
31	Friday		93

April 2023

Date	Day	Event	No. of working days
1.	Saturday		94
2.	Sunday		
3.	Monday		95
4.	Tuesday	Mahavir Jayanti	
5.	Wednesday		96
6.	Thursday	Commencement - I Semester Practical examination	97
7.	Friday	Good Friday	
8.	Saturday		98
9.	Sunday		
10.	Monday		99
11.	Tuesday		100
12.	Wednesday		101
13.	Thursday		102
14.	Friday	Tamil New Year	
15.	Saturday		103
16.	Sunday		
17.	Monday		104
18.	Tuesday	Closure - I Semester Practical Examination	105
19.	Wednesday	Study Holiday	
20.	Thursday	Study Holiday	
21.	Friday	Study Holiday	
22.	Saturday	Ramzon	
23.	Sunday		
24.	Monday	Commencement - I Semester Theory Examination	
25.	Tuesday		
26.	Wednesday		
27.	Thursday		
28.	Friday		
29.	Saturday		
30.	Sunday		

Second Semester

May 2023

Date	Day	Event	No. of working days
1.	Monday	May day	
2.	Tuesday		
3.	Wednesday	Closure of I semester theory examination	
4.	Thursday	Summer Holiday	
5.	Friday	Summer Holiday	
6.	Saturday	Summer Holiday	
7.	Sunday	Summer Holiday	
8.	Monday	Summer Holiday	
9.	Tuesday	Summer Holiday	
10.	Wednesday	Summer Holiday	
11.	Thursday	Summer Holiday	
12.	Friday	Summer Holiday	
13.	Saturday	Summer Holiday	
14.	Sunday	Summer Holiday	
15.	Monday	Summer Holiday	
16.	Tuesday	Summer Holiday	
17.	Wednesday	Summer Holiday	
18.	Thursday	Summer Holiday	
19.	Friday	Summer Holiday	
20.	Saturday	Summer Holiday	
21.	Sunday	Summer Holiday	
22.	Monday	Summer Holiday	
23.	Tuesday	Summer Holiday	
24.	Wednesday	Summer Holiday	
25.	Thursday	Summer Holiday	
26.	Friday	Summer Holiday	
27.	Saturday	Summer Holiday	
28.	Sunday	Summer Holiday	
29.	Monday	Summer Holiday	
30.	Tuesday	Summer Holiday	
31.	Wednesday	Summer Holiday	

June 2023

Date	Day	Event	No. of working days
1.	Thursday	Registration - II semester	
2.	Friday	Commencement - II semester	1
3.	Saturday		2
4.	Sunday		
5.	Monday	World Environment Day	3
6.	Tuesday		4
7.	Wednesday	World Food Safety Day	5
8.	Thursday		6
9.	Friday		7
10.	Saturday		8
11.	Sunday		
12.	Monday		9
13.	Tuesday		10
14.	Wednesday		11
15.	Thursday		12
16.	Friday		13
17.	Saturday		14
18.	Sunday		
19.	Monday		15
20.	Tuesday		16
21.	Wednesday		17
22.	Thursday		18
23.	Friday		19
24.	Saturday		20
25.	Sunday		
26.	Monday		21
27.	Tuesday		22
28.	Wednesday		23
29.	Thursday	Bakrid	
30.	Friday		24

July 2023

Date	Day	Event	No. of working days
1.	Saturday		25
2.	Sunday		
3.	Monday		26
4.	Tuesday		27
5.	Wednesday		28
6.	Thursday		29
7.	Friday		30
8.	Saturday		31
9.	Sunday		
10.	Monday	National Fish Farmers's Day	32
11.	Tuesday		33
12.	Wednesday		34
13.	Thursday		35
14.	Friday		36
15.	Saturday		37
16.	Sunday		
17.	Monday		38
18.	Tuesday		39
19.	Wednesday		40
20.	Thursday		41
21.	Friday		42
22.	Saturday		43
23.	Sunday		
24.	Monday		44
25.	Tuesday		45
26.	Wednesday		46
27.	Thursday		47
28.	Friday		48
29.	Saturday	Muharam	
30.	Sunday		
31.	Monday		49

August 2023

Date	Day	Event	No. of working days
1.	Tuesday		50
2.	Wednesday		51
3.	Thursday		52
4.	Friday		53
5.	Saturday		54
6.	Sunday		
7.	Monday		55
8.	Tuesday		56
9.	Wednesday		57
10.	Thursday		58
11.	Friday	International Youth Day	59
12.	Saturday		60
13.	Sunday		
14.	Monday		61
15.	Tuesday	Independence day	
16.	Wednesday		62
17.	Thursday		63
18.	Friday		64
19.	Saturday		65
20.	Sunday		
21.	Monday		66
22.	Tuesday		67
23.	Wednesday		68
24.	Thursday		69
25.	Friday	Commencement - Mid term examination	70
26.	Saturday		71
27.	Sunday		
28.	Monday		72
29.	Tuesday	National Sports Day	73
30.	Wednesday		74
31.	Thursday		75

September 2023

Date	Day	Event	No. of working days
1.	Friday		76
2.	Saturday		77
3.	Sunday		
4.	Monday	Closure - Mid term examination	78
5.	Tuesday	National Teachers Day	79
6.	Wednesday	Krishna Jayanthi	
7.	Thursday		80
8.	Friday		81
9.	Saturday		82
10.	Sunday		
11.	Monday		83
12.	Tuesday		84
13.	Wednesday		85
14.	Thursday		86
15.	Friday		87
16.	Saturday		88
17.	Sunday	Vinayagar Chaturthi	
18.	Monday		89
19.	Tuesday		90
20.	Wednesday		91
21.	Thursday		92
22.	Friday		93
23.	Saturday		94
24.	Sunday		
25.	Monday		95
26.	Tuesday	Commencement - II Semester Practical examination	96
27.	Wednesday		97
28.	Thursday	Eid e Milad	
29.	Friday		98
30.	Saturday		99

October 2023

Date	Day	Event	No. of working days
1.	Sunday		
2.	Monday	Gandhi Jayanthi	
3.	Tuesday		100
4.	Wednesday		101
5.	Thursday		102
6.	Friday		103
7.	Saturday		104
8.	Sunday		
9.	Monday	Closure - II semester Practical examination	105
10.	Tuesday		
11.	Wednesday		
12.	Thursday		
13.	Friday		
14.	Saturday		
15.	Sunday		
16.	Monday	World Food Day	
17.	Tuesday		
18.	Wednesday		
19.	Thursday		
20.	Friday		
21.	Saturday		
22.	Sunday		
23.	Monday	Auydha pooja	
24.	Tuesday	Vijaya dashami	
25.	Wednesday		
26.	Thursday		
27.	Friday		
28.	Saturday		
29.	Sunday		
30.	Monday		
31.	Tuesday		

November 2023

Date	Day	Event	No. of Working days
1.	Wednesday		
2.	Thursday		
3.	Friday		
4.	Saturday		
5.	Sunday		
6.	Monday		
7.	Tuesday		
8.	Wednesday		
9.	Thursday		
10.	Friday		
11.	Saturday		
12.	Sunday	Deepavali	
13.	Monday		
14.	Tuesday		
15.	Wednesday		
16.	Thursday		
17.	Friday	World Students Day	
18.	Saturday		
19.	Sunday		
20.	Monday		
21.	Tuesday	World Fisheries Day	
22.	Wednesday		
23.	Thursday		
24.	Friday		
25.	Saturday		
26.	Sunday		
27.	Monday		
28.	Tuesday		
29.	Wednesday		
30.	Thursday		

- B.F.Sc. Courses

Department wise

Semester wise

Department wise courses for B. F. Sc. 2019-20 batch

DEPARTMENT OF AQUACULTURE			
1.	FS-101	Principles of Aquaculture	2(1+1)
2.	FS-110	Freshwater Aquaculture	3(2+1)
3.	FS-111	Aquaculture in Reservoirs	2(1+1)
4.	FS-201	Ornamental Fish Production and Management	2(1+1)
5.	FS-202	Fish Food Organisms	2(1+1)
6.	FS-210	Coastal Aquaculture and Mariculture	3(2+1)
7.	FS-211	Genetics and Breeding	2(1+1)
8.	FS-212	Fish Nutrition and Feed Technology	3(2+1)
9.	FS-301	Finfish Hatchery Management	3(2+1)
10.	FS-302	Introduction to Biotechnology and Bioinformatics	3(2+1)
11.	FS-310	Shellfish Hatchery Management	2(1+1)
		Total	16+11=27
DEPARTMENT Of AQUATIC ANIMAL HEALTH MANAGEMENT			
1.	FS-203	Fish Immunology	2 (1+1)
2.	FS-213	Fish and Shellfish Pathology	3 (2+1)
3.	FS-303	Pharmacology	3 (2+1)
4.	FS-304	Fish Toxicology	2 (1+1)
5.	FS-311	Microbial and Parasitic Diseases of Fish and Shellfish	3 (2+1)
6.	FS-312	Therapeutics in Aquaculture	2 (1+1)
		Total	15 (9+6)
DEPARTMENT OF FISHERIES BIOLOGY AND RESOURCE MANAGEMENT			
1.	FS-102	Taxonomy of Finfish	3 (1+2)
2.	FS-103	Anatomy and Biology of Finfish	3 (2+1)
3.	FS-112	Taxonomy of Shellfish	2 (1+1)
4.	FS-113	Anatomy and Biology of Shellfish	2 (1+1)
5.	FS-114	Inland Fisheries	3 (2+1)
6.	FS-204	Marine Fisheries	3 (2+1)
7.	FS-214	Physiology of Finfish and Shellfish	3 (2+1)
8.	FS-305	Fish Population Dynamics and Stock Assessment	3 (2+1)
		Total	22 (13+9)
DEPARTMENT OF AQUATIC ENVIRONMENT MANAGEMENT			
1.	FS-104	Meteorology, Climatology and Disaster Management	3 (2+1)
2.	FS-105	Soil and Water Chemistry	3 (2+1)
3.	FS-115	Limnology	3 (2+1)

4.	FS-116	Marine Biology	3 (2+1)
5.	FS-205	Aquatic Ecology and Biodiversity	3 (2+1)
6.	FS-215	Fishery Oceanography	2 (1+1)
7.	FS-216	Aquatic Pollution and Coastal Zone Management	3 (2+1)
		Total	20 (13+7)
DEPARTMENT OF FISH PROCESSING TECHNOLOGY			
1.	FS-106	Fundamentals of Biochemistry	3(2+1)
2.	FS-107	Fundamentals of Microbiology	3(2+1)
3.	FS-117	Food Chemistry and Fish in Nutrition	3(2+1)
4.	FS-206	Freezing Technology	2(1+1)
5.	FS-217	Fish Canning Technology	2(1+1)
6.	FS-306	Fish By-Products and Waste Utilization	2(1+1)
7.	FS-307	Microbiology of Fish and Fishery Products	3(2+1)
8.	FS-313	Fish Products and Value Addition	3(2+1)
9.	FS-314	Fish Packaging Technology	2(1+1)
10.	FS-315	Quality assurance of Fish and Fishery Products	3(2+1)
		Total	26 (16+10)
DEPARTMENT OF FISHERIES ENGINEERING AND FISHING TECHNOLOGY			
1.	FS-207	Refrigeration and Equipment Engineering	3 (2+1)
2.	FS-218	Fishing Gear Technology	2 (1+1)
3.	FS-308	Aquaculture Engineering	3 (2+1)
4.	FS-309	Fishing Craft Technology	2 (1+1)
5.	FS-316	Fishing Technology	2 (1+1)
6.	FS-317	Navigation and Seamanship	2 (1+1)
		Total	14 (8+6)
DEPARTMENT OF FISHERIES ECONOMICS, EXTENCION AND INFORMATION TECHNOLOGY			
1.	FS-108	Statistical Methods	3 (2+1)
2.	FS-118	Information and Communication Technology	2 (1+1)
3.	FS-208	Fisheries Extension Education and Personality Development	3 (2+1)
4.	FS-209	Fisheries Economics	3 (2+1)
5.	FS-318	Fisheries Administration and Entrepreneurship Development	2 (2+0)
6.	FS-319	Fisheries Co-operatives, Marketing and Business Management	3 (2+1)
		Total	16 (11+5)
	FS - 401	Student READY Programme	
		a) In-plant attachment (for 8 weeks)	10 (0+10)
		b) Rural Fisheries Work Experience Prog. (for 8	8 (0+8)

		weeks)	
		c) Study Tour (in and outside State) (for 4 weeks)	2 (0+2)
		Total	20 (0+20)
7.	FS - 402	Student READY Programme	
		a) Skill Development (for one week)	5 (0+5)
		b) Experiential Learning Programme	12 (0+12)
		c) Project Work	2 (0+2)
		d) Seminar	1 (0+1)
		Total	20 (0+20)
Compulsory non-credit courses			
1.	FS-109*	Swimming	1(0+1)
2.	FS-119*	Physical Education, First Aid & Yoga Practices	1(0+1)
		Total	2 (0+2)

Semester wise distribution of courses for B.F.Sc. 2019-20 batch

Semester	Course No.	Course Title	Credit Hours
First Semester	FS-101	Principles of Aquaculture	2 (1+1)
	FS-102	Taxonomy of Finfish	3 (1+2)
	FS-103	Anatomy and Biology of Finfish	3 (2+1)
	FS-104	Meteorology, Climatology and Disaster Management	3 (2+1)
	FS-105	Soil and Water Chemistry	3 (2+1)
	FS-106	Fundamentals of Biochemistry	3 (2+1)
	FS-107	Fundamentals of Microbiology	3 (2+1)
	FS-108	Statistical Methods	3 (2+1)
	FS-109*	Swimming	1 (0+1)
		Total	23 (14+9)
Second Semester	FS-110	Freshwater Aquaculture	3 (2+1)
	FS-111	Aquaculture in Reservoirs	2 (1+1)
	FS-112	Taxonomy of Shellfish	2 (1+1)
	FS-113	Anatomy and Biology of Shellfish	2 (1+1)
	FS-114	Inland Fisheries	3 (2+1)
	FS-115	Limnology	3 (2+1)
	FS-116	Marine Biology	3 (2+1)
	FS-117	Food Chemistry and Fish in Nutrition	3 (2+1)
	FS-118	Information and Communication Technology	2 (1+1)
	FS-119*	Physical Education, First Aid & Yoga Practices	1 (0+1)
		Total	23 (14+9)
Third Semester	FS-201	Ornamental Fish Production and Management	2 (1+1)
	FS-202	Fish Food Organisms	2 (1+1)
	FS-203	Fish Immunology	2 (1+1)
	FS-204	Marine Fisheries	3 (2+1)
	FS-205	Aquatic Ecology and Biodiversity	3 (2+1)
	FS- 206	Freezing Technology	2 (1+1)
	FS-207	Refrigeration and Equipment Engineering	3 (2+1)
	FS-208	Fisheries Extension Education and Personality Development	3 (2+1)
	FS-209	Fisheries Economics	3 (2+1)
		Total	**23 (14+9)**
Fourth Semester	FS-210	Coastal Aquaculture and Mariculture	3 (2+1)
	FS-211	Genetics and Breeding	2 (1+1)
	FS-212	Fish Nutrition and Feed Technology	3 (2+1)
	FS-213	Fish and Shellfish Pathology	3 (2+1)
	FS-214	Physiology of Finfish and Shellfish	3 (2+1)
	FS-215	Fishery Oceanography	2 (1+1)
	FS-216	Aquatic Pollution and Coastal Zone Management	3 (2+1)

	FS-217	Fish Canning Technology	2 (1+1)
	FS-218	Fishing Gear Technology	2 (1+1)
		Total	**23 (14+9)**
Fifth Semester	FS-301	Finfish Hatchery Management	3 (2+1)
	FS-302	Introduction to Biotechnology and Bioinformatics	3 (2+1)
	FS-303	Pharmacology	3 (2+1)
	FS-304	Fish Toxicology	2 (1+1)
	FS-305	Fish Population Dynamics and Stock Assessment	3 (2+1)
	FS-306	Fish By-Products and Waste Utilization	2 (1+1)
	FS 307	Microbiology of Fish and Fishery Products	3 (2+1)
	FS-308	Aquaculture Engineering	3 (2+1)
	FS-309	Fishing Craft Technology	2 (1+1)
		Total	**24 (15+9)**
Sixth Semester	FS-310	Shellfish Hatchery Management	2 (1+1)
	FS-311	Microbial and Parasitic Diseases of Fish and Shellfish	3 (2+1)
	FS-312	Therapeutics in Aquaculture	2 (1+1)
	FS-313	Fish Products and Value Addition	3 (2+1)
	FS-314	Fish Packaging Technology	2 (1+1)
	FS-315	Quality assurance of Fish and Fishery Products	3 (2+1)
	FS-316	Fishing Technology	2 (1+1)
	FS-317	Navigation and Seamanship	2 (1+1)
	FS-318	Fisheries Administration and Entrepreneurship Development	2 (2+0)
	FS-319	Fisheries Co-operatives, Marketing and Business Management	3 (2+1)
		Total	**24 (15+9)**
Seventh Semester	FS – 401	Student READY Programme In-plant attachment (for 8-16 weeks)	10 (0+10)
		Rural Fisheries Work Experience Program (for 2- 8 weeks)	8 (0+8)
		Study Tour (in & outside State) (for 4 weeks)	2 (0+2)
		Total	**20 (0+20)**
Eighth Semester	FS - 402	Student READY Programme	
		Skill Development (for one week)	5 (0+5)
		Experiential Learning Programme	12 (0+12)
		Project Work	2 (0+2)
		Seminar	1 (0+1)
		Total	**20 (0+20)**

- B.F.Sc. Course Syllabus

I Semester Course Syllabus for 2022-23 Batch

1. FS - 101 PRINCIPLES OF AQUACULTURE 2 (1+1)

THEORY

Unit – I

Basics of aquaculture, definition and scope. History of aquaculture: Present global and national scenario. Aquaculture vs Agriculture

Unit – II

Systems of aquaculture - pond culture, pen culture, cage culture, running water culture and zero water exchange system

Unit – III

Extensive, semi-intensive, intensive and super intensive aquaculture in different types of water bodies viz., freshwater, brackish water inland saline and marine water

Unit – IV

Principles of organic aquaculture. Pre-stocking and post stocking pond management. Carrying capacity of pond, factors influencing carrying capacity. Criteria for selection of candidate species for aquaculture

Unit – V

Major candidate species for aquaculture: freshwater, brackish-water and marine. Monoculture, polyculture and integrated culture systems. Water and soil quality in relation to fish production. Physical, chemical and biological factors affecting productivity of ponds.

PRACTICALS

Aquaculture production statistics- world and India. Aquaculture resources of world and India. Components of Aquaculture farms. Estimation of carrying capacity. Practices on pre-stocking and post stocking management. Growth studies in aquaculture system. Study on waste accumulation in aquaculture system (NH_3, Organic matter, CO_2). Analysis of manure.

2. FS- 102 Anatomy and Biology of Finfish 3(2+1)

Theory

UNIT I

Study of external and internal anatomy of important groups of finfish. Study of oral region and associated structures. Digestive system and associated digestive glands presents

UNIT II

Food and feeding habits of commercially important fishes- qualitative and quantitative methods of analysis of gut contents.

UNIT III

Circulatory system, respiratory system, nervous system, endocrine system, skeletal systems and sensory organs

UNIT IV

Urino-genital system- Reproductive biology –Sexual dimorphism- maturity stages, gonado-somatic index, ponderal index, fecundity, sex ratio and spawning. Eggs and larval stages and developmental biology.

UNIT V
Age and growth determination by direct and indirect methods. fish migration – type and significance. Tagging and marking.

Practicals
Study of internal organs – digestive, respiratory, circulatory, urino-genital system, nervous, skeletal systems and endocrine system. Study of food and feeding habits. Analysis of gut contents. Estimation of age and growth by direct and indirect methods. Classification of maturity stages. Estimation of fecundity. Study of developmental stages. Tagging and marking.

3. FS 102 Taxonomy of Finfish 3 (1+2)

Theory

Unit I
Principles of taxonomy. Nomenclature, types. Classification and interrelationships. Criteria for generic and specific identification.

Unit II
Morphological, morphometric and meristic characteristics of taxonomic significance.

Unit III
Major taxa of inland and marine fishes up to family level.

Unit IV
Commercially important freshwater and marine fishes of India and their morphological characteristics.

Unit V
Introduction to modern taxonomic tools: karyotaxonomy, DNA barcoding, protein analysis and DNA polymorphism.

Practicals

Collection and identification of commercially important inland and marine fishes.Study of their external morphology and diagnostic features. Visit to fish landing centers to study commercially important fishes and catch composition.

4. FS 104 Meteorology, Climatology and Disaster Management 3 (2+1)

Theory
Unit: I
Nature of Atmosphere: weather and climate; composition of atmosphere; structure of atmosphere. Heat energy of atmosphere: process of heat transmission;

heating of atmosphere; disposal of insulation; irregular heating of atmosphere. Temperature: Temperature instruments; periodic, horizontal and vertical temperature variations; effects of vertical air motion on temperature. Humidity and water vapour: relationship between temperature and humidity; distribution of water vapour in atmosphere; evaporation, humidity instruments and measurements. Condensation and precipitation: process of conditions of condensation, forms of condensation; precipitation; forms of precipitation, measurement of precipitation; rainfall in India.

Unit: II

Clouds and thunderstorms: amount of cloudiness; ceiling; classification of clouds; conditions of cloud formation; reporting and identification of clouds; thunderstorms. Atmospheric pressure: meaning of atmospheric pressure; the laws of Gases; pressure units; pressure instruments; vertical, horizontal and periodic variations; isobars and pressure gradients. Wind: characteristics of wind motion; wind observation and measurement; wind representation; factors affecting wind motion. Terrestrial or planetary winds: ideal planetary wind system; planetary pressure belts. Planetary wind system; secondary winds; monsoon winds; land and sea breeze.

Unit: III

Tropical cyclones: storm divisions; pressure and winds; vertical structure of storm centre; hurricane, sea, swell and surge; hurricane warning. Weather forecasting: forecasting process; forecasting from local indications; role of satellite in weather forecasting; synoptic weather charts. Effects of climate change on fisheries sector. Introduction to Geography: shape, size and structure of the earth; concepts of latitude, longitude and great circles; model globe, maps and different types of projections; cartography; landscape.

Unit: IV

Basic concepts: Hazard, risk, vulnerability, disaster, capacity building. Multi-hazard and disaster vulnerability of India. Types of natural and manmade hazards in fisheries and aquaculture - cyclones, floods, droughts, tsunami, El-nino, algal blooms, avalanches, pollution, habitat destruction, over fishing, introduction of exotic species, landslides, epidemics, loss of bio-diversity etc. Causes, characteristics and effects of disasters.

Unit: V

Management strategies: pre-disaster, during disaster and post-disaster. Pre-disaster: prevention, preparedness and mitigation; different ways of detecting and predicting disasters; early warning, communication and dissemination, community based disaster preparedness, structural and non-structural mitigation measures. During disaster: response and recovery systems at national, state and local, coordination between different agencies, international best practices. Post-disaster: Methods for assessment of initial and long term damages, reconstruction and rehabilitation. Prevalent national and global management practices in disaster management. Agencies involved in monitoring and early warnings at district, state, national and global levels. Sea safety and health. Acquaintance with fire-fighting devices. Life-saving appliances and first-aid. Uses of distress signals and technologies. Relief and rehabilitation measures, trauma counselling.

Practical:

Meteorology: Graphic representation of structure of atmosphere; physical layering and compositional layering. Temperature instruments: simple thermometers; six's Max-Min Thermometer; thermograph. Isotherms: world mean temperatures-January to July. India

mean temperatures - January to July. Humidity measurement: hygrometer; psychrometer; relative humidity; dew point. Condensation: observation and identification of various types of clouds. Depicting sky picture. Precipitation: measurement of rainfall using rain gauge. Mapping Indian monsoons: south-west monsoon and rainfall in June, North-east monsoon and rainfall in December; isohyets. Atmospheric pressure measurement: Fortin's mercurial barometer; Aneroid barometer. Isobars: India mean pressure - Jan to July. Wind observation and measurement: wind vane; cup anemometer. Ideal terrestrial/planetary pressure and wind systems: diagrammatic representation. Geography: The Earth:diagrammatic representation of shape, size, structure, zones, latitudes, longitudes and great circles. Typical landscape mapping; map reading. Geographical terms used in landscape.

5. FS – 105 STATISTICAL METHODS

THEORY

UNIT -I

Definition of statistics, Concepts of population, sample, Census and sample surveys, Classification of data, frequency and cumulative frequency table. Diagrammatic and graphical representation of data - bar diagrams, pie-diagram, histogram, frequency polygon, frequency curve and Ogives

UNIT -II

Important measures of central tendency - arithmetic mean median and mode. Relative merits and demerits of these measures. Important measures of dispersion, Range, Mean Deviation, Variance and Standard Deviation. Relative merits and demerits of these measures. Coefficient of variation; Normal Curve, Concepts of Skewness and kurtosis.

UNIT -III

Definitions of probability, mutually exclusive and independent events, conditional probability, addition and multiplication theorems. Random variable, concepts of theoretical distribution; Binomial, Poisson and Normal distributions and their use in fisheries.

UNIT -IV

Basic concept of sampling distribution; standard error and central limit theorem. Introduction to statistical inference, general principles of testing of hypothesis, types of errors. Tests of significance based on Normal, t, and Chi-square distributions.

UNIT -V

Bivariate data, scatter diagram, simple linear correlation, measure and properties, linear regression, equation and fitting; relation between correlation and regression, Length weight relationship in fishes; applications of linear regression in fisheries. Methodology for estimation of marine fish landings in India, Estimation of inland fish production in India and problems encountered.

PRACTICAL

Construction of questionnaires and schedules. Diagrams and frequency graphs, calculation of arithmetic mean, median, mode, range, mean deviation, variance and standard deviation. Exercises on probability and conditional probability, Binomial and Poisson distributions, Area of normal curve. Test of hypothesis based on normal, t, and chi-square – simple problems. Simple Problems on correlation and regression. Fitting of length-weight relationship in fishes.

6. FS-106 Fundamentals of Biochemistry 3(2+1)

Theory

Unit 1

A brief introduction to developments in biochemistry and its transformation to molecular biology. Cell structure, water and major molecules of life.

Unit 2

Protein chemistry: classifications and functions. Classification, structure, function and properties of amino acids. Essential and non-essential amino acids. Primary, secondary, tertiary and quaternary structure of proteins. Amphoteric property. Biuret reaction and xanthoproteic reaction. Digestion and absorption of proteins. Enzymes: nomenclature; classification; specificity; mechanism of enzyme action; kinetics and regulation of enzyme activity.

Unit 3

Carbohydrate chemistry: Structure, classification, functions (mono, di and polysaccharides) isomerism and mutarotation. Metabolism of carbohydrates: glycolysis, gluconeogenesis, glycogenolysis, glycogenesis, TCA cycle, central role of TCA cycle in metabolism. Classification, structure, functions and properties of lipids. Essential fatty acids and phospholipids. Digestion and absorption of lipids. Lipid auto-oxidation. Significance of Omega-3 and Omega-6 fatty acids.

Unit 4

Structure and functions of fat and water soluble vitamins. Vitamins – classification-functions. Minerals – classification – functions. Steroid and peptide hormones- chemistry and function. Nucleic acids: Structure function and importance genetic code. Transcription and translation. Protein synthesis. Energy changes in chemical reactions, reversible and irreversible reactions in metabolism.

Unit 5

Biochemical Techniques: Chromatography – Partition coefficient, Retention, Resolution, Capacity factor, theoretical plate, Van Deemter curve, Gel filtration chromatography, Ion exchange chromatography, Affinity chromatography, Hydrophobic interaction chromatography, Paper chromatography, Thin layer chromatography, Reversed-phase chromatography, Fundamentals of high performance chromatography – Electrophoresis – Native PAGE, SDS-PAGE, Isoelectric focusing, 2D-PAGE, Capillary electrophoresis – Spectroscopy: Fundamentals of UV Spectroscopy, Spectrophotometer, Fundamentals of fluorescence spectroscopy, Spectrofluorometer.

Practical

Preparation of normal solution of acid and base, buffers and reagents. Qualitative determination of carbohydrates, proteins and lipids. Estimation of total nitrogen and crude protein of fish tissue. Estimation of carbohydrates in foods. Determination of specific gravity of oil. Extraction and estimation of total lipids in fish tissue. Determination of saponification value, iodine value and free fatty acid value.

7. FS 107 Fundamentals of Microbiology 3 (2+1)

Theory

Unit 1:

Milestones in microbiology. Contributions of Leeuwenhoek, Louis Pasteur, Robert Koch, Alexander Flemming, Joseph Lister, Winogrdasky. Microbial taxonomy –Bergy's and molecular taxonomy types of Microorganisms: Prokaryotes– Morphology and ultrastructure of bacterial cell. General features, types and importance of viruses, cyanobacteria, actinomycetes, archae, mycoplasma, rickettsiae. Eukaryotes – Diagnostic features and importance of fungi and protozoa.

Unit 2 :

Microscopy- Principle and construction of brightfield, dark field, phase contrast, stereo, SEM and TEM. Microbial Techniques - Types of media, types of sterilization - physical and chemical agents, cultivation of microorganisms, staining techniques – simple, differential, structural staining; enumeration of micro-organisms, culture preservation methods.

Unit 3 :

Bacterial metabolism: Nutrient requirements, nutritional types, bacterial photosynthesis and their ecological significance. Microbial growth: Growth phases, measurement of cell growth, factors affecting growth- influence of physico-chemical factors - pH, temperature, moisture, light, osmotic pressure, fermentation - types and significance. Microbial genetics- general principles, genetic recombination, transformation, transduction and conjugation. Plasmids- types and their importance. Mutation –types and significance.

Unit 4 :

Microbial ecology: Introduction and types of interaction, extremophiles and their significance Aquatic Microbiology: Introduction and scope of aquatic microbiology, aquatic environment as habitat for microorganisms - bacteria, cyanobacteria, fungi, algae, parasites and viruses; distribution of microorganisms and their biomass in rivers, lakes, sea and sediment. Influence of physical, chemical and biological factors on aquatic microbes. Microbial biofilms.

Unit 5 :

Role of microbes in the production and breakdown of organic matter. Role of microbes in sedimentation and mineralization process. Nutrient cycles-carbon, nitrogen, sulphur, phosphorus, iron, and manganese cycles. Sewage microbiology, self-purification in natural waters, sewage treatment, drinking water microbiology, sanitary quality of water for aquaculture, bioremediators. Economic significance of aquatic microbes.

Practical

Sampling and processing of samples for microbiological investigation. Enumeration of microorganisms associated with finfish, shellfish, water and ice. Testing of water for potability. Isolation and identification of pathogenic bacteria associated with fish and fishery products - *Vibrio cholerae, Vibrio parahaemolyticus, E. coli*, *Salmonella*, *Listeria monocytogenes* and faecal streptococci. Biochemical tests for characterization of bacteria. Molecular methods for the detection of pathogenic microorganisms. Determination of MIC and MCC of chemical preservatives.

8. FS 105 Soil and water Chemistry (2+1)

Theory

Unit I:

Analytical chemistry: principles, applications and types. Classical methods of analytical chemistry, volumetry and gravimetry. Solutions: Standard solutions, titration, indicators, dilute solutions, units of concentration: standard curve; nomograph.

Unit II:

Chemistry of water: the water molecule, properties of pure water, fresh water and sea water. Composition of waters: surface water, ground water and sea water. Dissolved gasses: Factors affecting natural waters. Acid, base, salts: Hydrogen ions, modern concept of pH and buffer.

Water analysis: collection and preservation of water samples. Measurement of temperature. transparency, turbidity, determination of pH, electrical conductivity, salinity, chlorinity, total solids (TDS, TSS, TVS, TVDS), dissolved oxygen, free carbon dioxide, total alkalinity, total hardness, Calcium, Magnesium, Inorganic Nitrogen (Ammonium and Nitrate) and phosphorus. Water quality criteria/ requirements for Aquaculture.

Unit III:

Soil Chemistry: origin and nature of soils. Physical properties of soil; soil colour, texture, structure, pore size, bulk density, water holding capacity. Soil types and their distribution. Soil chemistry: soil colloids, cation exchange, organic carbon, Carbon - Nitrogen ratio, soil fertility. Soil reaction: acidity, alkalinity, conductivity, redox - potential.

Unit IV:

Submerged soils: wet lands, peat soils, fluxes between mud and water, methane and hydrogen sulphide formation. Saline soils, Alkali soils, acid sulphate soils, iron pyrites, soil reclamation. Soil analysis: collection and preparation of soil samples. Determination of soil texture, water holding capacity, pH, conductivity, organic carbon, nitrogen, phosphorus, lime requirement.

Unit V:

Soil and water amendments: lime manures, fertilizers, micronutrients, zeolites, alum, gypsum. Environmental ameliorative: chlorination, deodorizers, bacterial formulation. Soil quality criteria/ requirements for aquaculture.

Practicals:

Principles of Titrimetry, Gravimetry, Potentiometry, Conductometry, Refractometry, Colourimetry, Turbidimetry, Spectrophotometry (UV, Visible, Flame, AAS), computerized instrument system. Demonstration: demonstration of laboratory glass wares and equipment used in water and soil analysis. Water analysis: measurement of temperature, turbidity, determination of pH and EC. Determination of salinity, Chlorinity, Total solids, Redox potential, DO, Free CO2. Determination of total alkalinity, hardness. Determination of inorganic nitrogen, and phosphorus Soil analysis: Determination of soil texture, soil pH, conductivity, soil available nitrogen, available phosphorus, and organic carbon.

9. Swimming 1 (0+1)

Practicals:

History, hazards in water and safety precautions; pool maintenance and water quality control. Learning swimming, understanding and practice of ducking the head, kicking action, holding breath under water and various strokes (free style, breast stroke, butterfly, back stroke); competitive swimming-relays and medleys, lap time practice, swimming and floating aids and their uses; diving - styles of diving, rules, regulations and precautions. Methods of life saving in water; Boating, canoeing and sailing: types, maintenance, skill development, rules and regulations and practice.

II Semester Course Syllabus for 2020-21 Batch

1. FS - 110 FRESHWATER AQUACULTURE 3 (2+1)

THEORY

Unit – I

Major species cultured, production trends and prospect in different parts of the world. Freshwater aquaculture resources-ponds, tanks, lakes, reservoirs etc.

Unit – II

Nursery, rearing and grow-out ponds preparation and management-control of aquatic weeds and algal blooms, predatory and weed fishes, liming, fertilization/manuring, use of biofertilizers, supplementary feeding. Water quality management.

Unit – III

Selection, transportation and acclimatization of seed. Traits of important cultivable fish and shellfish and their culture methods-Indian major carps, exotic carps, air breathing fishes, cold water fishes, freshwater prawns, mussels.

Unit – IV

Wintering ponds, quarantine ponds and isolation ponds. Sewage-fed fish culture. Principles of organic cycling and detritus food chain. Use of agro-industrial waste and biofertilizer in aquaculture.

Unit – V

Composite fish culture system of Indian and exotic carps-competition and compatibility. Exotic fish species introduced to India. Culture of other freshwater species. Medium and minor carps, catfish and murrels. Species of fish suitable for integrated aquaculture. Integration of aquaculture with agriculture/horticulture. Integration of aquaculture with livestock. Cultivation of aquatic macrophytes with aquaculture (makahana). Paddy cum Fish/Shrimp Culture.

PRACTICALS

Preparation and management of nursery, rearing and grow-out ponds. Study on effect of liming, manuring and fertilization on hydrobiology of ponds and growth of fish and shellfishes. Collection, identification and control of aquatic weeds, insects, predatory fishes, weed fishes and eggs and larval forms of fishes. Algal blooms and their control. Estimation of plankton and benthic biomass. Study of contribution of natural and supplementary feed to growth. Workout of economics of different culture practices. Estimation of live-stock requirement / Unit in integrated aquaculture Design of paddy plot for paddy-cum-fish culture. Design of Fish and Shrimp Culture, livestock shed on pond embankment, Economics of different integrated farming systems.

2. FS 111 AQUACULTURE IN RESERVOIR 2 (1+1)

THEORY

Unit – I

Definition of reservoirs in India; nature and extent of reservoirs, topography and species diversity; importance of morpho-edaphic index in reservoir productivity and classification; factors influencing fish production; trophic phases in reservoir; pre-impoundment and post-impoundment stages and their significance in establishment of reservoirs fisheries.

Unit – II
Salient features of reservoir limnology and their significance to fisheries development; management of small, medium and large reservoirs; present status and future prospects in reservoirs fish production.
Unit – III
Fisheries of some important reservoirs; recent advances in reservoirs fisheries management; conservation measures in reservoir fisheries. Fish stocking in Reservoirs
Unit – IV
Role of cage and pen culture in enhancement of fish production from reservoirs; history of cage culture, advantages of cage culture; selection of suitable site of cage culture; cage materials, designs, shape, size and fabrication; cage frames and supporting system. Integration of cage culture with other farming systems.
Unit – V
History of pen culture, pen materials, fabrication; breeding of fish in pen; rearing of spawn in pen; grow-out from pens. Suitable species for culture in cages and pens; constraints in cage and pen culture; economics of cage and pen culture.

PRACTICALS
Preparation of charts on the present situation of reservoirs fisheries productivity; detailed case studies of selected reservoirs on the changing trends in capture fisheries profile; drawing inferences from the analysis of data; suggestions for the sustainable development of reservoirs fisheries. Case studies on cage and pen culture; field visit to cage and pen culture site to acquaint with construction details and operation.

3. FS 112 Taxonomy of Shellfish 2 (1+1)

Theory
Unit I
Study of external morphology and meristic characteristics of crustacean and mollusca.

Unit II
Major taxa of inland and marine crustaceans up to family level.

Unit III
Major taxa of inland and marine molluscan up to family level.

Unit IV
Classification of commercially important crustaceans species of India.

Unit V
Classification of Commercially important molluscan species of India.

Practicals
Study of external morphology. Collection and preservation of commercially important prawns, shrimps, crabs, lobsters, bivalves, gastropods, cephalopods from natural habitats. Field visits for collection of commercially important shellfishes. Identification of important crustaceans and molluscs.

4. Anatomy and Biology of Shellfish 2(1+1)

Theory

UNIT I

Study of external and internal organization of commercially important crustaceans and mollusks.

UNIT II

Digestive, respiratory, circulatory, nervous and reproductive systems

UNIT III

Food and feeding habits, length – weight relationship.

UNIT VI

Age and growth determination by direct and indirect methods.

UNIT V

Growth, moulting, Reproductive biology, larval stages.

Practicals

Study of Internal Organs commercially important crustaceans and mollusks. Study of Digestive, respiratory, circulatory, nervous and reproductive systems. Study of food and feeding habits - analysis of gut contents, age and growth, length - weight relationship and condition. Reproductive biology: maturity stages, spawning periodicity, fecundity and larval stages.

5. Inland Fisheries 3 (2+1)

Theory

Unit I

Freshwater fishery regions of the world and their major fish species composition. Global inland fish production data. Capture fishery resources of India.

Unit II

Potential of inland water bodies with reference to respective state. Problems in the estimation of inland fish catch data. Fishing crafts and gears.

Unit III

Major riverine and estuarine systems of India.

Unit IV

Major brackish water lakes and their fisheries. Flood-plain capture fishery- present status of their exploitation and future prospects.

Unit V

Fisheries of major reservoirs / natural lakes of India. Cold water fisheries of India.

Practicals

Analysis of species composition of commercial catches at landing and assembling centers, sampling and familiarization of commercially important groups. Observations and experimental operations of selected fishing crafts and gears in inland / estuarine waters. Maintenance of records on catch data. Visit to Dept. of fisheries, lakes and reservoirs, net making yards.

6. FS 115Limnology (2+1)

Theory

Unit: I

Introduction to limnology: inland water types, their characteristics and distribution; ponds and lakes; streams and rivers; dynamics of lentic and lotic environments. Lakes - their origin and diversity. Famous lakes of the world and India.

Unit: II

Nature of lake environment; morphometry, physical and chemical conditions and related phenomena; biological relations: influence of physical and chemical conditions on living organisms in inland waters. Plankton: planktonic organisms;

Unit: III

Classification of plankton; distribution of plankton: geographic, vertical, horizontal and seasonal distribution of phytoplankton and zooplankton; seasonal changes of body form in planktonic organisms; food of planktonic organisms; primary productivity: Aquatic plants: characteristics, classification, zonation, seasonal variations, quantity produced chemical composition distribution in different waters, limnological role.

Unit: IV

Nekton: composition, distribution, movements. Benthos: classification; periphyton; zonation; distribution; movements and migration; seasonal changes in benthos, profundal bottom fauna. Biological productivity: circulation of food material; classification of lakes based on productivity; laws of minimum; biotic potential and environmental resistance;

Unit: V

Quantitative relationships in a standing crop; trophic dynamics; successional phenomena; indices of productivity of lakes; artificial enrichment. Lotic environments: running waters in general; physical conditions; classification of lotic environments, biological conditions; productivity of lotic environments. influence of currents; plant growth; plankton; nekton; benthos; temporary and head waters streams; ecological succession.

Practical:

Morphometry of lakes, ponds and streams. Determination of physical characteristics of lentic water bodies. Determination of chemical characteristics of lentic water bodies. Determination of physical characteristics of lotic water bodies. Determination of chemical characteristics of lotic water bodies. Collection and identification of fresh water phytoplankton. Enumeration and biomass estimation of freshwater phytoplankton. Estimation of primary productivity in fresh water bodies. Collection and identification of fresh water zooplankton. Enumeration and biomass estimation of fresh water zooplankton. Collection and identification of benthos from lakes and ponds, streams and canals. Enumeration and biomass estimation of benthos from lakes, ponds, streams and canals. Collection and identification of nekton/aquatic insects from freshwater bodies. Collection and identification of aquatic plants from different fresh water bodies. Methodology for collection and identification bacteria in freshwaters bodies. Enumeration and biomass estimation of bacteria in freshwater bodies.

7. FS 116 Marine Biology (2+1)

Theory

UNIT I

Introduction to Marine Biology: Divisions of marine environment- pelagic, benthic, euphotic, aphotic divisions and their subdivisions. Life in oceans - general account of major groups of phytoplankton, sea weeds, major zooplankton groups.

UNIT II

Environmental factors affecting life in the oceans-salinity, temperature, light, currents, waves, tides, oxygen, and carbon dioxide. Vertical migration of zooplankton, Phytoplankton-Zooplankton relationship, geographical and seasonal variation in plankton production, plankton and fisheries.

UNIT III

Inter tidal ecology: Rocky shore, sandy shore and mud flats, zonation, communities, and the adaptation.

UNIT IV

Mud banks: formation, characteristics, Estuaries: Classification, Physico-chemical factors, Biota and productivity, examples of some Indian Estuaries. Boring and fouling organisms.

UNIT V

Nekton outline, composition of nekton, habitats of nekton. Bioluminescence and indicator species, Blooms, Red tides: cause and effects.

Practicals:

Study of common instruments used for collection of phytoplankton, zooplankton and benthos. Collection, preservation and analysis of phytoplankton, zooplankton, sea weeds, Collection preservation and analysis of inter tidal organisms

8. FS 117 Food Chemistry and Fish in Nutrition 3 (2+1)

Theory

Unit 1

Composition of food and nutritional value; Moisture in foods.Biological oxidation, electron transport chain, P/0 ratio, oxidative phosphorylation. Carbohydrates - Naturally occurring polysaccharides in foods, Seaweed polysaccharides: Sources and their uses; Browning reactions – enzymatic and non-enzymatic; Lipids - metabolism of lipids, oxidation of fatty acids; lipoproteins - VLDL & HDL and their importance.

Unit 2

Proteins - metabolism, deamination, decarboxylation, metabolic fate of amino acids, nitrogen balance, deamination reactions and nitrogen excretion with special reference to fish; Fish muscle proteins - chemical changes in muscle during contraction; Proteins in foods - role in hydration, native and denatured proteins, gel formation, functional properties of proteins, changes during heat treatment and processing, texturised proteins.

Unit 3

Nutritive value of foods - Energy value and energy requirements and their estimation; Water, electrolytic and acid-base balance; Nutritive value of proteins – Concepts of Biological Value, Protein Efficiency Ratio, digestibility coefficient, NPU values, pepsin digestibility; Role of dietary fibre in human nutrition.

Unit 4

Composition of fish with emphasis on nutritional value; Amino acids of fish and shellfishes - Importance of essential amino acids. Fish lipids: fatty acids, nutritional quality; Role of fish lipids in human nutrition; Non-protein nitrogen substances in fishes; Vitamins in fish - water soluble, fat soluble, significance in human nutrition; Minerals in fish - micro- and macro-elements, trace elements, significance in human nutrition. Other functional bio-molecules infish:peptides, collagen and squalene; Effect of different kinds of cooking fish - curry, frying, steaming, smoking, fermentation on nutrition value.

Unit 5

Chemistry of taste, flavour and odour components in foods - flavour intensifiers, synthetic flavouring substances. Taste of fish and shellfish. Food additives - types and their chemical nature, emulsifiers and antimicrobial additives, sequestrants, flavor potentiators, surface active agents, non-nutritive sweeteners, colour additives in food. Assessment of quality of food by instrumental and physical method.

Practicals

Estimation of moisture, crude protein, fat, ash (including acid soluble) in fish. Determination of energy value of fish. Estimation of glucose and salt content in foods. Colorimetric method of estimation of proteins and carbohydrates. Use of pH meter. Estimation of dietary fibre in foods. Estimation of freshness quality indices such as TVB-N, TMA, alpha-amino nitrogen, PV, FFA, TBA value of fish.

9. FS 118. Information and Communication Technology (1+1)

Theory

Unit -I

IT and its importance. IT tools, IT-enabled services and their impact on society. Computer fundamentals. Hardware and software; input and output devices.

Unit- II

Word and character representation; features of machine language, assembly language, high-level language and their advantages and disadvantages; principles of programming-algorithms and flowcharts.

Unit -III

Operating systems (OS) - definition, basic concepts, introduction to WINDOWS and LINUX Operating Systems.

Unit – IV

Local area network (LAN), Wide area network (WAN), Internet and World Wide Web, HTML and IP. Introduction to MS Office - Word, Excel, Power Point.

Unit -V

Audio visual aids - definition, advantages, classification and choice of A.V aids; cone of experience and criteria for selection and evaluation of A.V aids; video conferencing. Communication process, Berlo' s model, feedback and barriers to communication

Practical

Exercises on binary number system, algorithm and flow chart; MS Word; MS Excel; MS Power Point; Internet applications: Web Browsing, Creation and operation of Email account; Analysis of fisheries data using MS Excel. Handling of audio visual equipments. Planning, preparation, presentation of posters, charts, overhead transparencies and slides. Organization of an audio visual programme.

10. FS 119* Physical Education, First Aid & Yoga Practices 1 (0+1)

Practicals

Introductiontophysicaleducation:definition,objectives,scope,history, development and importance; physicalculture; Meaning and importance of Physical Fitness and Wellness; Physical fitness components -speed, strength, endurance, power, flexibility, agility, coordination and balance; Warming up - General & Specific & its Physiological basis; Test and measurement in physical education; Training and Coaching - Meaning & Concept; Methods of Training; aerobic and anaerobic exercises; Calisthenics, weight training, circuit training, interval training, Fartlek training; Effects of Exercise on Muscular, Respiratory, Circulatory & Digestive systems; Balanced Diet and Nutrition: Effects of Diet on Performance; Physiological changes due to ageing and role of regular exercise on ageing process; Personality, its dimensions and types; Role of sports in personality development; Motivation and Achievements in Sports; Learning and Theories of learning; Adolescent Problems & its Management; Posture; Postural Deformities; Exercises for good posture.

Yoga; Introduction to - Asanas, Pranayam, Meditation and Yogic Kriyas; Role of yoga in sports; Governance of sport in India; Important national sporting events; Awards in Sports; History, latest rules, measurements of playfield, specifications of equipment's, skill, technique, style and coaching of major games (Cricket, football, table Tennis, Badminton, Volleyball, Basketball, Kabaddi and Kho-Kho) and Athletics Need and requirement of first aid. First Aid equipments and upkeep. Handling and transport of injured I traumatized persons. Emergency procedure for suffocation, demonstration of artificial respiration. Treatment of injuries (wounds and bleeding)- methods of dressing and bandages; first-aid procedure for injured bones. Handling unconsciousness; Treatment of bums and scalds. Emergency procedure for poisoning with special references to snake bite. Injuries I accidents in fishing, fish processing factories, chemical laboratories and their treatments. Shock injuries to muscles and joints and treatments. Sports injuries and their treatments.

-Time Table

TIME TABLE FOR FIRST SEMESTER

Days	9.16 am 10.05 am	10.15 am 11.05 am	11.15 am 12.05 pm	12.15 pm 1.05 pm	1.06 pm 2.00 pm	2.00 pm 2.50 pm	3.00 pm 3.50 pm	4.00 pm 4.50 pm
Monday					**Lunch break**			
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday	Swimming					Library		

TIME TABLE FOR SECOND SEMESTER

Days	9.16 am 10.05 am	10.15 am 11.05 am	11.15 am 12.05 pm	12.15 pm 1.05 pm	1.06 pm 2.00 pm	2.00 pm 2.50 pm	3.00 pm 3.50 pm	4.00 pm 4.50 pm
Monday					**Lunch break**			
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday	Physical Education					Library		