



STUDENTS HANDBOOK



AMRITA
VISHWA VIDYAPEETHAM

School of
Biotechnology



Prayer

- ॐ सहनाववतु सहनौ भुनक्तु ।
सह वीर्यं करवावहै ।
तेजस्वि नावधीतमस्तु ।
मा विद्विषावहै ॥
- ॐ शान्तिः शान्तिः शान्तिः
- ॐ असतो मा सद् गमय ।
तमसो मा ज्योतिर्गमया ।
मृत्योर्मा अमृतं गमया ॥
- ॐ शान्तिः शान्तिः शान्तिः
- ॐ सर्वेषां स्वस्तिर्भवतु ।
सर्वेषां शान्तिर्भवतु ।
सर्वेषां पूर्णं भवतु ।
सर्वेषां मंगलं भवतु ॥
- ॐ शान्तिः शान्तिः शान्तिः
- ॐ लोकाः समस्ताः सुखिनो भवन्तु ।
लोकाः समस्ताः सुखिनो भवन्तु ।
लोकाः समस्ताः सुखिनो भवन्तु ॥
- ॐ शान्तिः शान्तिः शान्तिः
- ॐ पूर्णमदः पूर्णमिदं
पूर्णात् पूर्णमुदच्यते ।
पूर्णस्य पूर्णमादाय
पूर्णमेवावशिष्यते ॥
- ॐ शान्तिः शान्तिः शान्तिः
- ॐ श्री गुरुभ्यो नमः
हरिः ॐ
- May He protect us, may He nourish both you and me
May both you and I be given the energy we need. May
this study make us both illuminated.
May we never hate each other.
Om! Shanti! Shanti! Shanti!
- Oh God! Lead me from untruth to truth.
Lead me from darkness to light.
Lead me from death to immortality.
Om! Shanti! Shanti! Shanti!
- May all be in perfection.
May all be in peace.
May all be in contentment.
May all be in auspiciousness.
Om! Shanti! Shanti! Shanti!
- Let the whole world be happy and contented
(3 times)
Om! Shanti! Shanti! Shanti!
- That is whole, this is whole
From the whole arises the whole
Removing the whole from the whole
The whole alone remains
Om! Shanti! Shanti! Shanti!
- Salutations to the Guru!
Hari, Om!

AMRITA SCHOOL OF BIOTECHNOLOGY

Name :

Roll No. : Branch:

Date of Birth : Blood Group:

Address :

Phone No. :

E-mail :

Savings Bank A/c No.:

Contact No. for Emergency :

SCHOOL OF BIOTECHNOLOGY

Amrita Vishwa Vidyapeetham, Amritapuri Campus,

Clappana P.O., Kollam – 690525, Kerala, India

Telephone: (0476) 280 3127

E-mail: biotech@am.amrita.edu

URL: www.amrita.edu/biotech

AMRITA VISHWA VIDYAPEETHAM

ACADEMIC ADMINISTRATION

Chancellor	: Sri Mata Amritanandamayi Devi
President	: Swami Amritaswarupananda Puri
Pro-Chancellor	: Brahmachari Abhayamrita Chaitanya
Vice-Chancellor	: Dr. P. Venkat Rangan
Registrar	: Dr. Sankaran
Dean (School of Biotechnology, Faculty of Science)	: Dr. Bipin Nair

CAMPUS ADMINISTRATION

Director (Amritapuri Campus)	: Br. Sudeep
Associate Dean (Amritapuri Campus)	: Dr. Balakrishnan Shankar

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AMMA – OUR INSPIRATION

“Knowledge is like a river. Its nature is to constantly flow. Wherever it can flow, it does so, nourishing culture. On the other hand, the same knowledge, if devoid of values becomes a source of destruction for the world. When values and knowledge become one, there can be no more powerful instrument for the welfare of humankind. Today, physicists have been begun investigating the possibility that the essential substratum of the manifest universe and the individual are one and the same. We are standing on the threshold of a new era wherein material science and spirituality will move forward hand in hand.”

AMMA's PRAYER

“It is AMMA's prayer that we develop the expansive-mindedness to embrace both scientific knowledge and spiritual knowledge and spiritual wisdom. We can no longer afford to see these two streams of knowledge as flowing in opposite directions. In truth, they complement one another. If we merge these streams, we will find that we are able to create a mighty river – a river whose waters can remove suffering and spread life to all of humanity”

AMMA – OUR INSPIRATION

Satguru Sri Mata Amritanandamayi Devi, affectionately called AMMA by Her devotees, is the embodiment of love and compassion. She devotes every moment of Her life for the suffering humanity. AMMA warmly embraces thousands of people day after day, wiping their tears, offering solace and giving them Her divine guidance. AMMA's compassion crosses all the barriers of nationality, race, caste and religion. AMMA recommends the path of selfless service and love, exemplified by Her own life.

MATA AMRITANANDAMAYI MATH

The Math was established to disseminate the message of Amma – universal love and selfless service, AMMA says. “There are two kinds of education – education for life and education for livelihood”. It is Her wish to bring the two together, creating professionals in all fields with skills, mental strength and the heart to uplift the world. With this vision the Math has established a vast network of more than 60 educational facilities throughout India, including Schools in Engineering, Business, Medicine, Pharmacy, Biotechnology and Science & Humanities that provide the most modern education while making the students imbibe the traditional values of Indian Culture.

AMRITA VISHWA VIDYAPEETHAM

Amrita Vishwa Vidyapeetham, with its head quarters in Ettimadai, Coimbatore, is one of the youngest group of educational institutions in India to have been granted the University

status u/s 3 of UGC Act 1956. This status was conferred on it by the Ministry of Human Resources & Development(MHRD), Government of India after meticulous inspection by the teams from University Grants Commission (UGC), Medical Council of India (MCI) and All India Council for Technical Education (AICTE).

Amrita Vishwa Vidyapeetham has been awarded “A” grade (the highest possible grade) by National Assessment and Accreditation Council (NAAC) in 2009 and has been re-accredited again with ‘A’ grade in 2014. Amrita is also included in ‘Category 1’ by MHRD after the “Tandon Committee review” of Deemed Universities.

Amrita Vishwa Vidyapeetham is one of the very few Universities to have a multi-campus, multi-disciplinary character at the outset, offering education in fourteen disciplines including Engineering, Business and Medicine through a dedicated and qualified faculty. Amrita is the nation's first multi-campus university interlinked via satellite facilitation e-Learning that transcends limitations of time and space. Amrita offers value-based education through its constituent schools. The international advisory board and the academic council comprising eminent academicians and industry stalwarts guide Amrita in its effort to achieve excellence in research and education.

AMRITAPURI CAMPUS

The Amritapuri Campus, is nestled in the picturesque village of Vallikavu, across the famed and beautiful backwaters of Kerala. Schools in Amritapuri, with its proximity to the International Headquarters of the Mata Amritanandamayi Math, has the advantage of basking in AMMA's effulgent presence. Seeking guidance and inspiration from its Chancellor, Satguru Sri Mata Amritanandamayi Devi, the campus provides students a learning environment that harmoniously blends science and spirituality. The Campus is spread over more than 105 acres of land with more than a million sq.ft. of built-up area comprising of academic blocks, student hostels and other amenities. About 85% of student population are hostellers. The vicinity and proximity of Amma's Ashram provides students a better opportunity to nurture values and self discipline. The campus provides all the modern amenities which make campus life a memorable one. With everything from yoga classes to the full-fledged cafeteria, the students have exposure to a world-class university education. The life in the campus is exciting, stimulating, demanding, challenging and downright hard working. Students are encouraged to participate in the social service activities initiated by the ashram, which help them to imbibe the spirit of selfless service.

Schools on the Campus

1. Amrita School of Arts & Sciences
2. Amrita School of Ayurveda
3. Department of Business
4. Amrita School of Engineering
4. Amrita School of Biotechnology

CREDIT SYSTEM OF EVALUATION*

Introduction

Amrita School of Biotechnology follows a credit-based system for evaluation under a semester pattern. This allows flexibility on courses, time frame, teaching and learning, evaluation procedures and mobility.

Academic year and Semesters

An academic year (July to June) consists of two semesters and possibly a summer term. Each semester has a minimum of 80-85 teaching days and about 8-10 days for the end semester examinations.

Credit based Academic System

A credit-based system is a systematic way of describing an educational programme by attaching credits to its components. Credit is a way of quantifying the knowledge content. When enough credits are accrued or earned, the programme is completed successfully.

Credit system makes educational programmes easy to understand and compare both nationally and internationally. It facilitates mobility, academic flexibility and universality and helps universities to organize as well as reorganize their study programmes quickly. It can be used across a variety of programmes and modes of delivery.

Programme

An educational programme specializing in a specific area covers many knowledge segments. An example is the B.Sc. programme in Biotechnology.

Allotment of Credits

Credits are allocated to the knowledge segments giving due importance to their weightings. The sum of the credits allotted to the knowledge segments decides the programme credits. The programme is successfully completed from the academic angle, once the specified programme credits have been earned.

Example: (For a B.Sc. Biotechnology Programme)

Knowledge Segment	Category	Credits
Language, Cultural Education & Soft Skills	S	17
Mathematics, Physics & Chemistry	M	12
Core Lifesciences	C	73
Laboratory Courses	L	18
Project/Dissertation Thesis	P	7
Total Credits for programme completion		127

Under each knowledge component, the credits are again distributed among the identified courses. The number of courses and the credits allocated to each, could vary. However, the student need to get only the minimum credits in each of the components as mentioned in the example and a prescribed minimum total number of credits for successfully completing

the academic programme. Additional credits taken will be an added advantage from the professional angle, but not from the academic requirements.

Course Credits

Each course, except for a few special courses, has a certain number of credits assigned to it depending on the lectures, tutorials, laboratory works and contact hours in a week. Lectures (L) have one credit per each contact hour in a week. Laboratory and Practical (P) classes carry one credit for two / three contact hours in a week. Projects, fieldwork etc are given a specific number of credits without any direct reference to the hours spent.

Example:

a) A Course on Plant Biology

Number of Lecture hours per week – 4 Credits: 4

b) A Laboratory Course on Microbiology:

Number of Laboratory hours per week -3 Credits: 2

These are normally indicated in the curriculum, as follows:

Category	Course Code	Course Title	Hours per week		Credits
			L	P	
C	BIO223	Plant Biology	4	0	4
L	MIC281	Microbiology Lab	0	2	2
P	BIO399	Project	0	20	7

Curriculum

Curriculum is the framework of an academic programme. In the credit based system, curriculum will specify the category, course code, course title, course delivery (Lectures / Lab / Project) and the credits. Curriculum is presented semester-wise for convenience and will take into account all the knowledge segments and their assigned credits. The total credits to be earned for programme completion will be specified clearly. Our curriculum has the following credit allocations among the knowledge segments:

B.Sc. Biotechnology

Knowledge Segments	Category Admissions	2017 Admissions onwards
Language, Cultural Education & Soft Skills	S	17
Mathematics, Physics & Chemistry	M	12
Core Lifesciences	C	73
Laboratory Courses	L	18
Project/Dissertation Thesis	P	7
Total credits needed for programme completion		127

Knowledge Segments	Category Admissions	2017 Admissions onwards
Language, Cultural Education & Soft Skills	S	17
Mathematics, Physics & Chemistry	M	12
Core Lifesciences	C	72
Laboratory Courses	L	20
Project/Dissertation Thesis	P	7
Total credits needed for programme completion		128

For the **M.Sc. programmes**, a total of 76 credits(Biotechnology), 76 Credits (Microbiology), 78 credits(Bioinformatics) have to be earned. 10 credits of project work have to be earned additionally for the successful completion of the programme.

Credit System Flexibility

Credit system allows flexibility on the selection of courses and time frame for completion of the programme. It also provides a good blend of teaching and learning, ensuring credible evaluation procedures and student mobility. The credit system is evolved around the teacher and the taught.

The prominent features of the credit system cover continuous evaluation of students' performance through well-planned assessment procedures and the flexibility to allow a student to progress at a pace suited to his / her individual ability and convenience, subject to certain conditions. While a prescribed minimum number of credits are to be earned for the award of degree, a minimum level of performance is necessary for progressing with the studies.

Class Counsellors

Each class will have one/two class counsellor(s) to help and guide the students in the academic process, solve their problems, if there is any, as also to provide counselling and guidance for the needy. They will also monitor the progress of the students in their studies and report the same to their parents periodically.

Checks and Controls in the Credit System

To achieve purposeful flexibility, a good system control is needed. Hence there are specific rules and procedures to be adhered to in the credit system. Certain courses in each knowledge segment are identified as core courses and others as electives. There is mandatory registration and credit earnings requirements for core courses. Electives are free to be chosen from those offered, for registration. While it is mandatory to register for the elective courses, failure to earn credits in them does not necessarily mean repeating the courses. Another elective course may be permitted as a replacement course.

Certain courses are pre-requisites for advanced courses. For example, Molecular Biology could be a pre-requisite for Genetic Engineering. This means that the student cannot take Genetic

Engineering unless he/she has completed Molecular Biology. Here the term completion means that the student has registered for the course, done all assignments and tests, attended the class with 75% or more attendance and has written the end semester examination. The student need not have to earn credits (i.e., pass the course) for fulfilling the pre-requisite needs.

How to go about with the credit system?

The first step, in the credit based system, is the registration for the various courses. For first semester, registration is done at the beginning of the semester. In the subsequent semesters (2nd semester onwards), registration will be done at the end of the previous semester. The students have to enroll for the courses, earlier registered, at the start of the semester.

During enrolment, one can drop the earlier registered courses or add new courses, with the approval of the faculty advisor / Counsellor and the concurrence of the Dean of the School.

All students will have to register before a specified date. However for valid reasons, late registration with a fine will be permitted up to a specified date. These dates will be announced well in advance.

Registration

Students will be made aware of all information on the courses being offered in that semester. In the first few semesters there may not be much of a choice to decide on. As one progresses, the flexibility will become more evident. Students have to consult the faculty members who have been identified as their advisors, for advice and assistance in registration.

Minimum and Maximum credits for which one can register in a semester is specified in the relevant curricula. Any deviations will need the approval from the Dean, School of Biotechnology.

A student is permitted to register / enroll for courses only if he / she has:

- Paid all fees and has no dues to the university
- Has maintained a progress, as required by the university
- Has completed any pre-requisite courses prescribed
- Has no disciplinary action pending against him / her

Conduct of Courses

Credit system encourages learning. Apart from regular class lectures, students will be given major assignments which will form a part of the course and will also be considered for evaluation. Seminars, design and other assignments, technical paper writing, quizzes etc. could also be a part of the course being conducted.

The teacher offering the course will evaluate the performance of the students at regular intervals and in the end semester examination. A class committee comprising all teachers handling all the courses for the class, the class counsellors and students' representatives will monitor the conduct of all the courses of a class.

The faculty member offering a course will decide on the course plan, evaluation procedure and any midway correction to be taken. Decisions taken by this committee will be informed to all students who have registered for the course. The class / course committees without

students' representative will finalise the grades and results for the class / course.

It is mandatory for the students to appear for the end semester examination / supplementary examination for the completion of the course.

If the Project work is not satisfactory, the student will be asked to continue the project till he / she completes it satisfactorily.

Grace Marks

At Amrita Vishwa Vidyapeetham achievements in extra curriculum activities are rewarded as a grace mark with a maximum of 10 marks following are the categories of extracurricular activities where students can score grace marks.

SPORTS & GAMES	-10
CULTURAL EVENTS	-10
TECHNICAL COMPETITIONS	-10
SEVA ACTIVITIES	-5

Students must take initiative to apply for the process of awarding grace marks.

Attendance

- Additionally, a 5% weightage is given to attendance above the total weightage
- All students are required to attend 100% of the classes.
- Leave of absence could be applied for in the form provided in the School website/ Store and will be granted by Counsellor only in genuine cases.
- Two types of leave are permitted, namely, Duty Leave, and other Leaves.
- All leaves (except duty leave) put together, as sanctioned by the Counsellor should not exceed 25% of the total classes, for eligibility to appear for the end semester examination.
- **Marks for attendance**
 - 5 marks for 96-100% attendance
 - 4 marks for 91-95% attendance
 - 3 marks for 86-90% attendance
 - 2 marks for 80-85% attendance
 - 0 mark for 75-79% attendance
 - 'FA' for < 75% attendance

Students representing the University events either within the campus or outside the campus will be marked as present (OD). However, students should submit an OD form approved by Chairperson/Dean prior to attending the event. OD form submitted after the event will not be entertained and the student will be marked absent.

Assessment Procedure

The academic performance of each student in each course will be assessed on the basis of Internal Assessment (including Continuous Assessment) and an end-semester examination.

Normally, the teachers offering the course will evaluate the performance of the students at regular intervals and in the end-semester examination.

In theory courses (that are taught primarily in the lecture mode), the weight for the Internal Assessment and End-semester examination will be 50:50. The Internal assessment in theory courses shall consist of at least two periodical tests, weekly quizzes, assignments, tutorials, viva-voce etc. The weight for these components, for theory-based courses shall be 20 marks for the Continuous assessment, comprising of Quizzes, assignments, tutorials, viva-voce, etc. and 15 marks each for both the Periodical Tests.

At the end of the semester, there will be an end-semester examination of three hours duration, with a weight of 50 marks, in each lecture-based course.

In the case of laboratory courses and practical, the relative weight for Internal assessment and End-semester examination will be 80:20. The weight for the components of Internal assessment will be decided by the course committee/class committee at the beginning of the course.

Grading System

2017 Admissions onwards		
Grade Point	Grade	Rating
O	10	Outstanding
A+	9.5	Excellent
A	9	Very Good
B+	8	Good
B	7	Above Average
C	6	Average
P	5	Pass
F	0	Failed
FA	0	Failed due to lack of Attendance
I	-	Incomplete (Awarded only for Laboratory project courses)
W	-	Withheld

If the student secures 'F' grade in any of the courses, he/she can reappear for the supplementary exam.

If the student secures 'FA' grade in any of the courses, he/she has to re-register(redo) for the course when it is being offered next.

A student who has been awarded 'I' grade in the laboratory courses shall take up additional laboratory sessions during the first two months of the next semester and earn a pass grade, which will be reflected in the next semester's grade sheet.

If a student is absent for the end semester examination, he/she will be allowed to reappear on proper evidence for his/her absence.

Grade Point Average

Based on the credits for which the student has registered and the grades awarded, Semester Grade Point Average [SGPA] and Cumulative Grade Point Average [CGPA] are calculated.

$$\begin{aligned} \text{SGPA} &= \frac{\sum(C_i \times Gp_i)}{\sum C_i} \\ C_i &= \text{Credit for the } i^{\text{th}} \text{ course in that semester} \\ Gp_i &= \text{Grade point for the } i^{\text{th}} \text{ course} \\ \text{CGPA} &= \frac{\sum(C_i \times Gp_i)}{\sum C_i} \\ C_i &= \text{Credit for the } i^{\text{th}} \text{ course in any semester} \\ Gp_i &= \text{Grade point for the } i^{\text{th}} \text{ course} \end{aligned}$$

Grade Sheet

Grade sheet issued to the student at the end of the semester will contain the following information.

1. Name, Roll No., Grade Sheet No., Semester, Branch, Month and year of Examination.
2. Course Code, Course Title, Credits and Grade Obtained, Grade Points Earned for the courses registered.
3. Credits registered and earned during the semester.
4. Cumulative Credits earned and Grade Points.
5. SGPA.
6. CGPA.

Revaluation of Answer Papers

An aggrieved student can request for revaluation of answer script of the end semester examination, through a well laid out procedure. There will be revaluation fee for each paper. If the revaluation leads to a better grade, the revised grade will be awarded to the student and in such cases the revaluation fee will be refunded in full. Revaluation is allowed only for lecture-based courses.

Course Completion

A student is said to have successfully completed a course and earned the corresponding credits, if he / she has;

- Registered for the course.
- Put in 75% or more attendance in the course.
- Written the periodical tests and end semester examination.
- Obtained a pass grade D or above in the course.
- No disciplinary proceedings against him / her.

REMEDIAL MEASURES

Supplementary Examination

- Students with 'F' Grade may take the supplementary examination in a course up to a maximum of three additional attempts (excluding main end semester examination) carrying the previous internal assessment marks earned by them.

- Students failing to pass the course after two additional attempt shall henceforth appear for the supplementary examination for the entire 100 marks and the internal assessment marks earned by them in their regular registration shall not be considered.
- Grade Rule for supplementary examination: Supplementary exams will be evaluated against the most recent grade rule (whenever the course was offered recently during a regular semester)
- Fee for the supplementary examination will be Rs.300/- per paper during the regular duration of the program, after which the student shall pay Rs.1000 per attempt.
- Supplementary examinations will be scheduled after consequent end semester examinations. A failed student has an option to improve his/her end semester marks for a failed course whenever the same course is offered later.
- If a student, who is in the final semester of an academic program fail in any of the courses offered in that semester, he / she will be provided an option to appear for a supplementary examination during that semester holidays itself

Re-registration/Redo

A student who has not secured a pass grade in a course in the initial registration can register for the same course when offered next along with the junior batch. Students with FA grade are also permitted to register. Two chances of re-registration is allowed per course apart from the regular registration.

Contact Courses

Students in the final semester with one or two arrears with F grade(s) can register for the contact course, if offered. The contact course will run for 45 / 60 hours of contact classes depending on the credit load of the course. Students with FA grade in a given course cannot register for the course under this option.

Runtime Re-do Course

Students with F / FA grade in course can register for a runtime re-do course, if available, on the condition that the total number of credits registered in the semester shall not exceed 28 credits. Runtime re-do courses are run concurrently with a regular semester and would last a full semester.

Discipline

Every student is required to observe strict discipline and decorous behaviour both inside and outside the campus and should not indulge in any activity which may bring down the prestige of Amrita Vishwa Vidyapeetham.

A campus level disciplinary action committee will deal with any act of indiscipline of misbehaviour, unfair practice in the class / university examination etc., and its decision on the action to be taken shall be final. Serious acts of indiscipline may even attract penalty leading to expulsion from the University.

Award of the Degree

A student will be declared eligible for the award of the Degree, if he / she has:

- Registered and earned the credits for all the core courses and project work.
- Earned the minimum required number of credits for the branch of study as specified in the curriculum.
- Earned the specified number of credits in all categories.
- No disciplinary action pending against him / her.
- There are no outstanding dues against him / her.

Ranking

The ranking of the students in a batch at final stage is based on CGPA. Only those students who have passed all courses up to that stage in the first attempt are considered for ranking.

Students are eligible for final ranking, only if the programme is completed within the normal duration.

Classification of successful candidates

A student shall be considered to have successfully completed the programme, if he/she has -

- a) registered and successfully completed all the core courses and projects.
- b) earned the required minimum number of credits as specified in the curriculum corresponding to the branch of his/her study, within the stipulated time.
- c) Earned the specified number of credits in all the categories of courses.

Candidates, who have successfully completed the programme, shall be classified as follows:

- a) Candidates securing a CGPA of 8.00 and above – DISTINCTION.
- b) Candidates securing a CGPA between 6.50 and 7.99 – FIRST CLASS and the same be mentioned in the Degree Certificate.
- c) If the programme is completed after six(B.Sc.)/four(M.Sc.) semesters of study, the candidates securing a CGPA of 6.50 and above shall be classified to have completed the programme, only with FIRST CLASS.

GENERAL RULES AND REGULATIONS ON THE CAMPUS

1. Students are required to be punctual, polite, well-mannered and decently dressed.
2. Classes commence every day with a Universal Prayer of Vedic hymns. All the students shall reach their classrooms well before (8.40 a.m.). No student shall move around in the corridors during prayer. Students reaching the classrooms after prayer will be marked absent for the first period.
3. All students shall wear uniforms on all working days(except on Wednesdays and Saturdays) and for all campus events along with their ID cards.
4. ID's should be worn (around the neck) when they are on the campus.
5. On holidays and during non-working hours, they should wear decent dress on the campus and in the Mess Halls.
6. Day-scholars are not allowed to enter the Hostel without the permission of the Chief Warden.

7. Consumption of non-vegetarian food on the campus is prohibited.
8. Smoking, use of tobacco / tobacco products, consuming alcohol and use or possession of any intoxicant on the campus are strictly prohibited.
9. Unauthorised meetings, participation in political agitations and all types of demonstrations are prohibited on the campus.
10. Damage to University property will attract penalty with replacement cost.
11. Reading / possession / circulation of any vulgar or obscene material in any media is banned in the campus.
12. Possession of mobile phones is banned on the Campus. Any violation will lead to confiscation of the phones.
13. All students are expected to live in the hostel during their course. However local students who live with their parents within a radius of 30 kms from the campus will be permitted to come their homes.
14. Students are not permitted to live in rented houses, lodges either alone or in groups.
15. Students will arrive on time to the school and refrain from leaving early unless prior permission has been granted. Students who wish to stayback at the school after 6.00 p.m. shall get permission for the same from the Dean. They should also get a certificate from the staff in charge of the activity for which they are staying back clearly showing the time from and to which they were present in the college for that activity. This certificate will have to be produced at the hostel.
16. Students shall in general obtain a prior permission with a gate pass from the authorities for leaving the campus during class hours (8.40 a.m to 4.40 p.m.).
17. Students shall take responsibilities for all their belongings themselves.
18. Students shall bring to the campus only those articles required for academic or co-curricular activities. They shall not bring devices like stereos, walkman, radios, camera, musical instruments, etc. to the class unless otherwise a written permission has been obtained from the authority.

RAGGING IS A CRIMINAL OFFENCE AN IT IS BANNED ON THE CAMPUS

Ragging is a criminal offence. Ragging includes tormenting others by words or deed, playing rough jokes on others, engaging in rough play, physical assault or threat, use of physical force, verbal abuse and aggression, exhibiting indecent gestures and obscene behaviour, exposing fellow students and others to ridicule and contempt, violating the status, dignity and honour of fellow students and others, violating the privacy and rights of others and harassing or exhibiting riotous behaviour.

Students involved in ragging are liable for summarily expulsion from the Institution, with a note in his / her Transfer Certificate to that effect, and the case may also be referred to the Police. In such cases, the student will not be able to continue his / her studies not only in this Institution but also in any other institution.

UNIFORM AND DRESS CODE

1. All students shall wear uniforms on all working days along with their ID cards.
2. Uniform shall strictly conform to the pattern specified.
3. On, Wednesdays, Saturdays, holidays and during non-working hours, they shall wear decent dress in the campus and the Mess halls. Boys shall wear pants and shirt and girls shall wear sari or churidhar.
3. ID's shall be worn (around the neck) on all days.
4. Wearing clothing that is torn or has holes (even if unintentional) is not permitted.
5. Hair should be kept clean, well groomed and modestly styled.
6. Students should avoid costly ornaments and undue make-up. .
7. Apparel with provocative/suggestive language, or inappropriate advertising, is prohibited.
8. Any violation of the aforesaid rules will attract severe disciplinary action which may lead to the termination of the student from the Institution. In all academic or disciplinary matters, the decision of the authorities will be final.

FEES AND DEPOSITS

Tuition fees and all other fees should be paid before the specified date and receipt obtained thereof. Students who do not produce the receipt during enrolment will not be permitted to enroll for any of the courses. Refer pages 38-40 to know the details of the fee for all the programs and the online transaction methods.

Interpretation Clause

Related to any of the academic matters, whenever there arises any doubt or dispute on the interpretation of regulations or rules, the decision of the Academic Council will be final as well as binding on all concerned.

Amendment to Regulations

Notwithstanding anything stated above, the Amrita Vishwa Vidyapeetham reserves the right to modify any of the regulations, as deemed fit, from time to time.

CODE OF CONDUCT FOR HOSTEL RESIDENTS

All residents of the hostel are required to follow the rules stated below. University reserves the right to take disciplinary action in case of violation of these rules.

General Rules

1. At the time of admission of a student into the Hostel, each one is required to submit a duly filled Admission Form (contain personal details) and declaration form to Chief warden. Any change in information at any point of time has to be intimated to the Warden in writing.
2. Allotment of rooms shall be the sole discretion of the Hostel administration, which may allot the rooms either on first-come-first-served or any other basis, depending upon the situation, prevailing factors and objectives e.g. fostering cross-cultural relationships.

3. Residents shall respect the equal rights of their roommates.
4. If the status, on the basis of which an resident was allowed accommodation in the Hostel, changes during the period of stay in the Hostel, he/she is required to inform the Hostel Warden(s) immediately. Such student may be asked to vacate the Hostel if the Hostel Management finds that he/ she is no longer eligible for Hostel accommodation.
5. The students are entitled for accommodation in the Hostel as long as they are full time registered students. Accommodation will not be provided to any student whose registration is cancelled. Any student, whose name has been removed from the Rolls of the Institute, will automatically cease to be an resident of the Hostel. Such students shall immediately leave the Hostel.
6. All residents are required to maintain standards of behaviour expected of students of a prestigious Institution such as ours. They are expected to behave courteously and fairly with everyone inside and outside the Hostels and campuses.
7. Use of Powered vehicles by students inside the hostel has been banned.
8. Residents shall not stay away from the hostel without the written permission of the Chief Warden
9. All residents are required to produce, whenever asked, their valid identity cards issued to them by the Institute.
10. Ragging in any form is banned. Severe punishment, including expulsion from the Hall and the Institute, shall be imposed on any resident if he/she is found to have indulged in ragging.
11. Any resident, for that matter any person / student, if are witnesses to an incident of ragging, must report the same immediately to the Hostel Authorities and/or Institute Authorities. Failure to do so shall be considered as a serious offence and shall be dealt with at par with the perpetrators of ragging.
12. Any fresher, for that matter any resident, if subjected to any form of ragging, must report the incident immediately to the Hostel Authorities. Non-reporting of the incident by a victim shall also be considered as an offence.
13. When the students/residents committing or abetting the crime of ragging could not be identified, collective punishment on a group or all the residents may be resorted to as a deterrent measure.

Hostel Code of Conduct

1. All residents are required to carry their valid Identity Cards issued to them by the Institute in college, Ashram, Mess hall & Canteen and are subject to shown on the demand of warden / security person / Mess staff.
2. The rooms, common areas and surroundings should be kept clean and hygienic. Everybody should clean their rooms' their own. Notices shall not be pasted on walls and walls shall not be scribbled on.
3. The hostel management is authorized to make spot checks on a weekly basis; if rooms are found dirty, in the interest of hygiene and untoward hazard, the rooms will be

cleaned by hostel authorities and the student will be charged for the service provided. Please understand that unhygienic conditions are breeding grounds for bugs and rodents.

4. He/she should see to the upkeep of his / her room, hostel and its environment. Students should bring to the notice of the General Administration office, through the Warden, for all routine maintenance works (Civil, Carpentry and Electrical), if any, to be carried out in their rooms.
5. Students should co-operate in carrying out maintenance work and vacate their rooms completely when the Hostel Management requires the rooms for this purpose. On such occasions, the management will try to provide alternate accommodation. If any maintenance work is to be carried out when the room is under occupation, it is the occupant's responsibility to make the room available for the same.
6. The students should not screen pirated / unauthorized / unlicensed movies in their computers and common rooms. Viewing or be in the possession of ponographic materials in their computers or in their mobile is not permitted. Any violation will be dealt severely. Punishment for the same will be decided by authorities.
7. The resident of a room is responsible for any damage to the property in the room during his / her occupancy of that room and will be required to make good the damage, if any. He/she is required to fill the inventory of the furniture and other items available and hand over the furniture & other materials in good condition when he/she changes/ vacates the room / hostel.
8. In case of damage to or loss of hostel property the cost will be recovered from the students responsible for such damage or loss, if identified, or from all the students of the hostel, as decided by the Residents Warden.
9. The resident shall not move any furniture from its proper allotted place and also not damage them in anyway. If there are any additional items other than the above belonging to the hostel room, the occupant of the room shall hand over them to the Resident Warden, failing which he/she will be charged a penal rent as decided by the Resident Warden.
10. The resident shall not remove any fittings from any other room and get them fitted in his/her room.
11. Residents should not enter into any unnecessary conversation, quarrel or altercation with the hostel staff. If anyone has any complaint against any employee of the hostel, a written complaint against the person is to be lodged with the Warden. Use of abusive and harsh language against the hostel/mess staff is strictly forbidden. Serious action will be taken on any complaint received from staff/faculty against students.
12. Residents will be personally and collectively responsible for any loss / damage to the hostel property. In case of damage to the hostel property the loss caused shall be recovered directly from identified persons whenever possible. But if persons caused the damage remain unidentified, the cost of repairing as assessed by hostel authorities

will be equally distributed among all hostel residents floor wise or block wise of the entire hostel community if required.

13. Smoking and consumption of alcoholic drinks and / or narcotic drugs in the hostel premises is strictly prohibited. Students shall not enter the hostel premises in intoxicated state and should not possess such materials. Severe action will be taken if any resident is found to violate this, resulting in expulsion from hostels and rustication from the Institute. Hostel zone is a smoke-free zone in the Institute. Students should not smoke inside the hostel / room / common room / dining hall / toilets / corridors / terrace etc. Depending on the case, the management reserves the right to take direct disciplinary action, amounting to even expulsion at short notice from the hostel.
14. Employing unauthorized persons for personal work such as washing clothes, etc., is not permitted within the hostel.
15. Any student who is found to be indulging in undesirable activities such as physical assault, damage to property, etc., will be liable to the following punishments: a) He / she will be expelled from the hostel. b) A record of his / her misconduct will be made in the personal file. c) The cost of damage will be fully recovered from him / her together with penalty. d) He / she will also be fined commensurate with the offence committed. e) The privilege of appearing for campus interviews will be denied, when he / she reaches the final year. f) No recommendations will be given to him / her for studies abroad.
16. No student should keep any fire-arms, lethal weapons, poisonous things or intoxicants of any kind in the Hostel. Students must not take law into their own hands, but must report all disputes to the Resident Warden. All kinds of shouting, fighting, gambling, stealing, violent knocking, and maltreating or abusing are strictly prohibited.
17. Residents should not participate in any anti-national, anti-social or undesirable activity in or outside the campus.
18. Birthday celebration, busting crackers (during Diwali, Vishu, etc.), throwing colours (during Holi) are not allowed in the hostel.
19. Residents are not allowed to bring bikes and motor vehicles to the hostel premises. In case of any reason, prior permission shall be taken from hostel Authority.
20. Students should not bring any pet animals into their rooms or encourage such practice.

Movement Code

1. On college working days, residents have to leave the hostel to attend their classes by 08.00 AM.
2. Only such students who are sick or have other valid reasons will be permitted to remain in their room with the permission of Resident Warden.
3. Students to be there in the hostel before 6.00 P.m. on working days.
4. Students should attend evening Bhajans from 6.30 PM to 8.00 PM

5. On working days, 9:00 PM-11:00 PM are deemed study hours during which silence must be maintained and students must remain in their respective rooms.
6. The students must return to the hostel after dinner 9:05 PM and the hostel gate will be locked by that time. The warden is authorized to initiate disciplinary action/ charge fine on students coming late without permission. Gates will be opened at 5:00 AM.
7. Residents leaving for home shall inform the warden one day in advance. The residents shall get a permission letter countersigned by counsellors (one day before), and submitted to warden while returning from home / outside. Reason of movement should be written in the Movement register before going home.
8. Students returning from home visit are permitted to return up to 7.30 PM at night and after 5:30 AM in the morning, after specifically recording this information in the Movements register.
9. Warden will take attendance of each room from 9.00 pm. All residents should be there in their respective rooms during this time.
10. In the event of any necessity for the students to stay back at the college or elsewhere on-duty which might lead to late coming to the hostel, then "Stay Back Form", duly signed by the concerned college authorities as per rules are to be produced to the warden.
11. Students shall not remain absent from their hostels during night without the prior permission of the Warden In-charge/Warden.
12. Students going out beyond permissible hours must record their visiting details in the "Movements Register" and get permission from warden. For any movement in the next day, the movement register must be written on the present day, positively before night attendance. Students should enter the date and time of leaving and also the expected date and time of return. Upon return, the actual date and time of return must also be entered in the movement register.
13. If a student needs to go out on a short visit to nearby town like Kayamkulam for purchase of any essential items, he should write the details in the Short Movement Register available with the warden and ensure that he returns before 6:00PM.

FACULTY MEMBERS

Name	Designation
Bipin Nair, Ph.D	Professor & Dean
Asoke Banerji, Ph.D	Distinguished Professor
Martin Reick, Ph.D	Professor
Geeta Kumar, Ph.D	Professor
Walter Schrenk, Ph.D	Professor
Sudarslal S., Ph.D	Associate Professor
Shyam Diwakar, Ph.D	Associate Professor
Sobha V. Nair, Ph.D	Associate Professor
Sanjay Pal, Ph.D	Associate Professor
Nandita Mishra, Ph.D	Associate Professor
Jayashree G., Ph.D	Assistant Professor
Indulekha CL Pillai, Ph.D	Assistant Professor
Dalia Vishnudasan, Ph.D	Assistant Professor
Jyotsna Nambiar, Ph.D	Assistant Professor
Parvathy V, Ph.D	Assistant Professor
Rajaguruaradhya T C, Ph.D	Assistant Professor
Priyanka Somanath, Ph.D	Assistant Professor
Nidheesh M.	Assistant Professor
Shalini Dinesh	Assistant Professor
Niseema [ON LEAVE]	Assistant Professor
Kartik Iyer [ON LEAVE]	Assistant Professor
Ajith M.	Assistant Professor
Jayalekshmi H.	Assistant Professor
Vidhya Prakash	Assistant Professor
Suja Subash	Assistant Professor
Asha Vijayan	Assistant Professor
Harikrishnan S [ON LEAVE]	Assistant Professor
Dhanya Shinal	Faculty Associate
Sreejith M.	Faculty Associate
Sindhu Shetty	Faculty Associate
Chinchu Bose	Faculty Associate
Divya Bijeesh	Faculty Associate
Sreetha H	Faculty Associate
Aswathy A	Faculty Associate
Jeff Perry, Ph.D	Visiting/ Adjunct Faculty
Prashanth Athri, Ph.D	Visiting/ Adjunct Faculty

Lalitha Subramanian, Ph.D	Visiting/ Adjunct Faculty
Taslimarif Saiyed, Ph.D	Visiting/ Adjunct Faculty
Shabarinath Subramaniam, Ph.D	Visiting/ Adjunct Faculty
Avinash K Shah, Ph.D	Visiting/ Adjunct Faculty
Gillian Murphy, Ph.D	Visiting/ Adjunct Faculty
Hideaki Nagase, Ph.D	Visiting/ Adjunct Faculty
Jaap Heringa, Ph.D	Visiting/ Adjunct Faculty
Sudhir Sahasrabudhe, Ph.D	Visiting/ Adjunct Faculty
Vural Özdemir, Ph.D	Visiting/ Adjunct Faculty
Praveen Nair, Ph.D	Visiting/ Adjunct Faculty
Athira Omanakuttan, Ph.D	Visiting/ Adjunct Faculty

ACADEMIC COORDINATOR

Dr. Sobha V Nair	
Vidhya Prakash	for PG
Suja Subhash	for UG

ASBT SUPPORTING STAFF

Shibu P.	Lab Assistant
Anoop K S	Lab Assistant
Saranya	Administrative Assistant
Sreeja N.	Assistant Librarian
Mayadevi R.	Assistant Librarian
Sridevi Sheshadri	Research Associate
Purnima Bagh	Executive Assistant
Soumya Sivan	Examination Coordinator
Janardana Sarma	Senior Executive
Jayashree Nair	Administrative Assistant
Smitha M. C.	Administrative Assistant
Venugopal	Administration
Anoop S.	Placement Officer
Bindu B.	Office Assistant
Manmohan	Office Attendant
Sreelakshmi S	Lab Assistant

HEADS OF SUPPORT DEPARTMENTS

ACCOUNTS

Mr. Gurumoorthy	General Manager (Finance)
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CORPORATE AND INDUSTRIAL RELATIONS (CIR)

Br. Bijukumar	Center Head, Chairperson
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CENTRAL LIBRARY

Ms. Vasanthakumar P	Head, Central Library
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GENERAL ADMINISTRATION

Mr. M. Ravishankar	General Manager
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HOSTEL ADMINISTRATION

Prof. A. R. G. Menon	Student Affairs
Br. Bijukumar	Chief Warden (Boys Hostels - University Side)
Br. Sairam	Chief Warden (Boys Hostels - Ashram Side)
Mr. Sumesh K. P.	Deputy Chief Warden (University Side)
Prof. Sreekala Menon	Chief Warden (Ladies - University Side)
Ms. Geetha Damodaran	Chief Warden (Ladies - Ashram Side)
Mr. Shankar	Mess Manager

HR OFFICE

Mr. Narayanan Nair K C	Manager
Mr. S. Naushad	Manager

INFORMATION AND COMMUNICATION TECHNOLOGY SERVICES (ICTS)

Mr. V.K. Anoop	Manager (Systems/Networks)
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PHYSICAL EDUCATION

Mr. S. Krishnakumar	Instructor & Chairman
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SCHOOL LEVEL COMMITTEES

ACADEMICS

Prof. Geetha Kumar	Chair	Mr. Nidheesh	Member
Prof. Bipin Nair	Member	Ms. Vidhya Prakash	Associate
Prof. Asoke Banerji	Member	Academic Coordinator PG Programme	
Dr. Sudarslal S	Member	Ms. Suja Subash	Associate
Dr. Sobha V. Nair	Academic	Academic Coordinator UG Programme	
	Coordinator	Mr. Ajith Madhavan	Member
		Dr Parvathy V	Member
Dr. Shyam Diwakar	Member	Ms. Soumya Sivan	Member
Dr. Nandita Mishra	Member	ADMISSIONS	
Dr. Sanjay Pal	Member	Dr. Sobha V. Nair	Chair
Ms. Shalini Dinesh	Member	Mr. Anoop S.	Member
Dr. Jayashree	Member	Mr. Nidheesh M.	Member

ADMINISTRATION

Dr. Sudaralal S.	Chair
Prof. Bipin Nair	Member
Prof. Geetha Kumar	Member
Mr. Nidheesh M.	Member
Ms. Jayashree Nair	Member
Ms. Purnima Bagh	Member
Mr. Naveen Suresh	Member
Ms. Smitha M. C.	Member
Mr. Anoop S.	Member
Ms. Sridevi Sheshadri	Member
Ms. Soumya Sivan	Member

RESEARCH

Prof. Bipin Nair	Chair
Prof. Asoke Banerji	Member
Prof. Geetha Kumar	Member
Dr. Sanjay Pal	Member
Dr. Shyam Diwakar	Member
Dr. Sudaralal S.	Member
Dr. Nandita Mishra	Member
Mr. Ajith Madhavan	Member
Dr. Indulekha CL Pillai	Member
Dr. Dalia Vishnudasana	Member
Dr. Jyotsna Nambiar	Member
Dr. Parvathy V	Member
Dr. Rajaguruaradhya T C	Member

EXAMINATION

Ms. Soumya Sivan	Coordinator
Ms. Sindhu Shetty	Member
Dr. Jayashree	Member
Dr. Parvathy V	Member
Prof. Geetha Kumar	Member
Dr. Shyam Diwakar	Member
Dr. Sudaralal S	Member
Dr. Sanjay Pal	Member

Dr. Sobha V. Nair	Member
Ms. Vidhya Prakash	Member

IQAC

Prof. Bipin Nair	Chair
Dr. Sudaralal S	Coordinator
Ms. Vidhya Prakash	Member
Ms. Suja Subash	Member
Ms. Jayashree Nair	Member
Ms. Soumya Sivan	Member
Ms. Sridevi Sheshadri	Member

STUDENT ACTIVITIES

Mr. Ajith Madhavan	Chair
Ms. Asha Vijayan	Member
Mr. Chinchu Bose	Member
Ms. Dhanya R	Member
Mr. Sreejith M	Member
Mr. Pandurangan N	Member
Ms. Sreetha H	Member
Ms. Aswathy A	Member

PURCHASE

Prof. Bipin Nair	Chair
Prof. Asoke Banerji	Member
Dr. Sudaralal S.	Member
Dr. Sanjay Pal	Member

GRIEVANCE REDRESSAL COMMITTEE / INTERNAL COMPLAINT COMMITTEE:

Mr. Nidheesh M.	Chair
Dr. Jayashree G.	Member
Ms. Vidhya Parakash	Member
Ms. Jayalekshmi H	Member

POST GRADUATE PROGRAMME

Prof. Bipin Nair	Chairperson
Dr. Sobha V. Nair	Member
Dr. Sudaralal	Member

Working Hours

Sl No	Description	On Working Days
1	Classes	8.45 a.m. - 4.50 p.m.
2	College Office	9.00 a.m. - 5.00 p.m.
3	Library	8.00 a.m. - 6.00 p.m.
4	Computer Lab	8.30 a.m. - 8.00 p.m.
6	Gymnasium	
	Boys	6.00 a.m. - 7.30 a.m.
	Girls & Staff (Ladies)	4.00 p.m. - 5.00 p.m.
	Boys (2 slots)	5.00 p.m. - 7.00 pm
	Staff (Gents)	7.00 p.m. - 8.00 p.m.
7	Reprographic Centre	8.30 a.m. - 4.30 p.m.

Mess Facilities

Pure and wholesome vegetarian food is served in buffet style in the College Mess.

Mess Timings

Service	Timings
Break Fast	07.15 a.m. - 08.00 a.m.
Lunch	12.30 p.m. - 01.30 / 02.00 p.m.
Tea	04.15 p.m. - 05.00 p.m.
Dinner	08.00 p.m. - 09.00 p.m.

DEPARTMENT OF STUDENTS AFFAIRS

It guides and coordinates students' activities in the College, Hostel and related areas and helps them solve their academic and non academic problems. It is a bridge between the parents and the teachers.

It offers remedial counselling to help academically backward students and involves itself in maintaining campus discipline and sustaining and promoting the cherished 'Amrita Values and Traditions'.

Awards

Student achievements in academic and non academic fields are recognized and rewarded. On Institutional day, celebrated at the fag end of the academic year, all meritorious students are given prizes and awards. Mementos and generous cash prizes are given to encourage merit.

ASBT LIBRARY

The Library at the School of Biotechnology started as a department Library with about 100 books or so related to the core courses. The Central Library catered to the needs of students

and faculty by providing options to borrow books and held collections in basic life sciences. Over the past five years, the collection at the School Library has increased to hold over 4175 books.

Library Policies and Rules

The Library is kept open well beyond the regular working hours of the School.

Working hours of the Library

On Working days 8.30 am to 6.00 pm

Students are allowed to borrow books by signing in a register if they want to make use of the reprographic facility available at the School. Guidelines for the proper use of the Library and Library materials are distributed by the Library and are included in the student handbook. Following are the Library rules that are to be adhered to by the users of the School Library.

Library Rules and Regulations

General Rules

1. Strict silence should be observed in the Library and Reading room.
2. Entry is permitted with ID card only.
3. Arrange your footwear neatly on shoe rack provided.
4. Members are requested not to bring their personal belongings inside the Library and Reading room. Personal belongings should be kept with the property counter.
5. Use of Mobile phones is strictly prohibited in the Library and Reading room.
6. Users must not act disrespectfully or abusively to other users or to members of the Library staff.
7. Use of edibles in the Library is strictly prohibited.
8. Chairs and tables and other Library equipment may not be shifted and relocated in the reading room.
9. Members are requested to use their laptops only for educational purpose only.

Rules on Library use

1. Books will be issued on producing the Identity card.
2. A maximum of 6 books for duration of 1 month is issued to Teaching Faculty, books for duration of 1 month to Research Scholars, 3 books for duration of 2 weeks to Non-teaching Faculty, 2 books for duration of 1 week to Students.
3. Members are entitled to renew books (maximum 1 renewal) depending upon the demand of particular books.
4. Books should be checked for missing pages or damage before issue. The last borrower will be held responsible for any damage /missing pages found, and the penalty would be at the discretion of the Librarian.
5. Every user is requested to check the status of books outstanding against his / her name soon after a transaction at the counter. Discrepancy, if any, should be brought to the

notice of the Counter person immediately. Any complaint thereafter is not likely to be entertained.

6. Issued books/Personal Books, files, notes and other personal belongings are not allowed to be brought into in the library.
7. Books should not be returned on the same date.
8. Library resources like reference books, periodicals, bound volumes, CDs, audio/video cassettes are to be referred within the library premises.
9. Members are advised not to take more than one copy of the same book.
10. The Librarian, at his/her discretion, may not reissue until some days the returned book, to the same student.
11. Reserve items are not eligible for renewal.
12. An overdue fine is charged when the book is not returned on time. Sundays and Holidays are excluded in the computation of overdue fines. An overdue charge of Rs. 5/- per day will be charged for overdue books. (applicable to Research Scholars and Students category only)
13. Books borrowed should be returned in good condition and before the due date, failing which, fine will be levied as per the rules of the Library.
14. If the borrowed book is damaged or lost, the student shall be liable to replace the book or pay double the value of the book immediately, along with the fine payable. If the damaged book belongs to a set, the borrower is responsible for the entire set.
15. Readers should return the used book in the designated place before leave the Library.
16. Borrowing Reference books for reading and photocopying can be done upon presenting and registering the book in the Reference Issue Register on submission of I.D. at the control desk.
17. On leaving the Library, all users are requested to extend their cooperation for the inspection of all books and items taken out of the Library.
18. Periodicals are limited to room use and for photocopying purposes only.
19. The infringement of the Library rules shall make the student forfeit the privileges of membership of the Library, in addition to the action takes as per the disciplinary rules of the college.
20. Notices, handout or related material may be displayed in the Library only with the permission of the Dean.

Library Materials Upkeep

- Do not mishandle or upset the arrangement of books. Such practices create problems for other readers. It is not easy for the Library staff to trace misplaced books or journals.
- Students should ensure proper handling of books, journals and other reading materials.

- Any damage of books is not allowed. Do not tear pages or make any marking and writing in the books. Students indulging in such activities shall be severely punished.
- Replace the books on the shelves and when needed ask the Library staff to help in placing the books in the correct racks.
- Loss of Library book must be brought to the attention of the Library staff immediately.

CORPORATE & INDUSTRY RELATIONS (CIR)

Empowering the students with wholesome knowledge and enriching their minds with human values are the two-pronged approach that Amrita Vishwa Vidyapeetham has adopted to groom all those who have come to her seeking education that will assure them a better tomorrow. Over the years, this methodology has been found quite effective in meeting the aspirations of the stake holders and in serving the goal of education as envisioned by our Chancellor, Satguru Mata Amritanandamayi Devi, that is 'education for life' instead of 'education for a living'. Today, opportunities for employment are aplenty. All one has to do is to acquire specialized knowledge and related skills. But 'Amrita' is not looking at this opportunity from the point of view of mere number of jobs that the student can secure. It wants to be a contributor of outstanding human resource for the development of technology, science, art and culture, so that human societies, as a whole, stand to gain from the contributions of such inspired and empowered individuals. Lofty goals demand matching efforts and we are aware of their magnitude and complexity. To achieve our goals, we have put in place the necessary structure, system and process, which went through much iteration before reaching the present stature.

In a multi campus, multi-disciplinary university like Amrita Vishwa Vidyapeetham, the students have many options to choose from, in terms of programmes, courses and specialisations. Such wide-ranging opportunities also tend to scale up the aspiration levels of the students with regard to academic contributions and professional careers. In order to fulfill the career aspirations of the students, it was found necessary for them to have expert assistance in specific areas, beyond their regular academic mapping. The 'Corporate & Industry Relations' was established to devise ways and means to achieve this objective.

The Corporate Relations function has to be all encompassing, if it has to serve varying needs of multiple disciplines and centers. CIR has been able to establish excellent rapport with senior officials of corporate, government and semi-government undertakings, and IT and core industry giants, through regular visits and other means of communication.

The University's comprehensive relationship with the industry and the corporate world has benefited students, faculty and others engaged in research and development to a very great extent, especially in terms of exposure to cutting-edge technologies and widening horizons.

The central theme of CIR has been the overall development of the students' personality, with necessary emphasis on communication skills and reasoning abilities. To get a real-life experience, students are taken through mock interviews and group discussions with internal and external experts on the

Frequent tests are administered simulating corporate testing processes in intensity, variety and content, so that there are no surprises when the students actually face the placement

routine. The efficacy of this approach has been borne out by the placement and subsequent feedback from employers.

STUDENT WELFARE

Proficiency Prizes

Every year, students with best academic performance from each programme are given Proficiency Prizes and commendation certificate on the Institutional Day.

Students Education Protection Policy

Our Schools have implemented an insurance policy for the benefit of the students. This policy aims at providing protection for the education of the students in case of any unfortunate death or permanent total disability of the legal guardian due to accident. In such an event, the entire educational expenses of the student concerned will be met by the insurance company till the completion of his/her course in this institution. In addition to the above, insurance cover is arranged to meet the hospitalisation expenses (including ambulance and taxi charges) of a student in case of an accident in the college premises during college hours.

Students Accident Benefit Insurance

This policy coverage is for reimbursement of hospital/medical expenses incurred by the student due to an accident while commuting to/from college, inside the campus/participating in authorised tours/excursions etc., upto maximum of Rs.2 lakhs.

Group Insurance Coverage

This policy coverage is for natural death or death due to accident for students upto a maximum of Rs.3 lakhs per student. This is applicable to students admitted from the year 2010 onwards.

CO-CURRICULAR / EXTRA CURRICULAR ACTIVITIES

CREATOME

Most life science students are sure to come across a genome, proteome or metabolome at some point or the other over the course of their studies. But now we at Amrita School of Biotechnology have a new word to add to that list. "CREATOME", a cornucopia of creativity and ideas. A student driven club that acts as a platform to showcase the fabulous array of talents that the students of our department possess. We have 7 wings - Performing Arts, Non-Performing Arts, Literature, Sports, Multimedia, Science, Values for Life that broadly represent most of the activities that take place at Amrita School of Biotechnology. CREATOME hopes to inspire creativity, ingenuity, team spirit and individuality in our students and help our students prepare to take on the big bad world, confidence in themselves and their abilities.

Visit www.creatome.in to know more

Cultural Activities

Amrita Vishwa Vidyapeetham has several avenues for bringing out the innate potential and creative talents of the youngsters. The inter-house arts festival 'Amritakalotsavam' and

other inter-college competitions provide a platform for students to nourish and nurture such talents. Also, various Indian festivals are celebrated in a befitting and colourful manner as below:

Cultural Events:

Amrita Kalotsavam

'Amrita Kalotsavam' is exclusively a students' cultural programme involving the students of all the schools in the campus to help bring out the innate potential and creative talents of the youngsters. This three-day festival held every year also helps retain the culture and tradition of our motherland.

Biocrest

The Anniversary celebrations at School of Biotechnology is one of the events where student showcases their talent in both academics & fine arts.

Amritavarsham Celebrations

The entire student and staff community of Amritapuri Campus actively involve themselves in the birthday celebrations of our beloved AMMA, the Chancellor of Amrita Vishwa Vidyapeetham. This gives students an opportunity to imbibe Amma's message of love and service across all boundaries of faith, language, nationality and social strata.

Guru Poornima

It is a celebration in honour of Vyasa Maharshi and the lineage of Guruparampara. In addition to the Pada Pooja of Amma in the Ashram, the schools organise vibrant classical performances, skits, quiz, elocution competition and bhajans etc. Messages from the life and teachings of the great gurus of India are highlighted.

Onam Celebrations

This is the legendary and historical festival of Kerala which highlights the greatest message of India that all humans are equal. The most important event is the organisation of 'Pookkalam' for ten days in front of Amma's room at the Ashram by students and staff members. The additional attraction is the 'Ona Sadya' or 'Onam Feast' wherein the staff members serve the students with the elaborate spread.

Sreekrishna Jayanthi

This is the birthday of Lord Sri Krishna, also known as Gokulashtami / Janmashtami. The highlights of the festival are Uri-adi representing Sri Krishna's Leelas in Gokulam, followed by Satsang, Bhajan, Pooja, Amma's message and 'prasadam' distribution by Amma Herself after midnight.

Cultural Associations

Sanskriti

Sanskriti is a cultural forum of Amrita Vishwa Vidyapeetham, Amritapuri Campus, which works towards the goals of creating awareness about Indian culture and to enlighten all about the various aspects of the same like Science and Technology in the Indian Society,

Indian Polity and Economy, Art, Architecture, Literature and Aesthetics and Indian thought and Spirituality. Apart from organizing distinguished lectures by experts and eminent scholars at regular intervals, this forum is also mandated to discuss and debate the various aspects of Indian civilization, history and culture of the Indian people.

SPICMACAY

Society for Promotion of Indian Classical Music And Culture Amongst Youth is the students cultural forum. It organises at regular intervals programmes to promote all forms of Indian classical arts and music. Internationally known exponents of art and music are invited to perform in the campus to generate interest in our culture and art forms among students.

Social Service Forums

Amala Bharatham Campaign (ABC)

This is a "Clean India" project organised by AMMA Herself to bring back to our Motherland Her 'Orginal' beauty and splendour. Volunteers from among the staff and students of Amritapuri campus spread the awareness to their neighbourhood about Amma's vision of a 'totally clean and beautiful India'. The 4th Sunday of every month, particularly, is observed as 'Clean Sunday'. Gaining momentum everyday, the ABC has grown in dimensions to gain recognition as a national movement.

AYUDH

Amrita Yuva Dharmadhara is the youth wing of Mata Amritanandamayi Math promoting selfless service to society among youth. AYUDH organizes personality development and leadership training, apart from providing avenues for students to take part in emergency services during unexpected natural calamities like earthquakes, tsunami etc. in different parts of the world. It also provides opportunities for students to participate in the Math's various charitable activities like building free houses for the poor, involving in village development programmes, organizing health camps in villages, serving free food to the poor etc. Green Friends is a 'nature club' working under the banner of AYUDH with a vision to instill among the youth the love for plants and animals. It helps develop respect for oneness with nature and all elements in life. The members actively involve themselves in preserving the campus ecosphere and promoting echo-friendly way of life through creating awareness inside and out side the campus. They also organise seminars and invited talks on the subject and related issues.

Bharatmata Pooja

On the Independence Day every year, Bharatmata Pooja is conducted wherein the celebration takes place in the Mata Amritanandamayi Math, usually in the presence of AMMA.

Green Friends

This is a 'nature club' working with a vision to instill among the youth the love for plants and animals. It helps develop respect for oneness with nature and all elements in life. The

members actively involve themselves in preserving the campus ecosphere and promoting echo-friendly way of life through creating awareness inside and out side the campus. They also organise seminars and invited talks on the subject and related issues.

VIDYUT

'VIDYUT' is an all India annual level techno management fest during January- February. The fest is centred around the theme 'Technology for Humanity' emphasising the concept of 'Smart Village'. The multi fest features 40 technical competitions from all the branches of engineering, arts, sciences, biotechnology, management, etc. that in their own way shall contribute to the participants in understanding the concept of Smart Village. At the end of the fest the participants go back with ideas attributing to infrastructure and maintenance of a smart village. The event provides nascent engineers the opportunity to learn, develop and contribute effectively with a broader perspective and this is achieved through technical workshops which are scheduled throughout the event. We wish to enlighten the brilliant minds of our country through our invited lecture series featuring industry experts, management trainers and other eminent personalities. The event shall also play host to a practical Smart Village model that would showcase the utility of green energy and other smart technologies used in Smart Villages. Creative talents are duly admired at Amrita and we believe in opening up to music and dance that are bound to rejuvenate the exhausted and astute minds of our participants with a bunch of pro shows by critically acclaimed artists which would explicitly be an enthralling experience for people of all age groups.

Other Forums

Alumni Relations

Amrita's Alumni Network (Amritians) at the School of Biotechnology strives to create and promote a lifelong bond between alumni and students, and inspire them to care about the past, present and future of Amrita. Every year hundreds of alumni from every walk of life (and from around the globe) give something back to Amrita by mentoring students, participating in events, volunteering, serving on alumni association committees or becoming active in their local chapter.

Self Development Activities

Department of Physical Education

Sports provide an excellent opportunity for students to interact with each other and develop true sportsman spirit. The department of Physical Education coordinate several indoor and outdoor facilities like football, volley ball, cricket, basketball, handball, Kabaddi, Badminton (Shuttle), Kho-Kho, billiards, caroms and chess. The department organises athletic meets, inter-campus tournaments in table tennis, badminton (shuttle), volley ball, foot ball, etc annually. The campus has a well equipped gymnasium with 18 independent work stations. Also, ample facilities are available for indoor games.

Our students have participated in state level and national level sports events and bagged many awards and lourels. Talented sportsmen and women are identified by holding inter campus tournaments and participating in the inter university tournaments. Regular intramural sports events are being conducted. Talent search programmes are held for first

year students to identify best sports persons.

Yoga & Meditation

Good physical, mental and spiritual health are indispensable for a happy and healthy life. Realising its importance, yoga and meditation classes are arranged in the campus. IAM (Integrated Amrita Meditation) technique conceptualised by AMMA is imparted to all the students and the staff community.

FACILITIES

Information and Communication Technology Services (ICTS)

ICTS Department at Amrita Vishwa Vidyapeetham aims at identifying, providing and maintaining reliable computing facilities, computing network environment, communication facilities and related infrastructure to facilitate education, research, instructional and institute approved business services.

The department is functionally grouped into System/Network Administration, Hardware and Network Support and Computer center Administration.

Amrita Graphics

A dedicated team of photographers, videographers and graphic designers work in the Graphics Cell of ICTS, Amritapuri Campus serving all the graphic needs of the university. The Graphics cell undertakes web/graphic designing, 3D and 2D graphics jobs on the campus like videography, photography, video, sound editing, dubbing etc.

Computing Facilities in the Campus.

The campus is well equipped with over 3000 heterogeneous computers. This facility is distributed across the campus in computer centers at multiple locations. The computer centers are accessible to students during college working hours. They are also kept open beyond the college working hours and on holidays for the benefit of the students. Computing facilities in the faculty rooms, administration, research buildings, and facilities management are inter-networked with a high speed, redundant fiber optic backbone. The network, storage and servers are consolidated at the Data center located in the main building complex. The data center also hosts redundant internet links totaling to 100 Mbps. Specialized computing facilities for CAD-CAM, VLSI, Embedded Systems, Digital Signal Processing etc are also provided in the respective departments. The intranet site - www.amrita.ac.in hosts links to various IT enabled services like Amrita University Management Systems (AUMS), Digital library, Central Library book search, email, helpdesk etc. Some of the specialized software available include I-DEAS, CATIA, Pro ENGINEER, UNIGRAPHICS, ANSYS, FLUENT, MOLDFLOW etc. for CAD-CAM: Protes, Model Sim, Qurtel, Lio Modem Spectrum, Matlab etc. for VLSI.

ICTS provide several noteworthy trends in computing, particularly in response to security issues. Significant support for departmental office groups and research areas is lent by the ICTS. Deploying central IT resources comprises Email and collaboration, server hosting, high performance computing cluster, data leak prevention, biometric and IP camera

solutions, internet, Wi-Fi, security solutions, VPN, telecommunication and conferencing. High performance desktops are provided with Internet access for the university's research, academic group of users. All staff and students are provided with a domain login account in order to access the campus network and other facilities.

The academic blocks are Wi-Fi enabled for the users to get seamless connectivity. The network is also connected to other campuses at Ettimadai, Bangalore and Kochi via dedicated VPN links which enable conduct of two-way-audio-video enabled lectures and discussions. An EDUSAT Satellite-based network connecting over 70 premier Engineering colleges in India is also part of the campus network and services.

Campus Wi-Fi Connectivity

The Wi-Fi technology allows inter building connectivity between different schools of our campus which enable computers to send and receive data anywhere within the range of the base stations or access points. The Wi-Fi network on the University campus would use radio technology protocol 802.11b. It is deployed in wireless LAN environment and provides up to 11mbps transmission on different channels in the 2.4 GHz band, a frequency shared by other wireless technologies like Bluetooth and cordless phones.

Amrita-ISRO Centre for E-Learning

A state-of-the art E-learning Studio is established at Amritapuri campus which is connected to two satellite links. One of these links is the ISRO satellite network for education and research that links all the campuses of Amrita Vishwa Vidyapeetham. The second link is to EDUSAT for the Indo-US E-learning network which covers more than 50 colleges and universities all over India. Both of these satellite links are used for two-way audio/video communication. Students from any Amrita campus can not only 'attend' but can also interact in lectures taking place from other campuses.

Amrita Technology Business Incubator (TBI)

Amrita Technology Business Incubator (TBI) is an initiative of Department of Science and Technology (DST), Government of India, hosted by Amrita Vishwa Vidyapeetham to accelerate successful development of business by grooming young and dynamic entrepreneurs. Amrita TBI aims to convert innovative ideas into products and help to ultimately transform into a venture capital funded company.

OTHER CAMPUS FACILITIES

Convention Centre

The convention centre houses the following facilities;

1. Acharaya Hall, fully air-conditioned with a capacity of 350 seats
2. Amriteswari Hall, fully air-conditioned with a capacity of 350 seats
3. Four Seminar Halls
4. Boys common room and Girls common room
5. Dining Hall

Reprographic

Photocopying facility is available in the campus.

Canteen

The University runs three full-fledged cafeterias in the campus from 8.00 a.m. to 6.00 p.m. Delicious vegetarian food, both south and North Indian variety are available during specified hours. A cafeteria is also available in the different boys' and girls' hostels during evening hours.

Transport

Transport facility is available for the day scholars, faculty and staff members. College buses are plyed in different directions, like up to Kollam, Thiruvalla, Bharanikkavu and Karuvatta(beyond Haripad).

Medical Facility

The students can avail themselves of the services offered at Amritakripa hospital situated in the Ashram premises. It is a well-equipped hospital with round-the-clock attendance by doctors. Specialist doctors from the city assist them in their task in case of emergencies. The hospital has tele-medicine connectivity with Amrita Institute of Medical Sciences (AIMS), Kochi and remote expert medical help can be availed through this facility.

Ayurveda Hospital

This is a full-fledged hospital facility where ayurvedic treatment including Panchakarma, is available. Ayurvedic / Herbal medicines prepared in strict traditional manner available at the pharmacy.

Banks with ATM

An extension counter of The Dhanlaxmi Bank is functioning in the Ashram premises. The State Bank of India, Federal Bank, Canara Bank and the South Indian Bank are also functioning near the campus. Students can make use of the personal banking facilities with these Banks. All the four banks also provide their 24-hour ATM facility near the campus.

General Stores

The general store in the Ashram premises caters to the needs of the residential students.

Swimming Pool

A swimming pool is located in the Ashram is utilised by students, staff members and others living on the campus. Qualified and trained coaches are also available to train the beginners.

FEE STRUCTURE

PG PROGRAMS M. SC. BIOINFORMATICS

PAYMENT TIME	TUITION FEES
June 2018	₹45650
December 2018	₹42650
June 2019	₹42650
December 2019	₹42650
TOTAL	₹1,73,600

M. SC. MICROBIOLOGY / M.SC. BIOTECHNOLOGY

PAYMENT TIME	TUITION FEES
June 2018	₹70650
December 2018	₹67650
June 2019	₹67650
December 2019	₹67650
TOTAL	₹2,73,600

UG PROGRAMS B.SC. MICROBIOLOGY / B.SC. BIOTECHNOLOGY

PAYMENT TIME	TUITION FEES
June 2018	₹53100
December 2018	₹50100
June 2019	₹50100
December 2019	₹50100
June 2020	₹50100
December 2020	₹50100
TOTAL	₹3,03,600

HOSTEL FEE STRUCTURE

1.	Room Rent + Establishment Charges	Annual	₹24,000
2.	Mess Charges	Annual	₹39,900
3.	Caution Deposit*	One Time	₹5000
Total			₹68,900

Disclaimer: Fees mentioned above are current. The University reserves the right to revise the same at any time without notice.

Payment Options for Academic Fees - Amrita Vishwa Vidyapeetham

Amrita Vishwa Vidyapeetham has made the following options available to pay academic fees more easily and conveniently.

Dhanlaxmi Bank introduce the new Fee collection mechanism for the courses offered by Amrita Vishwa Vidyapeetham. The new mechanism provides options to remit the fee more easily and conveniently.

The options are:

- OPTION 1: Deposit at any Dhanlaxmi Bank Branch
- OPTION 2: Remittance via NEFT/RTGS
- OPTION 3: Deposit from outside of India (only USD)

For the above options ensure to mention your Virtual A/C Number.

What is your Virtual A/C Number?

It is your Amrita Roll Number without dots. Eg. If your Amrita Roll Number is AM.BT.U3BIT17001 then your virtual A/C number is AMBTU3BIT17001.

OPTION 1 : DEPOSIT AT DHANLAXMI BANK BRANCH COUNTER

- Visit any Dhanlaxmi branch
- Provide the Student Amrita Roll No., Student name and the amount to be remitted
- Branch will generate a voucher for remittance
- Remit the amount and get the counterfoil with branch seal

OPTION 2 : FOR FEE REMITTANCE VIA NEFT/RTGS

- Online Remittance (add beneficiary in your netbanking)
- Remittance of other bank branches (fill in details)

The beneficiary details will be :

- **Your Beneficiary A/C Number** : Your Amrita Roll Number without dots
- **Amount** : Tuition Fee / Other Fee etc
- **Beneficiary Bank Branch** : Dhanlaxmi Bank,Ltd, DCS
- **IFSC Code** : DLXB0000996
- **Beneficiary Name** : Student Name

OPTION 3 : DEPOSIT FROM OUTSIDE INDIA (ONLY USD)

To make Remittance to India from any part of the world, please instruct your bankers in the following format

PLEASE REMIT: _____ (Currency & Amount)

TO: THE BANK OF NEWYORK MELLON, New York, NY 10104, United States,
IRVTUS3NXXX

FOR CREDIT OF ;

DHANLAXMI BANK LIMITED, TREASURY DEPARTMENT, MUMBAI, A/C NO: 8901003107

SWIFT : DLXBINBBMUM

FOR FURTHER CREDIT TO:

THE DHANALAKSHMI BANK LTD,
M.A MATH, Vallikavu Branch, Amritapuri,
Kollam-690546, Kerala

A/C NO. 005900100155159

IFSC CODE : DLXB0000260

Account Name : AMRITA SCHOOL OF BIOTECHNOLOGY

For easier tracking of the transaction, please mention the Student Roll No.

Fee receipt of the online remittance can be received from the Accounts department. If you need clarification in the above process please contact the concerned admin team of the respective college.

CURRICULAM

BSc Biotechnology			
Semester 1			
	Course Code	Course Name	Credits
1	ENG100	ENGLISH	3
2	CHY103	CHEMISTRY	4
3	PHY103	PHYSICS	4
4	MIC100	INTRODUCTORY MICROBIOLOGY	3
5	MIC103	INTRODUCTORY BIOLOGY	3
6	CUL101	CULTURAL EDUCATION	2
7	MIC180	INTRODUCTORY MICROBIOLOGY- LAB	2
		Total Credits	21
Semester 2			
1	BIO100	PRINCIPLES OF ECOLOGY & EVOLUTION	3
2	BIO103	BIOCHEMISTRY	3
3	ENG101	ENGLISH / CREATIVE WRITING & SOFT SKILLS	3
4	CSA100	INFORMATION SYSTEMS	3
5	MAT100	MATHEMATICS	4
6	CUL102	CULTURAL EDUCATION - II	2
7	PHY182	PHYSICAL SCIENCES - LAB	2
8	BIO180	BIOCHEMISTRY - LAB	2
		Total Credits	22
Semester 3			
1	BIO202	MOLECULAR BIOLOGY	3
2	BIO206	ANALYTICAL BIOCHEMISTRY	3
3	MIC205	VIROLOGY	3
4	BIO223	PLANT BIOLOGY	4
5	MAT201	BIOSTATISTICS	3
6	AVP201	AMRITA VALUES PROGRAMME-1	1
7	MIC281	GENERAL MICROBIOLOGY - LAB	2
8	BIO281	CELL & MOLECULAR BIOLOGY - LAB	2
		Total Credits	21

Semester 4			
1	BIO201	HUMAN PHYSIOLOGY	4
2	BIO204	CELL BIOLOGY	3
3	BIO205	GENETICS	3
4	BIO207	IMMUNOLOGY	3
5	BIO209	ENZYME TECHNOLOGY	3
6	BIO212	INTRODUCTORY BIOPHYSICS	2
7	AVP211	AMRITA VALUES PROGRAMME -II	1
8	SSD201	SOFT SKILLS-I	1
9	BIO282	IMMUNOLOGY - LAB	2
10	BIO283	ENZYMOMOLOGY - LAB	2
		Total Credits	24

Semester 5			
1	BIO311	BIOENERGETICS & METABOLISM	3
2	BIO314	GENETIC ENGINEERING	4
3	BIO315	INDUSTRIAL & ENVIRONMENTAL BIOTECHNOLOGY	3
4	BIO317	RESEARCH METHODOLOGY	2
5	BIO318	OMES & OMICS	3
6	BIO396	LIVE-IN-LABS/OPEN ELECTIVE	3
7	BIO385	INDUSTRIAL BIOTECHNOLOGY LAB	2
8	BIO386	GENETIC ENGINEERING LAB	2
		Total Credits	22

Semester 6			
1	BIO399	PROJECT	7
2	BIO319	PHARMACOLOGY	4
3	BIO322	DEVELOPMENTAL BIOLOGY	3
4	BIF301	INTRODUCTORY BIOINFORMATICS	2
		Total Credits	16

BSc Microbiology

Semester 1			
1	ENG100	ENGLISH	3
2	CHY103	CHEMISTRY	4

3	PHY103	PHYSICS	4
4	MIC100	INTRODUCTORY MICROBIOLOGY	3
5	MIC103	INTRODUCTORY BIOLOGY	3
6	CUL101	CULTURAL EDUCATION	2
7	MIC180	INTRODUCTORY MICROBIOLOGY - LAB	2
		Total Credits	21

Semester 2			
1	MIC101	MICROBIAL ECOLOGY, DIVERSITY AND CLASSIFICATION	3
2	BIO103	BIOCHEMISTRY	3
3	ENG101	ENGLISH / CREATIVE WRITING & SOFT SKILLS	3
4	CSA100	INFORMATION SYSTEMS	3
5	MAT100	MATHEMATICS	4
6	CUL102	CULTURAL EDUCATION - II	2
7	PHY182	PHYSICAL SCIENCES - LAB	2
8	BIO180	BIOCHEMISTRY - LAB	2
		Total Credits	22

Semester 3			
1	BIO202	MOLECULAR BIOLOGY	3
2	BIO206	ANALYTICAL BIOCHEMISTRY	3
3	MIC205	VIROLOGY	3
4	MIC206	MYCOLOGY	3
5	MAT201	BIOSTATISTICS	3
6	AVP201	AMRITA VALUES PROGRAMME-I	1
7	MIC281	GENERAL MICROBIOLOGY - LAB	2
8	BIO281	CELL & MOLECULAR BIOLOGY - LAB	2
		Total Credits	20

Semester 4			
1	MIC215	INHERITANCE BIOLOGY	3
2	BIO204	CELL BIOLOGY	3
3	MIC214	MICROBIAL PHYSIOLOGY & METABOLISM	4
4	BIO207	IMMUNOLOGY	3
5	BIO209	ENZYME TECHNOLOGY	3

6	MIC207	FOOD MICROBIOLOGY	3
7	AVP211	AMRITA VALUES PROGRAMME -II	1
8	SSD201	SOFT SKILLS-I	1
9	BIO282	IMMUNOLOGY - LAB	2
10	MIC283	FOOD MICROBIOLOGY - LAB	2
		Total Credits	25
Semester 5			
1	MIC309	INDUSTRIAL MICROBIOLOGY	3
2	MIC312	MEDICAL BACTERIOLOGY	3
3	MIC316	RECOMBINANT DNA TECHNOLOGY	3
4	BIO317	RESEARCH METHODOLOGY	2
5	MIC317	ENVIRONMENTAL & AGRICULTURAL MICROBIOLOGY	3
6	BIO396	LIVE-IN-LABS/OPEN ELECTIVE	3
7	MIC384	MEDICAL BACTERIOLOGY LAB	2
8	BIO386	GENETIC ENGINEERING LAB	2
9	MIC385	INDUSTRIAL MICROBIOLOGY LAB	2
		Total Credits	23
Semester 6			
1	MIC399	PROJECT	7
2	BIO319	PHARMACOLOGY	4
3	MIC311	PARASITOLOGY	3
4	BIF301	INTRODUCTORY BIOINFORMATICS	2
		Total Credits	16

* An Open Elective course need to be taken by each student, in 5th semester, from the list of Open electives offered by the School.

@ Live - in - Labs - This initiative is to provide opportunities for students to get involved in coming up with solutions for societal problems. The students shall visit villages or rural sites during the vacations (after 2nd semester or 4th semester) and if they identify a worthwhile project, they shall register for a 3 - credit Live - in - Lab project, in the fifth semester. The objectives and projected outcome of the project should be reviewed and approved by a review committee and a faculty assigned as the project guide. On completion of the project, the student shall submit a detailed project report. The report shall be evaluated and the students shall appear for a viva - voce test on the project. Students undertaking and registering for a Live - in - Lab project, can be exempted from registering for an Open Elective course in the fifth semester.

MSc Biotechnology			
Semester 1			
	Course Code	Course Name	Credits
1	BIO400	Cell Biology & Stem Cell Biology	3
2	BIO401	Molecular Biology	3
3	BIO419	Biochemistry	4
4	BIO497	Research Methodology	2
5	MIC407	Microbiology	2
6	MAT401	Biostatistics	3
7	CUL401	Cultural Education	1
8	SSD401	Soft Skills	1
9	MIC480	Microbiology - Lab	2
10	BIO482	Biochemistry - Lab	2
		Total Credits	23
Semester 2			
1	BIO403	Molecular Genetics	3
2	BIO404	Ethics in Research & Intellectual Property Rights	2
3	BIO408	Recombinant DNA Technology	3
4	BIO410	Advanced Discovery Biology	3
5	BIO418	Industrial Biotechnology	3
6	BIO424	Bioanalytical Techniques	3
7	BIO481	Recombinant DNA Technology - Lab	2
8	BIO485	Industrial Biotechnology - Lab	2
9		BT Elective - 1	3
10	AVP401	Amrita Values Programme	1
11	SSD402	Soft Skills - II	2
		Total Credits	27
BT Elective 1			
1	BIO464	Cancer Biology	3
2	BIO465	Phage Biology	3
3	BIO466	Cell Signaling	3
4	BIO467	Biomimicry	3
5	BIO412	Molecular & Cellular Biophysics	3

6	BIO451	Neuroscience	3
7	BIO456	Advanced Biochemistry	3
8	BIO569	Regenerative Biology & Stem Cells	3
Semester 3			
1	BIO514	Molecular & Cellular Immunology & Biology of Vaccines	4
2	BIO528	Advanced Pharmaceutical Biotechnology	3
3	BIO526	Plant & Animal Biotechnology	3
4	BIO527	Mass Spectrometry & Proteomics	3
5	BIF514	Bioinformatics	3
6	SSD501	Soft Skills-III	1
7		BT Elective - 2	3
8	BIO584	Immunology - Lab	2
9	BIO588	Cell & Molecular Biology - Lab	2
10		Open Elective	2
		Total Credits	26
BT Elective 2			
1	BIO553	Nanobiotechnology	3
2	BIO550	Developmental Biology	3
3	BIO559	Molecular & Cellular Neuroscience	3
4	BIO552	Recent Trends in RNA Biology	3
5	BIO568	Ecology & Evolution	3
6	BIO561	Glycobiology	3
7	BIO555	Matrix biology and Biomaterials	3
Semester 4			
1	BIO599	Dissertation/Thesis	10
		Total Credits	10
		TOTAL CREDITS FOR THE PROGRAMME	84

MSc Microbiology			
Semester 1			
1	BIO400	Cell Biology & Stem Cell Biology	3
2	BIO401	Molecular Biology	3
3	BIO419	Biochemistry	4
4	BIO497	Research Methodology	2
5	MIC407	Microbiology	2
6	MAT401	Biostatistics	3
7	CUL401	Cultural Education	1
8	SSD401	Soft Skills	1
9	MIC480	Microbiology - Lab	2
10	BIO482	Biochemistry - Lab	2
		Total Credits	23
Semester 2			
1	BIO403	Molecular Genetics	3
2	BIO404	Ethics in Research & Intellectual Property Rights	2
3	BIO408	Recombinant DNA Technology	3
4	MIC402	Microbial Physiology	2
5	BIO418	Industrial Biotechnology	3
6	MIC411	Bacterial & Viral Pathogenesis	4
7	BIO481	Recombinant DNA Technology - Lab	2
8	BIO485	Industrial Biotechnology - Lab	2
9		MB Elective - 1	3
10	AVP401	Amrita Values Programme	1
11	SSD402	Soft Skills - II	2
		Total Credits	27
MB Elective 1			
1	BIO464	Cancer Biology	3
2	BIO465	Phage Biology	3
3	BIO466	Cell Signaling	3
4	BIO467	Biomimicry	3
5	BIO424	Bioanalytical Techniques	3
6	BIO412	Molecular & Cellular Biophysics	3

7	BIO451	Neuroscience	3
8	BIO456	Advanced Biochemistry	3
9	BIO569	Regenerative Biology & Stem Cells	3
10	BIO410	Advanced Discovery Biology	3
Semester 3			
1	BIO514	Molecular And Cellular Immunology & Biology of Vaccines	4
2	BIO528	Advanced Pharmaceutical Biotechnology	3
3	MIC503	Food Microbiology	2
4	MIC505	Mycology	2
5	MIC506	Parasitology	2
6	MIC509	Environmental & Agricultural Microbiology	3
7	SSD501	Soft Skills-III	1
8		MB Elective - 2	3
9	BIO584	Immunology - Lab	2
10	MIC581	Food Microbiology - Lab	2
11		Open Elective	2
		Total Credits	24
MB Elective 2			
1	BIO553	Nanobiotechnology	3
2	BIO550	Developmental Biology	3
3	BIO559	Molecular & Cellular Neuroscience	3
4	BIO552	Recent Trends in RNA Biology	3
5	BIO527	Mass Spectrometry & Proteomics	3
6	BIO568	Ecology & Evolution	3
7	BIO561	Glycobiology	3
8	BIO555	Matrix biology and Biomaterials	3
9	BIF514	Bioinformatics	3
Semester 4			
	Course Code	Course Name	Credits
1	MIC599	Dissertation/Thesis	10
		Total Credits	10
		TOTAL CREDITS FOR THE PROGRAMME	84

M.Sc. BIOINFORMATICS		
NO. OF SEMESTERS: 4; TOTAL CREDITS: 85		
SEMESTER 1		
Sl.No	Course Title	Credits
1	Introduction to Bioinformatics	3
2	Molecular Biology for Bioinformatics	3
3	Cell Biology	3
4	Molecular Sequence Analysis	2
5	Database Design and Implementation for Bioinformatics	3
6	Programming Concepts	3
7	Bioinformatics Tools (Lab)	1
8	Database Design for Bioinformatics (Lab)	1
9	Programming for Bioinformatics (Lab)	1
10	Cultural Education	1
11	Soft Skills I	1
	Total Credits	22
SEMESTER 2		
Sl.No	Course Title	Credits
1	Energy and Interaction in Biological Modeling	3
2	Structural Bioinformatics	4
3	Mathematics for Bioinformatics	4
4	Machine Learning and Data Mining	3
5	Molecular and Cellular Biophysics	3
6	Statistics for Bioinformatics	3
7	Perl Programming	3
8	Cell and Molecular Biology (Lab)	1
9	Perl Programming (Lab)	1
10	Amrita Value Program	1
11	Soft Skills II	1
	Total Credits	27
SEMESTER 3		
Sl.No	Course Title	Credits
1	Evolution and Comparative Genomics	3

2	Mathematical Modeling of Biological Systems	2
3	Mass Spectrometry and Proteomics	3
4	Advanced Programming for Bioinformatics	4
5	Computer-Aided Drug Design and Pharmacoinformatics	3
6	Object-Oriented Programming Language	4
7	Advanced Programming for Bioinformatics (Lab)	1
8	Elective I	2
9	Elective II	2
10	Open Elective	2
11	Soft Skills III	1
	Total Credits	27
SEMESTER 4		
Sl.No	Course Title	Credits
1	Dissertation / Thesis	10
OPTIONS FOR ELECTIVES		
Sl.No	Course Title	Credits
1	Systems Biology	2
2	Neurobiology and Electrophysiology	2
3	Next-Generation Sequencing Analysis	2
4	Computational Neuroscience	2
5	Metagenomics and Microbiome	2
6	Bioinformatics and Big data	2
7	Career Development and Business	2

* One Open Elective course is to be taken by each student, in the 3rd semester, from the list of Open electives offered by the School.

@ Live - in - Labs - This initiative is to provide opportunities for students to get involved in coming up with solutions for societal problems. The students shall visit villages or rural sites during the vacations, after the 2nd semester and if they identify a worthwhile project, they shall register for a 2 - credit Live - in - Lab project, in the third semester. The objectives and projected outcome of the project should be reviewed and approved by a review committee and a faculty assigned as the project guide. On completion of the project, the student shall submit a detailed project report. The report shall be evaluated and the students shall appear for a viva - voce test on the project. Students undertaking and registering for a Live - in- Lab project, can be exempted from registering for the Open Elective course in the third semester.



School of Biotechnology

The mission of the school is to actively pioneer interdisciplinary education, research and industry collaboration in biotechnology.

The school has a vision to provide value based education and to mould the character of the younger generation through a synergy of science and spirituality



AMRITA
VISHWA VIDYAPEETHAM

School of
Biotechnology



0476 280 3127/1280



www.amrita.edu/biotech



biotech@am.amrita.edu



fb.com/amritabio