

GOA UNIVERSITY

POSTGRADUATE STUDIES & RESEARCH PROGRAMMES

HANDBOOK 2017-2018

1

IMPORTANT DATES AT A GLANCE

•	• Last date for submission of Application Form for Entrance Test/Admission form 02/06/2017								
	SCHED	ULE OF ENTRANCE TESTS							
•	Entran	ce Test for various Departments (including Cand	idates from other	06/06/2017					
Universities.									
	 Morning session: 10.30 am to 12.00 pm Chemistry, Electronics 								
	0	MBA (FS)							
	• Afternoon session I: 2.00 pm to 4.00 pm M.C.A.								
	0	Afternoon session I : 2.00 pm to 3.30 pm	Biotechnology, Econor	nics					
	0	Afternoon session II: 4.00 pm to 5.30 pm	Biochemistry						
•	Change	e of Faculty / Subject Test for All Departments	10.00 am to 11.30 am	07/06/2017					
•	Entran	ce Test, Women's Studies	11.45am to 1.15pm	07/06/2017					
	0	Afternoon session: 2.30 pm to 4.00 pm	B.L.I.Sc.,	07/06/2017					
•	Entran	ce Test, Marine Science	4.30 pm to 6.00 pm	07/06/2017					
•	Display	of the First Provisional List of Admission (includ	ing the waiting list)	09/06/2017					
٠	Last da	te for payment of fees by candidates in the First	List	14/06/2017					
•	Display	of the Second Provisional List of Admission (inc	luding the waiting list)	15/06/2017					
•	Last da	te for payment of fees by candidates in the Seco	ond List	19/06/2017					
•	Final Li	st for Admission		20/06/2017					
•	Last Da	ate for Late Admission to Semester – I and paym	ent of fees	22/06/2017					
•	• Last date for admission for Semester – III/ V and payment of fees 13/								

RAGGING ON THE CAMPUS IS STRICTLY PROHIBITED AND PUNISHABLE BY LAW

Please refer to Page No. 118 for UGC Regulations on Ragging and Page No. 128 & 129 for Affidavit to be submitted by the students and Parents/Guardians

The information contained in this Handbook is subject to changes with the revision of University Ordinances/Rules.

GOA UNIVERSITY

CHANCELLOR Smt. Mridula Sinha, Hon'ble Governor of Goa

VICE-CHANCELLOR

Prof. Varun Sahni

DEANS OF FACULTIES

Faculty of Languages & Literature Prof. Ishrat Bi Khan

Faculty of Natural Sciences Prof. Gourish M. Naik

Faculty of Commerce & Management Studies Prof. K.B. Subhash

Faculty of Engineering Prof. Rajesh S. Prabhu Gaonkar

Faculty of Law Dr. M.R.K. Prasad

Faculty of Design Vice-Chancellor

ADMINISTRATION

REGISTRAR Prof. Y.V. Reddy

CONTROLLER OF EXAMINATIONS Shri L. Macedo

DEPUTY REGISTRAR (ACADEMIC) Shri D.A.E. Rodrigues

LIBRARIAN Dr. V. Gopakumar

HEAD OF COMPUTER CENTRE Shri M. Chakraborty

ASSISTANT REGISTRARSSmt. Maya Sawant (Academic-PG Dept)ShShri A. Fernandes (Academic - General)SnSmt. S. J. Chari (Exam-PG)ShSmt B. T. A. D'Mello e Daniel (Legal)ShShri A. Verenkar (Finance)Smt. S.S.S. Neurekar (Admn-Teaching & Non-Teaching)

Faculty of Social Sciences Prof. N. S. Bhat

Faculty of Life Sciences & Environment Prof. M.K. Janarthanam

Faculty of Medicine Prof. Pradeep G. Naik

Faculty of Education Dr. Allan Abreo

Faculty of Performing, Fine Art & Music Shri M. V. Vengurlekar

FINANCE OFFICER Shri U.B. Naik

DEPUTY REGISTRAR (GENERAL ADMINSTRATION) Shri M. Shreedhara

UNIVERSITY ENGINEER Shri. V.L. Sawkar

ASST. DIR. OF PHYSICAL EDUCATION & SPORTS Shri M. Fernandes

Shri Sachin Patil (Academic-Colleges) Smt S. S. Figueiredo (Exam-Professional) Shri Sachin Sambhaji (Exam-UG) Shri A. Nagarsenkar (Purchases)

PREFACE

Goa University was established in 1985 by an Act of the State Legislature. As the only University in the State of Goa, Goa University has, since its inception, sought to address the academic aspirations of the student community in the State, through well-conceived undergraduate and postgraduate programs at its affiliated colleges and University departments.

The University has played a vital role in the generation and dissemination of knowledge, enhancement of capability by training human resource for the academic, industrial and services sectors. It has provided avenues for advanced learning in frontier disciplines of Science, Humanities and Social Sciences which were not adequately available in the State until the inception of the University. More importantly the University has played a vital role in empowering the students particularly coming from the disadvantaged and underprivileged segments of Goan society through the dissemination of various educational programs.

Goa University crossed an important milestone in its history by being reaccredited with Grade A from NAAC. Recently, the University has been ranked at 64th position by the MHRD under National Institute of Ranking Framework (NIRF). This has brought in more visibility to Goa University in the academic map of India. Further, it also highlights our sincere efforts in strengthening the academic culture in the state of Goa.

This Handbook contains a synopsis of all academic programs offered by the University at its campus, a brief profile of the departments, as well as other relevant information that will provide the students with an overview of the academic ethos at the University. Though care has been taken to provide information as per existing rules, the same is subject to changes with revision of the University's Ordinances/Rules from time to time.

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ACADEMIC CALENDAR 2017-2018

The Arrangement for Academic Terms for M.A./ M.Sc./ M.Com./ M.C.A./ B.L.I.Sc./ M.L.I.Sc. (on campus) for the Academic Year 2017-18 shall be as follows.

Items	Duration	No. of Days
Term -l	06/06/2017 to 20/11/2017	
Reopening	06/06/2017	
Teaching Begins	16/06/2017	
Ganesh Chaturthi Break	28/08/2017 to 29/08/2017	02 days
Diwali Break	19/10/2017 to 20/10/2017	02 days
Teaching Ends	01/11/2017	90 days
Preparatory Break	02/11/2017 to 05/11/2017	04 days
SEA- Sem. I / III/ V & Repeat	06/11/2017 to 20/11/2017	11 days
Exam & assessment		
Term-II	21/11/2017 to 30/04/2018	
Teaching Begins	21/11/2017	
Christmas Break	26/12/2017 to 29/12/2017	04 days
Teaching Ends	06/04/2018	90 days
Preparatory Break	07/04/2018 to 10/04/2018	04 days
SEA- Sem. II / IV/ VI & Repeat	11/04/2018 to 25/04/2018	11 days
Exam. & Assessment		
Summer Vacation	02/05/2018 to 05/06/2018	34 days
Reopening	06/06/2018	

Note: All breaks except the preparatory breaks shall be treated as Vacation for the Teachers.

OA-17.3 Attendance and eligibility to appear for Examinations

A student registered in a Semester / Term / Year, for any Programme (degree or diploma), shall be required to have a **minimum cumulative attendance of 75% of the total lectures and practicals** prescribed for the programme during that Semester /Term / Year. Although the attendance shall be cumulative for all the papers / courses taken together, in the given Semester / Term / Year, a student shall be required to have a minimum of 50% attendance in any individual paper / course.

INSTRUCTIONS TO STUDENTS

Wearing/displaying University ID cards by Post Graduate / Research students while they are on any part of the campus shall be compulsory and it shall be binding on the students to follow instructions given by any security staff of the University. The Arrangement for Academic Terms for M.A./ M.Com /M.Sc. in Affiliated Colleges for the Academic Year 2017-18 shall be as follows:

Items	Duration	No. of Days
Reopening	12/06/2017	
Term I	12/06/2017 to 17/11/2017	
Teaching Sem I /III	12/06/2017 to 10/10/2017	91 days
Ganesh Chaturthi Break	24/08/2017 to 03/09/2017	
Winter Break	11/10/2017 to 31/10/2017	
Teaching Ends	10/10/2017	
SEA: Sem I/Sem III/Repeat Exam and assessment	06/11/2017 to 20/11/2017	
TERM II	21/11/2017 to 28/04/2018	
Teaching Sem II/IV	20/11/2017 to 24/03/2018	91 days
Christmas Break	24/12/2017 to 02/01/2018	
Preparatory Break	26/03/2018 to 07/04/2018	
Teaching ends	24/03/2018	
SEA:Sem II/IV and Repeat Exam & Assessment	11/04/2018 to 25/04/2018	
Summer Vacation	30/04/2018 to 11/06/2018	
Reopening	12/06/2018	

ACADEMIC TERMS OF MANAGEMENT PROGRAMMES

Programme	5em 1 & 3		SEA		Sem 2 & 4		SEA		Internship	
MBA	Commence ment	End		End	Commence ment	End	Commence ment	End	Commence	End
	03.07.2017	17.11.2017	20.11.2017	24.11.2017	27.11.2017	06.04.2018	09.04.2018	13 04 2018	16.04.2018	29.06.2018
MBA (FS)	03-07.2017	08.11.2017	13.11.2017	20.11.2017	27.11.2017	06.04.2018	11.04.2018	17.04.2018	02.05.2018	30.06.2018

Programm e	XIII, XVII		Term X, XIV, XVIII		Term	G & XV	(Internship)	
IMBA	Commence ment	End	Commence ment	End	Commence ment	End	Commence ment	End
	03.07.2017	03.10.2017	04.10.2017	02.01.2018	03.01.2018	02.04.2018	03.04.2018	29.06.2018
	IMBA	(Hospitality	Travel and 1	Tourism) Part	I and II unde	er Semester S	ystem	

Programme	Sem	183	& 3 SEA		Sem 2.6.4		SEA		(Internship & Vacation)	
IMBA	Commence ment	End	Commence ment	End	Commence	End	Commence	End	Commence	End
	03.07.2017	17.11.2017	20.11.2017	24.11.2017	27.11.2017	06.04.2018	09.04 2018	13.04.2018	16.04.2018	29.06.2018

Vacation / Breaks					
28/08/2017 to 29/08/2017	02 Days				
19/10/2017 to 20/10/2017	02 Days				
26/12/2017 to 29/12/2017	O4 Days				
02/05/2018 to 05/06/2018	34 Days				
	28/08/2017 to 29/08/2017 19/10/2017 to 20/10/2017 26/12/2017 to 29/12/2017				

Academic Terms for Post Graduate Diploma in Clinical Genetics and Medical Laboratory Technique Programme

Last date of receiving applications:	19-06-2017
Display of 1 st Merit list:	23-06-2017
Last date for payment of fees by the candidates in the 1 st list:	27-06-2017
Display of 2 nd Merit list:	28-06-2017
Last date for payment of fees by the candidates in the 2 nd list:	30-06-2017
1 st Term:	
Teaching begins:	03-07-2017
Teaching ends:	13-10-2017
Ganesh Chaturthi Break:	28-08-2017 to 29-08-2017
Diwali Break:	19-10-2017 to 20-10-2017
Exam and Assessment:	30-10-2017 to 24-11-2017
2 nd Term:	
Teaching begins:	01-12-2017
Teaching ends:	16-03-2018
Christmas Break:	26-12-2017 to 29-12-2017
Exam and Assessment:	02-04-2018 to 30-04-2018
3 rd Term:	
Internship:	01-08-2018 to 31-01-2019
internship.	
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ELIGIBILITY CRITERIA FOR ADMISSION TO POST GRADUATE PROGRAMMES

ELIGIBILITY CRITERIA FOR DEPARTMENTS WITHOUT ENTRANCE TEST

The eligibility criteria for admission (unless specified otherwise) to the various Post-Graduate programmes leading to the degrees of M.A./M.Sc./M.Com is:

- 1. The candidate must pass the Bachelor's examination with a minimum of 40% marks in the respective discipline.
- 2. Admission is granted on the basis of Ordinance OA-20.6 and as per the eligibility criteria specified for the various Faculties therein.
- 3. Admission is based on the merit list prepared on the basis of marks obtained in the relevant subject in the qualifying examination.

ELIGIBILITY CRITERIA FOR DEPARTMENTS WITH ENTRANCE TEST

FACULTY: NATURAL SCIENCES

Programme: M.Sc. in Electronics

A candidate for being eligible for admission to a programme leading to the degree of Master of Science in Electronics must have passed the examination of the Degree of Bachelor of Science with Physics/ Computer Science/ Electronics of this University or from any other recognized University with at least 55 % in the aggregate of marks at the graduate level. Admission to this course of study shall be made as per provisions specified under **OA-20.3.1**

Programme: M.Sc. in Chemistry

- (a) A candidate for being eligible for admission to a programme leading to the degree of Master of Science in Chemistry, must have passed the examination of the degree of Bachelor of Science of the University or from any other recognized University, with at least 7 units of 100marks each in the first, second and third years taken together, in the subjects for which admission is sought in the annual pattern of examination. In Semester system of examination the number of papers or units shall be 14, with a total of 1400 marks, out of which eight papers are studied in F.Y. and S.Y. taken together and minimum 6 papers in T.Y. for being eligible for PG admission in that subject.
- (b) A candidate passing the T.Y.B.Sc. Examination with two subjects, that is, with at least three units in each subject, will be considered eligible to apply for admission to the M.Sc. Part I Programme in either of the said two subjects.
- (c) Candidates passing B.Pharm shall also be eligible to apply for M.Sc in Chemistry and considered for admission as per provisions notified in the concerned Department from time to time.

Merit List

- (A) The merit list in the Department of Chemistry shall be prepared on the basis of the total marks computed from the aggregate marks obtained at the qualifying examination (50% weightage) and the marks obtained in the Entrance Test (50% weightage), irrespective of the number of papers offered (6 or 3) in the subject at the qualifying examination.
- (B) In case of two candidates securing equal marks in the merit list, the candidate passing the qualifying examination with only one subject (six units) for which admission is sought, will be placed above the candidate passing the qualifying examination with two major subjects (three units + three units).
- (C) In case of two candidates securing equal marks in the merit list as well as both having offered only one subject (six units) for which admission is sought, the candidates having higher marks in the qualifying examination shall be placed above the other.

- (D) In case of two candidates securing equal marks in the merit list and having passed the qualifying examination with two subjects (three units + three units), candidate securing higher marks in the subjects for which admission is sought shall be placed above the other.
- (E) In case of two candidates scoring equal marks in the merit list and having passed in qualifying examination with two subjects as well as having secured equal marks in the subject for which admission is sought, candidate securing higher aggregate marks in the qualifying examination shall be preferred.
- (F) Unclaimed seats from the Reserved Category shall be transferred to the General Category.

Note: Candidates applying for admission to the M.Sc. (Chemistry) programme shall be eligible to be admitted to only one of the four specializations at M. Sc. (Part II).

Programme: MCA

Admission to the first Semester of the 3 year, six semester, full time programme leading to the degree of Master of Computer Applications, is open to any graduate with first Degree in any discipline and securing at least 55% aggregate marks, or 50% in case of SC, St or OBC, provided that the candidate shall have offered Mathematics as one of the subjects at the **HSSC (10+2) or at a higher level.**

Admission to the MCA programme is based on Entrance Test, which shall be conducted by the Department. The details about the Entrance Test shall be made available on the University website. Note: Mathematics will be compulsory paper at 10+2 science stream from the academic year 2016-2017.

FACULTY: LIFE SCIENCES & ENVIRONMENT

Programme: M.Sc. in Marine Science:

A candidate, for admission to M.Sc. (Marine Science) Programme, must have passed the examination of the Degree of Bachelor of Science of this University or an examination of any other University recognized as equivalent thereto, with at least seven units of 100 marks each in the first, second and third years taken together in any of the following subjects: microbiology, botany, zoology, chemistry, physics, mathematics, earth sciences.

In Semester system of examination the number of papers or units shall be 21, with a total of 2100 marks, in any of the above subjects, individually or taken together, in the six semesters programme of B.Sc.

The intake capacity for M.Sc. Marine Science is 25, out of which 12 seats under reserved categories will be filled as per guidelines of Govt. of Goa. 11 general category seats will be filled in the following manner:

- a. Physical Oceanography: B.Sc. with Physics/Mathematics/Electronics/Computer Science/IT
- b. Chemical Oceanography: B.Sc. with Chemistry/Industrial Chemistry/Analytical Chemistry/ Pharmaceutical Chemistry
- c. Marine Biology: B.Sc. with Botany/Zoology/Microbiology/Biotechnology/Biosciences/ Fisheries/ Aquatic Sciences
- d. Marine Geology: B.Sc. with Earth Sciences/Geology.

Among the 11 general category seats the first eight will be allotted to Serial No. 1 & 2 in the merit list in the respective specialization. Remaining three seats will be allotted based on the merit list in the different specialization.

Programme: M.Sc. in Biotechnology

Candidates having Bachelor's degree in Natural / Biological and Clinical Sciences, Agricultural / Veterinary / Fishery Sciences / Pharmacy / Engineering / Technology or 4-years B.Sc. (Physician Assistant) or Medicine (MBBS) or B.D.S., with at least 55% marks, shall be eligible for the Programmes.

Programme: M.Sc. in Biochemistry

A candidate for being eligible for admission to a programme leading to the Degree of Master of Science in Biochemistry shall have passed the examination of the Degree of Bachelor of Science of this University or from any other recognized University with Chemistry as principal subject with 6 units (or 3 units) at T.Y. B. Sc. and at least 8 papers of 100 marks each in the Semester pattern of examination of Biological Sciences (Botany, Zoology, Microbiology, Biochemistry, Biotechnology and allied subjects) in the first, second and third years taken together, OR any of the Biological Sciences as principal subject with 6 units (or 3 units) at T.Y. B. Sc and at least 8 papers of 100 marks each in the Semester pattern of examination of Chemistry in the first, second and third years taken together.

Admission to M.Sc. Biochemistry Program shall be on the basis of merit, derived from aggregate of 50% of marks secured a the examination of the Third year of the Bachelor of Science Program and 50% of marks secured at an Entrance Test.

The Entrance Test shall examine the candidate's ability to reason, logic and knowledge of Science as per syllabi of the S.Y. B.Sc. in subjects of Biological Sciences and Chemistry.

FACULTY: COMMERCE

Programme: M. Com.

For being eligible for admission to the programme leading to the degree of Master of Commerce (M.Com.) a candidate shall have passed the examination for a degree of Bachelor of Commerce, of this University or an examination of any other University recognized as equivalent thereto.

Programme: MBA (Financial Services)

Graduates in any stream including Commerce, Science, Arts, Engineering, Management and Professionals like CS, CA, ICWA, CMA, CAIIB and CFA, who have completed their graduation from Goa University or any other recognized University in India or abroad are eligible to apply for the programme. Those who are in final year of their graduation can also apply. A separate brochure with detailed information about the programme shall be available in the Department.

FACULTY: SOCIAL SCIENCES

Programme: M.A. in Economics

Admission to M.A. Economics programme is open to any student passing B.A. degree exams with six units or three units of Economics. The entrance test will consist of one Objective type test paper in Economics (of Two hours duration) of 100 marks and the syllabus would be the approved syllabus of the Goa University B.A Economics programmes in Micro Economics, Macro Economics and Contemporary Indian Economy.

Programme: Bachelor of Library and Information Science (B.L.I.Sc.)

Graduates in any faculty including Languages & Literature, Social Sciences, Commerce, Natural Sciences, Life Sciences & Environment, Engineering, Medicine, or equivalent with minimum 40% aggregate of marks at their graduation from any recognized university in India or abroad are eligible to apply for the B.L.I.Sc. Programme. For students of other universities in India and abroad, the relevant rules of Goa University pertaining to eligibility will prevail. If there are more candidates than the number of seats, an entrance examination will be conducted. Aggregate performance at both, the entrance test and the qualifying degree, will be considered for admission.

ELIGIBILITY CRITERIA FOR DEPARTMENTS WITH NATIONAL ENTRANCE TEST FACULTY: LIFE SCIENCES & ENVIRONMENT

Programme: M.Sc. in Marine Biotechnology

Candidates having Bachelor's degree in Natural / Biological and Clinical Sciences, Agricultural/ Veterinary /

Fishery Sciences / Pharmacy / Engineering / Technology or 4-years B.Sc. (Physician Assistant) or Medicine (MBBS) or B.D.S., with at least 55% marks, shall be eligible for the Programmes.

Admissions to Marine Biotechnology Admissions are granted on the basis of **"National Combined Entrance Examination in Biotechnology**" conducted by Jawaharlal Nehru University (New Delhi) at various centres.

N.B: The date of closure of the national list for M.Sc. Marine Biotechnology (which is usually 20–25thJuly each year) will be announced generally in the 1st week of July of each year. On the date fixed as above, the unfilled vacancies would be first offered (in order of merit at the entrance test) to students from the Goa state list who have passed the national entrance test. Any vacant seats remaining thereafter would be transferred to the M.Sc. Biotechnology Programme to fill up the total declared seats in the Dept. for Biotechnology and Marine Biotechnology.

FACULTY: MANAGEMENT STUDIES

Programme: MBA

Graduate in any subject such as Arts, Commerce, Science and Engineering, who has undergone the 10+2+3 or more than 3 scheme to graduate, is eligible for admission to MBA. Admission to a particular batch will be made based on an admission test. The nature of the particular admission test and procedures for admission will be decided by an Admission Committee appointed by the Vice Chancellor of the University for the particular Batch. A separate brochure with detailed information about the programme shall be available in the Department.

Programme: Integrated MBA (Hospitality, Travel and Tourism).

Candidates, who have passed the H.S.S.C. (10+2) or equivalent, shall be eligible.

Selection process: Admission for the 30 seats based on UGAT (Under Graduate Admission Test) conducted by AIMA / Institute level test or as prescribed by the Admissions committee.

Various other Post Graduate programmes such as LL.M., M. Pharm., M.S., M.D., M.D.S., M.E., M.H.S. and other Post Graduate Diplomas are offered by the University through its affiliated colleges/institutes. A list of these colleges/institutes is given in this Handbook under Section 10. Students may approach the respective colleges/institutions for the Prospectus/ Handbook.

NUMBER OF SEATS AVAILABLE IN EACH SUBJECT AND RESERVATIONS

S.No.	Programmes	Total No. of Seats	sc	ST	OBC	Differently Abled	Other Indian Universities	Wards of Ex-Serviceman
Α	P. G. Programmes*							
Faculty	of Languages and Literature	I						
a.	English	50	1	6	14	1	2	1
b.	French	15	1	2	4	1	1	
c.	Hindi	40	1	5	11	1	2	
d.	Konkani	50	1	6	14	1	2	1
e.	Marathi	30	1	4	8	1	2	
f.	Portuguese	15	1	2	4	1	1	
Faculty	of Social Sciences			I	1	I		
a.	Economics	40	1	5	11	1	2	
b.	History	55	1	7	15	1	2	1
с.	Philosophy	15	1	2	4	1	1	
d.	Political Science	30	1	4	8	1	2	
e.	Sociology	20	1	2	5	1	2	
f.	International Studies	15	1	1	4	1	1	
g.	Library and Information Science (B.L.I.Sc)	25	1	3	7	1	2	
h.	Library and Information Science (M.L.I.Sc)	20	1	2	5	1	2	
i.	Women's Studies	15	1	2	4	1	1	
Faculty	of Natural Sciences	I						
a.	Chemistry	80	1	10	22	2	2	1
b.	M.C.A.	60	1	7	16	2	2	1
с.	Earth Science	30	1	4	8	1	2	
d.	Electronics	15	1	2	4	1	1	
e.	Mathematics	30	1	4	8	1	2	
f.	Physics	40	1	5	11	1	2	
Faculty	of Life Sciences & Environment					L		•
a.	Botany	30	1	4	8	1	2	
b.	Marine Science	25	1	3	7	1	2	
с.	Marine Biotechnology	26	As p	er Cer	ntral Go	vernment rule	National A	dmissions
d.	Biotechnology	20	1	2	5	1		
e.	Microbiology	20	1	2	5	1	2	
f.	Marine Microbiology	20	1	2	5	1	6	
g.	Zoology	30	1	4	8	1	2	
h.	Biochemistry	20	1	2	5	1	2	
Faculty	of Commerce & Management Studies							
a.	M.Com.	60	1	7	16	2	2	1
b.	M.B.A. (FINANCIAL SERVICES)	60	1	7	16	2	2	1
с.	M.B.A.	60	1	7	16	2	All India	1
d.	Integrated M.B.A (U. G.)	30	1	4	8	1	2	
В.	Post Graduate Diploma Programmes							
a.	Clinical Genetics & Medical Lab. Tech.	20	1	2	5	1	2	

*The University may decide to change the number of seats depending on demand and available Infrastructure.

RESERVATION UNDER VARIOUS CATEGORIES

As per the revised guidelines of the UGC, reservation of seats in case of Scheduled Caste (SC) and Scheduled Tribe (ST) candidates for admission to various programmes of study in the University shall be on the basis of the reservation policy of the State Government.

2% of seats in each of the Post Graduate programmes of study, subject to a **minimum of one seat**, shall be reserved for candidates belonging to **SC** category.

12% of seats in each of the Post Graduate programmes of study, subject to a **minimum of one seat**, shall be reserved for candidates belonging to **ST** category. Candidates applying for admission under these categories shall be required to submit a certificate to that effect issued by the officer of the rank of the Deputy Collector or above.

27% of total seats, subject to a **minimum of two seats**, for admission to various programmes of study, shall be reserved for candidates belonging to other backward classes **(OBC)** of the State of Goa as per the directives of the State Government. Candidates applying under this category shall be required to submit a certificate issued to that effect by the officer of the rank of the Mamlatdar or above.

3% of total seats, subject to minimum one seat for admission to various programmes of study shall be reserved for differently abled candidates (as per State Government directives).

1% of total seats shall be reserved for Children of Ex- servicemen.

10% of seats, subject to a **maximum of two seats and a minimum of one seat** in each programme of study, except the MCA & MBA programmes of study, shall be made available for candidates of **other Universities.** Entrance Test shall be conducted by all Departments for admission to candidates from other Universities. Only those candidates who secure 40% or more marks in the Entrance Test shall be eligible for admission under this category.

Seats falling vacant under any of the above reserved categories shall be filled from the general category candidates with the approval of the Vice Chancellor.

15% of seats, over and above the allotted number of seats, shall be reserved as supernumerary seats for the overseas candidates, who are eligible for admission and are recommended by Govt. of India under scholarship from Govt. of India or under exchange programme (ICCR Programme). These seats shall be filled in accordance with the UGC guidelines. Out of the 15% supernumerary seats, one seat in each program will be reserved for Kashmiri Migrants (KM) as per directives of the UGC.

Notes: i. Percentage of seats mentioned above is subject to change depending upon directives of the State Government.

i. For National Admission programmes the reservation percentage is as per Central Government Rules.

Admission to candidates with more than one attempt

Candidates passing the qualifying examination in more than one attempt will be deemed eligible for admission, but for the purpose of equating their performance with that of candidates passing the examination at first attempt, the percentage of marks (aggregate) obtained by them shall be deemed to be less by 3% for every subsequent attempt than the actual percentage of marks obtained by them at the qualifying examination.

Note: For the attention of candidates from other Universities seeking admission to the above programmes:

- Candidates should have eligibility to study Post-Graduate programmes such as M.A. / M.Sc. / M.Com MCA / MBA in their respective branches.
- Candidates should fulfill minimum percentage of marks and pass grade as above in their qualifying examinations.
- Candidates fulfilling the above two conditions will have to answer an **Entrance Test** at Goa University.

MINIMUM NUMBER OF STUDENTS FOR POST GRADUATE CLASSES

If the number of candidates selected for admission to any Post Graduate programme at the entry level, i.e., the First Year, is less than five, the University reserves the right to suspend admission of students to that class for the particular academic year.

MERIT LIST IN THE DEPARTMENTS

Admissions to the Part I programme in M.A./M.Sc./M.Com and other Post Graduate Programmes shall be on the basis of merit.

Criteria for preparation of Merit Lists

To prepare Merit Lists, the Programmes are grouped in two Categories:

Category – I: Programmes for which no entrance tests are conducted for admission.

Category – II: Programmes for which entrance tests are conducted for admission, shall be as decided by the Academic Council and specified in the University Notification/ Hand Book each year.

(i)(a) Entrance Test shall be conducted by all the Departments for admission to candidates from other Universities. Only those candidates who secure 40% or more marks in the Entrance Test shall be eligible for admission under this category.

(b) The Entrance Tests shall be one paper of 100 marks, for 1½ hour duration and contain multiple choice type questions, evaluated with no negative marking unless separately specified in the handbook for a specific Programme. The entrance test shall be generally based on the syllabus up to the graduation level.

(c) For some Programmes, which shall be specified in the handbook from time to time, tests may be of $1\frac{1}{2}$ to 2 hour duration depending upon the number and nature of questions asked such as multiple choice/short/essay type answer. The entrance test shall be based on the syllabus up to the graduation level.

(d) However for those Department/Programmes which admit students from across the disciplines such as MCA, MSc. in Biotechnology, Marine Science, Biochemistry and other such Programmes, the test shall be based on analytical ability, logical reasoning and the specific subject syllabus, where applicable, of up to the level of HSSC or as notified in the concerned departments. There shall be negative marking for evaluation of entrance test in MCA.

(e)For candidates seeking admission for M. A. Programmes under the Change of Faculty provision, the modalities of which shall be specified under OA-20

A separate fee shall be charged per candidate for appearance at each additional Entrance Test, which shall be specified in the University Handbook. For those departments who publish their own prospectus / Handbook, the fees shall be specified in the respective Handbook.

(ii) Candidates may be from 6 Unit or 3 Unit Bachelors Programme.

- (a) For being considered as a 6 Units candidate, the candidate shall have to pass in 8 papers in F.Y and S.Y. taken together and 13 papers, including marks of Project paper, in the T.Y., in the subject for which admission is sought. The number of papers shall be 21 in the chosen subject for PG admission (2100 marks), and for T.Y, the candidate shall have aggregate marks out of 1300.
- (b) For being considered as a 3 Units candidate, the candidate has to pass in 8 papers in F.Y and S.Y taken together and 7 papers, which includes marks of Project paper, in the T.Y., in the subject for which admission is sought. The total number of papers shall be at least 14, with total of 1400 marks in all six semesters, to be eligible for admission to the Post Graduate Programme in the concerned subject.

Preparation of Merit List

- (i) A common merit list, including General, SC, ST and OBC category candidates, and others, shall be prepared for selecting candidates for admission to the Programme.
- (ii) For selecting candidates for admission to the Programme under SC, ST,OBC and other categories, a separate Merit List of candidates in each category, who do not get admission under General Category, shall be prepared.
- (iii) A separate Merit List shall also be prepared for candidates qualifying for admission from other Universities.
- (iv) A wait-list of candidates shall also be prepared in each of the above categories.
- (v) Candidates passing the qualifying examination with more than one attempt shall also be eligible for admission. However, 3% of aggregate marks scored by the candidate at the qualifying examination shall be deducted for each additional attempt at passing the qualifying examination.
- (vi) (a) For working out percentage of marks in the Merit List, a 6 Unit candidate shall have aggregate marks out of 1300 in the T.Y.

(b)For working out percentage of marks in the Merit List, a 3 Unit candidate shall have aggregate marks out of 700 in the T.Y examination in the subject in which Post Graduate admission is sought including the marks obtained in the project paper. The project paper marks have to be included even if the project work is carried out in the subject other than in which the Post Graduate admission is sought.

- (vii) **The merit list for Programmes under Category I, that do not have an Entrance Test**, shall be prepared by considering only the percentage of aggregate of T. Y. examination marks (Semester V and Semester VI) as above. The candidates securing a distinction or class in the qualifying examination with six units shall be placed above those with distinction or the same class with three units.
- (viii) The Merit List for Programmes under Category II, that have an Entrance Test, shall be prepared as follows :

In case of Programmes to which candidates seeking admission have qualified in the same subject, 50% weightage for marks obtained in the entrance test and 50% weightage of the T.Y. (Semester-V and Semester-VI) examination marks of those papers, 3 units or 6 units, in the concerned subject for which admission is sought.

In case of Programmes that admit students from different streams, which shall include change of Subject, the percentage T.Y. marks will be percentage either of one subject of 6 units or of two subjects of 3 units each.

- (ix) In case of candidates in Category I who have not answered the Entrance Test, and have secured equal marks in the Merit List,
- (a) The candidate having passed the qualifying examination with 6 Units in the subject for which admission is sought, and securing higher marks in the aggregate at the F.Y. and S. Y., shall be placed above the other candidate(s).
- (b) The candidate having passed the qualifying examination with 3 Units in the subject for which admission is sought, and securing higher marks in the aggregate of the concerned subjects at the F.Y. and S. Y., shall be placed above the other candidate(s).
- (x) In case of candidates in Category II who have answered the Entrance Test and have secured equal marks in the Merit List.
- (a) The candidate passing the qualifying examination with six units in the subject for which admission is sought, shall be placed above the candidate(s) passing the qualifying examination with two subjects of three units each.
- (b) The candidate having passed the qualifying examination with 6 Units in the subject for which admission is sought, and securing higher marks in the qualifying exam, shall be placed above the other.

- (c) The candidate having passed the qualifying examination with 6 Units in the subject for which admission is sought, and securing equal marks in the qualifying exam, but having secured higher marks in the aggregate of F.Y. and S.Y. marks in the subject for which admission is sought, shall be placed above the other.
- (d) The candidate passing the qualifying examination with two subjects (three units + three units), and securing higher marks in the subject for which admission is sought shall be placed above the other.
- (e) The candidate having passed in qualifying examination with two subjects, having secured equal marks in the subject for which admission is sought, and securing higher aggregate marks in F.Y. and S.Y. marks, shall be placed above the other.
- (f) The candidate from other streams, who have passed the qualifying examination with equal marks and secured higher marks in the aggregate of F.Y. and S.Y. marks shall be placed above the other.
- (g) Unclaimed seats from the Reserved Categories shall be transferred to the General Category as defined under OA-20.

CHANGE OF FACULTY / SUBJECT:

Candidates who have passed Bachelor's degree examination of this University or any other recognized University and secured at least 40% of the aggregate marks may seek admission to the

Master's Degree Programme in a subject in which they have not obtained the Bachelor's degree with a minimum three units. Similarly candidates passing out the Bachelor's Degree of this

University or of any other recognized university in a Faculty other than the Faculty under which admission is sought, with at least 40% of the aggregate marks may also seek admission to the Master's Degree Programme of study of this University. Both these types of candidates will have to apply to the Registrar, in the prescribed form, on or before the date specified in the University Notification for such change of subject or faculty.

- (a) A written test consisting of two papers as under will be held in the subject for which the students desirous to be admitted under this scheme of change of faculty/subject for admission to the Master's Degree programme.
 - i) A General paper of 1 hour duration for100 marks, in the subject concerned. The questions asked could be short answer as well as essay-type answer.
 - ii) An objective type paper of 1 hour duration for 100 marks, to test the students general acquaintance with the subject concerned.
- (b) The candidates should secure a minimum of 40 % marks in each paper to pass the written test.
 - (i) The test will be conducted by the Head of the Department in which admission is sought by the candidate.
 - (ii) Candidates who have secured at least 40% marks in each of the above papers shall be considered eligible for admission to the Master's Degree Programme in the subject, against the vacant seats available, if any, after students from the merit lists are given admissions.

ORDINANCE OA-18 FOR CREDIT-BASED MASTERS DEGREE PROGRAMMES

OA-18 Ordinance governing the M.A., M.Sc. and M.Com. Programmes of study conducted by the on -campus Departments of the Goa University and its affiliated colleges in the Faculties of Languages and Literature, Social Sciences, Natural Sciences, Life Sciences and Environment, and Commerce, based on the Choice Based Credit System of Instruction (Effective from 6th June, 2016).

OA-18.1 General

The eligibility, procedure and conditions for admission to the M.A., M.Sc. and M.Com. Programmes and the rules governing (i) reservation of seats in each Department, (ii) merit list, (iii) registration and payment of fees shall be as provided in the respective Ordinances/notifications.

OA-18.2 Programme Structure

- 1. The Programme shall be based on a system of time-integrated Units called Credits, under the Choice Based Credit System (CBCS) and shall comprise Core Courses, Optional Courses and Dissertation (optional).
- 2. A student shall be eligible for the award of Master's Degree on successful completion of minimum of 80 Credits, to be completed over a minimum of four Semesters.
- 3. The total number of 80 Credits shall comprise 40 for Core Courses and a minimum of 40 for Optional Courses.
- 4. A student shall be required to obtain 60 Credits from the parent Department in which the student is registered, which shall comprise the 40 Core Credits, and 20 optional credits which may include the dissertation. The remaining 20 Credits may be earned by the student by opting for optional Courses, including dissertation, from within the Department or outside the Department/University.
- 5. The Courses may cover only theory, theory and tutorial or only practical, or any other activity as specified under OA-18.2.6.
- 6. Optional Courses may also comprise self-learning Courses in the form of field work, project, summer training, online Courses, and other such Courses; the BoS shall specify the Credits for these activities.
- 7. A student shall also be permitted to obtain additional Credits. The degree/final grade shall be awarded /computed based on his/her performance in Core Courses and the best performance in the Optional Courses, to fulfill the minimum number of Credits required for the award of the Master's Degree. Additional Credits, if any, shall be depicted in the final transcript/mark sheet.
- 8. Permission to transfer Credits in case of Institutions not affiliated to Goa University, may be allowed on a case to case basis, following the Credit recognition procedure. Such Courses, when opted for by the students of a Department, may be approved provisionally by the Departmental Council and placed for ratification before the Board of Studies at its subsequent meeting.
- 9. Each Course may comprise 1 to 6 number of Credit(s).
- 10. One Credit of a Theory Course shall be equivalent to 15 contact hours of learning activities including lecture, group discussion, seminar, problem solving, tutorial, assessment and such others.
- 11. One Credit of a Practical Course shall be equivalent to 30 clock hours of laboratory /field work/ study tour, that is, 15 practical sessions each of 2 clock hours duration, or its equivalent. However, in the case of Psychology subject, one credit of the Practical Course (Psychology Experiments and Psychological Testing) shall be equivalent to 15 clock hours of laboratory/field work/study tour.

- 12. The ratio of Credits between theory and practical/laboratory/field Core Courses shall be 3:1 or as recommended by the Board of Studies.
- 13. The Departments shall notify the Core and Optional Courses offered to students for the following Semester. The Department shall also provide for adequate number of Optional Courses in case a student desires to obtain all Credits from the parent Department.
- 14. Minimum number of students for an Optional Course shall be not less than five. In case there are less than five students for a Course, the permission of the Vice-Chancellor shall be obtained before the commencement of teaching for the said Course.
- 15. Dissertation shall be of 8 Credits and shall be optional.
- 16. A student shall not be permitted to register for less than 10 Credits and more than 25 Credits in a Semester, during the two - year Programme. However, in case the dissertation is being carried out only in Semester IV, entailing extensive field work, and/or work at other institutions, the student may be permitted to register for only the dissertation comprising 8 Credits.

OA-18.3 Scheme of Instruction

- 1. The Departmental Council (DC) or Departmental Faculty Committee (DFC) constituted for this purpose in the colleges, shall be responsible for the proper implementation and conduct of the Credit-based Master's Degree Programme(s). The DFC shall comprise the Principal of the College, Co-ordinator of the Course and teachers teaching the Programme.
- 2. Ordinarily one teacher shall teach an entire Course, unless the Course requires more than one teacher to meet intra- or inter-disciplinary requirements. The Course outline/session plan for each Course offered during the Semester shall be submitted by the teacher/ instructor to the DC/DFC before the commencement of teaching of the said Course.
- (a) The DC of University Departments shall prepare the details of objectives, themes and topics of Core and Optional Courses for discussion and recommendation of BoS and approval by the Academic Council.
- (b) In case of Programmes offered only in Colleges, the BoS shall prepare the objectives, themes and topics and recommend it for the approval of the Academic Council.
- (c) All the approved Courses, either Core or Optional, shall be uploaded on the University/ College Website prior to offering of the Course.
- 3. The Course outline/session plan shall depict the Objectives of the Course and the themes in terms of both teaching/ learning and assessment.
- 4. The Courses shall be designed with a hierarchical structure indicating the complexity levels and may be prefixed with number series of 100, 200, 300, 400 to denote the level of the Courses. The numbers do not necessarily represent the Semester(s). The DC/BoS shall identify the pre-requisite for each Course.

OA-18.4 Dissertation

- 1. The Dissertation shall be spread over third and fourth Semesters and shall not generally constitute an entire Semester-equivalent of Credits. However, the DC/DFC may consider on case to case basis and reduce it to one Semester, if it involves full field-work or dissertation in other Institutes or Industries.
- 2. The DC/DFC shall decide at the end of the second Semester, the modalities relating to the dissertations, which shall be informed to the students.

- 3. Topics for dissertations shall be finalized by the student in consultation with the guiding teacher.
- 4. The DC/DFC shall decide the number of students each teacher can guide with an equitable distribution of students to Guides for sharing the workload. Such workload shall be computed as one hour per week per student, up to a maximum of four hours per week for four or more students.
- 5. The student shall declare, in the prescribed proforma, that the dissertation is his/ her own work and that all the sources used are duly acknowledged.
- 6. The guiding teacher shall certify, in the prescribed proforma, that the dissertation is an original work of the candidate completed under his supervision.
- 7. Students shall submit the dissertations to the Department through the guiding teacher not later than 2 weeks before the end of the term. Ordinarily, no student shall be allowed to submit the dissertation after the due date.
- 8. Every student shall submit one soft copy on a CD and two bound copies of the dissertation to the Department in the standard format as under: The size of paper: A4 (approximately 29 cm x 21 cm) except for drawings, graphs and maps, on which no restriction is placed, with a margin of 3 cm on the left hand side and 2.5 cm on all the other three sides. The dissertation should be neatly typed in double space and only on one side of the paper. The front cover of the dissertation, bound in a standardized form, should contain the title of the dissertation, the Degree, date and name of the student concerned.

OA-18.5 Scheme of Examination

- 1. The assessment of all Courses shall comprise continuous intra-Semester Assessment (ISA) and Semester-end Assessment (SEA) and shall be fully internal. However, in case of the Programmes which are offered both at Goa University campus and at affiliated Colleges, the theory examination shall be conducted by the University and common Question Papers along with answer keys for SEA shall be prepared. The SEA of practical and optional courses in case of Science subjects (M.Sc. programmes) shall be conducted by the teachers as decided by respective DC/ DFC.
- 2. (a) Each teacher of the concerned Course shall be the examiner for the portion he/she has taught. The teacher/instructor of the Course shall be the Course Coordinator and shall coordinate the teaching, examination and evaluation (both continuous ISA and SEA) of the Course and maintain records of all assessments/tests/ examinations.
 - (b) When more than one teacher is involved in teaching a Course, one teacher preferably a regular teacher from the Department shall be identified as the Course Co-ordinator by the DC/DFC.
 - (c) However, in case of Programmes which are offered at Goa University campus and also at affiliated Colleges or in college(s) only, but excluding M.Sc. Programmes, SEA for all Courses shall be through Central Assessment Programme (CAP) conducted by the University.

In case of M.Sc. Programmes which are offered at Goa University campus

(d) and also at affiliated Colleges or in college(s) only, CAP is applicable only for Core Courses (theory only). Paper setting and evaluation of all the optional courses and practical courses

or practical components of the courses, either core or optional will be carried out at respective places by the concerned teachers.

- (e) In case of courses coming under the purview of CAP, Question papers shall be common and copies of answer keys prepared by the paper setters shall be available for the examiners.
- (f) For the purpose of paper setting and CAP, the BoS shall recommend a master panel of paper setters and examiners comprising both external and internal (for the purpose of coordination), which shall be placed before the Academic Council for approval.
- (a) The nature of assessments may be Written/Oral, Open/Closed book, Scheduled/ Surprise, Objective / Multiple-choice, Short-answer type, Essay type, Seminar, Assignment, Experimental work, Fieldwork, Viva-Voce, Peer group assessment, Class participation as described in the Course outline.
 - (b) For each theory Course, a written or any other evidence-based component shall constitute at least 50% of ISA and SEA.
- 4. A Course shall have a 'single passing-head' based on the combined performance at the continuous ISA and SEA. Fractional marks shall be rounded off to the nearest integer only at the time of calculating the Course grade.
- 5. The DC/DFC shall constitute a Departmental Examination Committee (DEC) to monitor the conduct of the continuous ISA and SEA.
- 6. The Course-wise time-table of internal assessment shall be displayed at the beginning of each Semester. Every teacher shall submit to the Head of the Department (HoD)/Principal, the question paper of the assessment and the marks assigned within seven days after the conduct of each assessment. The result of each assessment shall be displayed on the Notice Board and the assessed material shall be shown to the candidate(s) by the concerned teacher and submitted to the HoD along with the question paper in a sealed envelope.

OA-18.6 Evaluation of Courses

- 1. (a) A One Credit Course shall carry 25 marks. All other Courses shall carry marks proportionate to the number of Credits.
 - (b) The weightage for the continuous ISA and SEA in both theory and practical Courses shall be 40% and 60% respectively.
 - (c) There shall be two ISAs for each Course of two or more Credits, each of 20%, for a total of 40% of total marks of the Course. However for a 1 Credit Course, a single ISA shall be conducted and evaluated for 40% of total marks of the Course. An additional assessment, irrespective of the number of Credits a Course carries, may be provided on the request of students to improve the Grade, in which case the best two assessments shall be considered, or best one in the case of a single Credit Course. All internal assessments shall be completed by the last teaching day of the Semester.
- 2. Ordinarily a teacher who teaches a particular Core Course or part thereof shall assess the performance of the students in the ISA component of that Course. Guest Faculty/contributory teachers teaching a Course or part thereof, shall conduct such assessment in consultation with the Course Co-ordinator.

- 3. There shall be a continuous review of the teaching Programme by the DC/DFC in every Semester.
- 4. The SEA shall be conducted as per the academic calendar. The DEC shall work out the examination schedule for SEA in consultation with other departments from where the students are taking Optional Courses, which shall be approved by the DC/DFC and displayed on the Notice Board before the last teaching the Semester. The same shall be communicated to the concerned departments. However, in case of the Programmes which are offered both University campus and at affiliated Colleges, the examination schedule for SEA of Core Courses shall be announced by the office of the CoE.
- 5. The duration of all comprehensive written SEA examinations carrying 25 marks or less, shall be of one hour; SEA carrying above 25 marks and up to 50 marks, shall be of two hours; SEA carrying above 50 marks, shall be of three hours.
- 6. The duration of SEA of all Laboratory Courses/Field Course shall be decided by the BoS.
- 7. (a) The SEA answer scripts shall be assessed by the teacher concerned, within one week from the date of the examination. Before finalizing the scores obtained, the answer scripts should be shown to the students after specifying the date and time on the Notice Board in advance.
 - (b) However, in case of the Programmes which are offered both at Goa University campus and at affiliated Colleges or in Colleges only, the following are applicable:
 - (i) SEA for Core Courses (Theory) of Science subjects shall be conducted and evaluated through CAP as per OA-18.5.2 (c), (d).
 - (ii) SEA for all courses of other than M.Sc. programmes shall be conducted by the University and evaluated through Central Assessment Programme (CAP).
 - (iii) In these cases there is no provision of showing the answer books to students. However students are entitled to apply for revaluation of their answer books.

OA-18.7 Evaluation of Dissertation

- (a) The dissertation shall be assessed by the Guide/Supervisor and by the DC/DFC. The student shall make a presentation of the work before the DC/DFC and students of the Department. The DC/DFC shall assess the work. Average of marks of all teachers attending the presentation shall be the evaluation of the dissertation which shall carry 50% of the total marks assigned for dissertation.
 - (b) The Guide shall assess the dissertation independently for 50% marks.
- 2. To pass in the dissertation a student has to secure a minimum grade of 'P' as indicated under OA-18.8.1.
- 3. A student who fails in the dissertation may be allowed to re-submit the dissertation after incorporating suitable modifications under the guidance of the teacher or may be permitted to register for optional courses equivalent to 8 credits.

OA-18.8 Award of Grades

1. Marks awarded in each Course shall be represented in the form of Grades in the grade sheet issued at the end of each semester. The Final result shall be declared as Cumulative Grade Point Average (CGPA).

Range of percentage	Grades	Grade Points
scored		
85 - 100	O (Outstanding)	10
75 – <85	A+ (Excellent)	9
65 - <75	A (Very Good)	8
55 – <65	B+ (Good)	7
50 - <55	B (Above Average)	6
45 - <50	C (Average)	5
40 - <45	P (Pass)	4
0-<40	F (Fail)	0
	Ab (Absent)	0

2. The marks awarded in the ISA and SEA shall be added for awarding the grade for each Course, as indicated in the table below:

- 3. Every student shall have to secure a minimum of 'P' grade to pass the Course.
- 4. Provisions for grace marks under OA 5.16 shall not be applicable to Credit-based Masters Programmes.
- 5. (a) Students who do not secure a minimum of 'P' Grade in Core Courses shall have the option of answering SEA in the following Semester(s), or to repeat the Course by registering for the Course whenever it is offered in the regular Programme.
 - (b) In the case of Optional Courses, a student shall have the option of answering SEA in the following Semester(s),or to repeat the Course by registering for the Course whenever it is offered in the regular Programme, or register for an alternative Optional Course to secure requisite number of Credits.
 - (c) Appearance in minimal number of ISAs as prescribed, and in SEA, is compulsory for passing.
 - (d) There shall not be any supplementary examinations for SEA. However, repeat examinations shall be conducted as per the allotted time frame for SEA in the academic calendar. In such cases, the ISA score shall be carried forward. However, if the candidate is re-registering for a course, neither the ISA nor the attendance of the previous attempt shall be carried forward.
- 6. The Course Co-ordinator shall be responsible for finalizing the assessment pattern and to ensure that the assessment reflects teaching/ learning-time and weightage assigned to the topic/unit/module as prescribed in the Course outline.
- 7. (a) The weighted grade points of a course shall be calculated by multiplying the grade points (Gi) scored by a student, by the number of Credits of the respective course.
 - (b) The Cumulative Grade Point Average (CGPA) shall be calculated on completion of 80 Credits, or more.
 - (c) CGPA is the ratio of the sum of the product of the number of Credits as specified under OA-18.8.6(e). It shall be calculated as follows:

Where 'Ci' is the number of credits of the *i*th course and 'Gi' is the grade point scored by the student in the *i*th course.

- (d) The CGPA shall be rounded off to 2 decimal points and recorded in the transcripts.
- (e) For calculating CGPA, all the core courses (40 credits) and best of the grades obtained for optional course equalling 40 credits shall be considered.
- (f) Wherever the number of best Optional Credits are more than 40, the Grade Point of an Optional Course having the least Grade Point amongst these, shall be computed for a lesser number of Credits, so as to obtain a total of 40 Optional Credits. Such reduction in the weightage shall be reflected in the mark list.
- (g) For each Course a student securing 'F' or 'Ab' Grade in the Course shall not be entitled to earn any Credits for that Course.

CGPA	Grades
10.0	O(Outstanding)
9.0-<10	A+ (Excellent)
8.0-<9.0	A (Very Good)
7.0-<8.0	B+ (Good)
6.0-<7.0	B (Above Average)
5.0-<6.0	C (Average)
4.0-<5.0	P (Pass)
< Required Credits for award of	F (Fail)
the Degree	

(h) The CGPA shall be converted to the Final grade, as shown in the table below:

- (i) In the case where CGPA is higher than the indicated upper limit in the two decimal digits by a factor of ≥0.005, then the higher grade will be awarded. Eg. A candidate with CGPA ≥4.995 will be awarded 'C' grade. A candidate who has not earned required credits to be awarded the Degree, shall be given a final grade 'F' and be declared as 'Fail'.
- 8. At the end of each Semester, within one week from the last teaching day, the ISA scores shall be approved by the DC/DFC and thereafter sent to the Controller of Examinations (CoE). SEA scores shall be finalised and approved by DC/DFC and thereafter sent to the CoE within a week of the last examination. The Examination section shall prepare Grades and declare results within two weeks of the receipt of the SEA scores. However, in case of the Core Courses evaluated through CAP, marks awarded shall be directly processed by the CoE for declaration of results.
 - 9. Students who have not completed the Programme in four Semesters, are permitted to reregister for additional Semester(s) and opt for Courses, provided that these Courses are available for instruction in the Department. Such candidate(s) shall be treated as supernumerary for the particular Course.

ORDINANCE OB-12 GOVERNING MASTER OF PHILOSOPHY (M.PHIL.) PROGRAMME

OB-12.1 The degree of Master of Philosophy (M.Phil.) will be awarded in the following faculties:

- (1) Languages & Literature
- (2) Social Sciences
- (3) Natural Sciences
- (4) Life Sciences and Environment
- (5) Commerce & Management Studies

OB-12.2 A candidate for being eligible for admission to the M.Phil degree programme must have passed the Master's degree examination in the faculty concerned of the University or an examination of any other University recognized as equivalent thereto. In case of M. Phil in Environmental Science, a candidate holding a Master's Degree in any of the faculties as specified under OB-12.1 shall be eligible. The candidate must have at least a second class with B+ grade. However, the provision shall not be applicable to the teachers who are appointed prior to 1.1.1986 and hold post-graduate degree in pass class or second class with B grade.

OB-12.3 The fee structure for the M. Phil. Programme shall be as stipulated by the University.

OB-12.4 The enrolment to the M.Phil programme shall be done at the beginning of each academic year with entrance test. The Entrance Test shall consist of two papers: one general aptitude test (on lines of UGC NET) and one to assess the subject in which the candidate desires to take admission. The procedure for the test and exemption shall be as provided in subsections below:

(a) Paper-I shall be Research Aptitude Test of two hours duration having objective type questions and shall carry a total of 100 marks. The paper shall cover: (1) Language competency, (2) numerical ability, and (3) logical reasoning.

(b) Paper-II shall be subject specific, and shall be of two hours duration for 100 marks consisting of: (1) Multiple choice questions of 50 marks and (2) theoretical/ descriptive questions for 50 marks.

(c) Syllabus for the paper shall be notified by the University.

(d) The Entrance test shall be followed by personal interview at respective departments.

OB-12.5 The duration of the M. Phil programme shall be of **one** year consisting of Semesters I and II.

OB-12.6 The M. Phil. programme shall include three theory papers to be taught in Semester I and a dissertation to be carried out during Semester I and II under the guidance of a teacher of the concerned faculty. The dissertation topic shall be assigned to the student by the guiding teacher at the beginning of the M. Phil Programme.

OB-12.7 The examination in the theory papers shall be held at the end of the first semester. A student shall be permitted to submit his/ her dissertation by the end of the second semester provided he/ she has passed the examination in all three theory papers.

OB-12.8 For those students who fail in one or more theory papers, provision shall be made for a repeat examination in the following Semester(s).

OB-12.9 If a candidate is unable to submit his/her dissertation at the end of the second semester, he/she can be given extension initially for one semester for the submission of the dissertation for which he/she shall have to apply to the Head of the Department through his/her guide, to get an extension. If for some reason a candidate requires extension for one more semester, he/she shall have to apply to the Vice Chancellor through Head of the Department giving reasons for such a request. A student shall continue to pay the prescribed yearly fees for the extension period, failing which the registration shall be liable for termination/cancellation.

OB-12.10 A candidate is expected to complete the M.Phil programme in two semesters. If a candidate isunable to complete the entire programme in double the duration, his/ her registration to the M.Phil programme shall stand cancelled.

OB-12.11 The format of the dissertation shall be the same as that of the Ph.D. thesis. A candidate shall have to submit four copies of the dissertation along with a certificate signed by the student and the guide and attested by the Head of the Department. The certificate shall be of the following form. "It is certified that the dissertation is a record of research work done by the candidate himself/ herself during the period of study under the guide and that it has not previously formed the basis for the award of any degree or diploma of Goa University or elsewhere".

OB-12.12 The detailed syllabi of the theory papers shall be prepared by the respective Board of Studies.

OB-12.13 In every subject Paper I shall be compulsory and Papers II and III shall be optional. Paper Ishall be on Research Methodology and Techniques. The remaining two papers shall be from the list of optional papers approved by the respective Board of Studies.

OB-12.14 The medium of instruction and examination for the M.Phil degree programme shall be English except for language programmes for which the medium of instruction may be the respective language.

OB-12.15 Each theory paper shall be of 100 marks. The evaluation of each paper shall consist of 50marks for Continuous Intra Semester Assessments (ISA) and 50 marks for the Semester End Assessment (SEA). The ISA component shall be done by the teacher teaching the programme. The SEA of the compulsory theory paper shall be by double assessment; each paper shall be assessed by one external and one internal examiner. The final marks obtained in the paper shall be the average of two assessments. In case the difference between the two assessments is more than 20% in a paper, a third examiner shall be appointed. The average of the three scores shall be treated as final marks obtained by the candidate.

The dissertation shall carry a total of 200 marks and shall be evaluated by two experts, one of which shall be from outside the State, the final marks shall be the average of the two assessments. The student shall undergo a viva-voce examination which shall be an open defence.

OB-12.16 The appointment of examiners shall be as per the provisions of OB-4.

OB-12.17 The minimum marks for passing theory papers shall be 50% of maximum marks under each head of passing: ISA and SEA. The minimum marks for passing the dissertation shall be 50% of maximum marks. There shall be separate heads of passing for each Theory paper, Dissertation and Viva voce.

OB-12.18 The candidates who obtain 50% to less than 60% marks in aggregate shall be declared to have passed in the second class, while those who obtain 60% marks and above in the aggregate shall be placed in the first class in Semester-I examination.

OB-12.19 There shall be no revaluation. However, candidates may apply for verification of the assessed answer books, as per the existing provisions OA-5.15(B)(i) vide notification no. GU/II/3-3/Amend-Ord./2002/VoI.VI/5448 dated 11th February, 2004.

OB-12.20 In case the candidate fails in the Dissertation, he/she shall be declared failed in the M. Phil programme.

OB-12.21 A candidate must pass in all the theory papers, Dissertation and Viva voce examination in order to obtain the M.Phil degree.

OB-12.22 The application for examining dissertation should be submitted with the prescribed examination fee along with a brief synopsis of the dissertation in five copies, duly signed by the guide, submitted through the Head of the concerned Department.

OB-12.23 A committee consisting of the following members be constituted for appointment of an external examiner/s for assessing the dissertation

1. Vice Chancellor	- Chairman
2. Dean of the Faculty concerned	- Member
3. Head of the Department	- Member
4. The Guide	- Member
5. Controller of Examinations	- Member Secretary

OB-12.24 The Committee shall appoint two external experts, out of which at least one shall be from outside the State, to evaluate the dissertation.

OB-12.25 The Viva voce shall be conducted by a Board consisting of one of the External Experts appointed by the Vice-Chancellor, Head of the Department and the Guide.

REFUND OF TUITION FEES

a) If a student chooses to withdraw from the programme of study in which he/she is enrolled, the following four-tier system shall be followed for the refund of fees remitted by him/her.

Sr. No.	Point of time when notice of withdrawal of admission is served to the College/University	% of refund of Aggregate fees*
1.	15 days before the formally notified last date of admission.	100%
2.	Not more than 15 days after the formally notified last date of admission.	80%
3.	More than 15 days but less than 30 days after formally notified last date of admission.	50%
4.	More than 30 days after formally notified last date of admission.	00%

* (Inclusive of tuition fees and non-tuition fees but exclusive of Caution Deposit and Security Deposit)

- b) In case of (1) in the table above, 10% of the aggregate fees shall be deducted as processing charges from the refundable amount.
- c) Fees shall be refunded to an eligible student within fifteen days from the date of receiving a written application from him/her in this regard.
- d) The fees of students who have already been admitted to a programme of the University and have paid the fees and are subsequently admitted to another programme shall have to pay the fees for the final admission and claim the refund of fees paid earlier, in which case no administrative charges shall be deducted from fees paid earlier by the student.

However, if the fees payable for the both the programmes are the same, the fees paid earlier shall be transferred to the final programme where admission is sought.

e) All other cases of the refund of the fees will be decided on case to case basis on its merit.

FACULTY OF LANGUAGES & LITERATURE

Dean: Prof. Ishrat Bi Khan

Department of English	Programmes Offered	Intake	Fees (Rs.)
Established: 1965(CPIR)	M.A.	50	5630.00
Code: EG	M.Phil.		11235.00
	Ph.D.		11025.00

The Department offers postgraduate programme in English and provides opportunities for doctoral research leading to Ph.D. in English. Literature is a major thrust area of the Department with emphasis on British, Indian, American and other literatures. Comparative Literature, Translation Studies and Cultural Studies are allied areas of study for the Department.

Head of Department: Caldeira, N.,

List of Faculty & Specialisation

Professors

Bhat, K. S, Ph. D. (Mangalore University) (Literary Theory, Critical Theory & Cultural Studies).

Caldeira, N, Ph. D. (Goa University) (Goa Cultural Studies, Post-Colonial Literature, Linguistics and American Literature).

Associate Professor

Fernandes, A. R, Ph. D. (Goa University), (Novel, Linguistics, Commonwealth Literature and LanguageLaboratory).

Assistant Professor Chaubey Anjali, M.Phil (JNU).

M.A. English Programme Scheme of Instruction (Semester System) Choice Based Credit System

	COMPULSORY COURSES	No. of Credits
EGC101	Linguistics	4
EGC102	English Poetry	4
EGC103	English Novel	4
EGC104	English Drama	4
EGC105	Indian writing in English	4
EGC106	Novel as a Literary Form	4
EGC107	Literary Criticism	4
EGC108	Shakespeare: Plays	4
EGC109	American Literature	4
EGC110	World Classics	4
EGC111	Comedy	4
EGC112	Epic	4
EGC113	Tragedy	4
	OPTIONAL COURSES	
EGO101	Stylistics	4
EGO102	Study of a Major Poet	4

EGO103	Study of a Major Novelist: Joseph Conrad	4
EGO104	Study of a Major Dramatist: Harold Pinter	4
EGO105	Indian Writing in Translation	4
EGO106	Readings in Literary Criticism	4
EGO107	Creative Writing	4
EGO108	Commonwealth Literature	4
EGO109	Studies in Colonialism, Modernity and Indigenous Discourse	4
EGO110	Latin American Literature	4
EG0111	Cultural Studies in the Post Colonial World	4
EGO112	Readings in Contemporary Theory	4
EGO113	A Reading in Post-Colonial Theories and Literatures	4
EGO114	Cultural Studies: Theory and Practice	4
EGO115	GOA: Cultural Perspectives	4
EGO116	Contemporary Indian English Fiction	4
EG0117	Regional Sensibilities in Indian Writing	4
EGO118	Cross-Currents in Modern European Drama	4
EGO119	Canadian Cultural Studies	4
EGO120	Translation Studies: Theory and Praxis	4
EGO121	Approaches to Journalism from Language and Literature	4
EGO122	D. H. Lawrence as a Novelist	4
EGO123	Multimedia in Cultural Literacy's: A Study of Australia	4
EGO124	Critiquing Goan Writing in English Translation	4

Department of French	Programmes Offered	Intake	Fee (Rs.)
and Francophone Studies	M.A.	15	5630.00
Established: 1965 (CPIR)	Ph.D.		11025.00
Code: FR	Certificate/Diploma/ Advance Diploma		

The Department offers a Master's Degree in French. The programme is professionally oriented and opens up opportunities for research as well as trains students for teaching, translation and careers in the corporate sector. The Department also offers Certificate and Diploma programmes in French language at the undergraduate and postgraduate level and an Advanced Diploma in Translation.

Head of Department: Wagle, A.,

List of Faculty & Specialisation

Associate Professors Wagle, A., Ph.D (JNU, New Delhi) (Translation Studies/Linguistics/ Teaching Methodology).

Assistant Professors

Silveira I, M.A. (Goa University) (French and Francophone Literature/Culture Studies/Teaching Methodology/Functional French).

M.A. French Programme

Scheme of Instruction (Semester System) Choice Based Credit System

	COMPULSORY COURSES	No. of Credits
FRC-101	Language Skills	5
FRC-102	Theory and Practice of Translation	5
FRC-103	Textual analysis	5
FRC-104	Study of French Novel	5
FRC-105	Francophone Studies	5
FRC-106	French Culture and Civilization	5
FRC-107	General Linguistics	5
FRC-108	Phonetics, Morphology, Syntax and Semantics	5
	OPTIONAL COURSES	
FRO-101	A Study of French Romanticism	4
FRO-102	Modern French/Francophone Literature Literary Criticism	4
FRO-103	Women's Writings	4
FRO-105	Foreign Language Acquisition Studies	4
FRO-106	Research Methodology	4
FRO-107	Comparative Literature	4
FRO-108	Colonial Encounter	4
FRO-109	Literary Movements	4
FRO-110	Intellectual and Social background of one selected author's epoch	4
FRO-111	Lexicography and Technical Terminology	4
FRO-112	Multimedia for Foreign Language Acquisition	4
FRO-113	Scientific and Technical Translation	4

FRO-114	Literary translation	4
FRO-115	Consecutive Interpretation	4
FRO-116	French Language Level 1	4
FRO-117	French Language Level 2	4
FRO-118	French Language Level 3	4
FRO-119	French for Tourism and Hospitality	4
FRO-120	Scientific and Technical French	4
FRO-121	French for Business	4
FRO-122	Indian Literature in French Translation	4
FRO-123	Translation/Terminology Project OR	2
	Literature/Culture Studies Project	Z
FRO-124	Film Appreciation	2
FRO-125	History of Art	2
FRO-126	Theatre and Oral expression	2
FRO-127	Literature through Cinema	2
FRO-128	History of French Language	2
FRO-129	Creative Writing and Composition	2
FRO-130	Corrective Phonetics	2
FRO-132	Representations of French History in Visual Arts and Literature	4
FRO-DIST	Dissertation	8

Certificate and Diploma Programmes in French

- 1. Certificate of Proficiency-1 (Level A1)
- 2. Certificate of Proficiency A2 (Level A2)
- 3. Diploma of Proficiency (Level B1)
- 4. Advanced Diploma of Proficiency-(Level B2)
- 5. Advanced Diploma in Translation

Department of Hindi	Programmes Offered	Intake	Fee (Rs.)
Established: 1965(CPIR)	M.A.	40	5630.00
Code: HN	M. Phil.	10	11235.00
	Ph. D.		11025.00

The Department offers M.A., M.Phil. and Ph.D. programmes in Hindi. It lays emphasis on Indian Literature, Hindi, Marathi & Konkani, Medieval & Modern Poetry, Novels, Fiction, Criticism, Journalism & Mass Media, Translation etc. The Department also offers opportunity to conduct research in these areas.

Head of Department: Mandrekar V. S.,

List of Faculty & Specialisation:

Professors

Mishra, R. S, Ph.D. (Bombay University) (Medieval, Modern and Contemporary Poetry, Indian Poetics, Essay, Translation & Mass Media and Journalism).

Khan, I. B, Ph.D. (Aligarh University) (History of Hindi Literature, Functional Hindi & Fiction).

Mandrekar V. S, Ph.D. (Goa University) (Indian Literature, Comparative Literature and Translation).

Assistant Professor

Tiwari B. B, Ph.D. (Delhi University) (Hindi Kahani and Criticism).

Choice Based Credit System			
Semester I		No. of Credits	
Compulsory Course			
HNC 01	Linguistics	05	
HNC 02	Medieval Poetry, Practical Criticism	05	
Optional Course			
HNO 01	History of Hindi Literature: Aadikal, Bhaktikal & Ritikal	04	
HNO 02	Hindi Story	04	
HNO 03	Indian Poetics	04	
HNO 04	Folk Literature	04	
Semester II			
Compulsory Course			
HNC 03	Modern Poetry, Practical Criticism	05	
HNC 04	Hindi Novel	05	
Optional Course			
HNO 05	History of Hindi literature, Aadhunik Kal	04	
HNO 06	Functional Hindi	04	
HNO 07	Western Poetics	04	
HNO 08	Rachanatmak Lekhan	04	
Semester III			
Compulsory Course			

M.A. Hindi Programme Scheme of Instruction (Semester System) Choice Based Credit System

HNC 05	Study of Special- Author - Ajneya	05
HNC 06	Critics & Criticism	05
Optional Course		
HNO 09	Media & Journalism	04
HNO 10	Translation	04
HNO 11	Another form of Modern Prose	04
HNO 12	Indian literature	04
Semester IV		
Compulsory Course		
HNC 07	Drama & Theatre	05
HNC 08	Contemporary Hindi Poetry, Practical Criticism	05
Optional Course		
HNO 13	Literature: Thought & Philosophy	04
HNO 14	Hindi Language, Script & Grammer	04
HNO 15	Comparative Literature	04
HNO 16	Utter Aadhunik Vimarsh	04
HND		

Department of Konkani	Programmes Offered	Intake	Fee (Rs.)
Established: 1987	M.A.	50	5630.00
Code: KK	Ph.D.		11025.00

The Department of Konkani, the only one of its kind in the country, offers M.A. in Konkani language and literature and has research programmes leading to Ph.D. in any area pertaining to Konkani Language and Literature. It also has various projects from Sahitya Academi, NCERT, UGC, CIIL and other bodies taken up by individual staff members who also have expertise in several Indian and foreign languages and translation. Along with the department of Computer Science and Technology, the Department of Konkani is actively involved in interdisciplinary research pertaining to Natural Language Processing (NLP).

Head of Department: Dr. Parienkar P.

List of Faculty & Specialisation:

Associate Professor

Dr. Parienkar, P, M.A., Ph.D. (Goa University) (Konkani Folklore, Modern Konkani Poetry, Sociological Study of Literature, Special Study of Konkani Novels)

Assistant Professor Naik K., M.A (Goa University) (Feminist Literature, Indian Literature).

Visiting Faculty

Tadkodkar, P. S, M.A. (Bombay University) (Drama, Modern Konkani Prose, Literary Criticism & Research Methodology)

Adv. Bhembre U, (Old Konkani Language & Literature, Special Study of the writings of Shennoi Goembab, Konkani Media, Film Study).

Dr. Nagvenkar H, (Konkani Language Movement, Translation: Theory and Practice, Western Poetics).

CODES	COMPULSORY COURSES	NO. OF CREDITS	
KKC-101	Linguistic Study of Konkani	4	
KKC-102	Study of Old Konkani Literature(16 th -17 th Century)	4	
KKC-103	Indian Poetics	4	
KKC-104	Indian Literature	4	
KKC-105	Special Study of the Writings of Shennoi Goembab	4	
KKC-301	Modern Konkani Prose	4	
KKC-302	Issues in Language Contact and Multilingualism	4	
KKC-303	Sociological Study of Literature	4	
KKC-304	Western Poetics	4	
KKC-305	Special Study of Konkani Novels	4	
	OPTIONAL COURSES		
ККО-201	Konkani Media	2	
ККО-202	Film Study	2	
ККО-203	Konkani Language Movement	4	

M.A. Konkani Programme Scheme of Instruction (Semester System) Choice Based Credit System

ККО-204	Research Methodology	4
ККО-205	Translation: Theory and Practice	4
ККО-206	Feminist Literature	4
ККО-207	Konkani Literature from Kerala	2
ККО-401	Konkani Folklore	4
ККО-402	Functional Konkani with reference to Printing & Editing	2
ККО-403	Literary Konkani and Makers of Literary Konkani	2
ККО-404	Modern Konkani Poetry	4
ККО-405	Creative Writing	2
ККО-406	Prosody and Poetics	2
ККО-407	Konkani Tiatr	2
ККО-408	Graminn Sahitya	2
ККО-409	Critics & Criticism	4
ККО-410	Essentials of Konkani Grammar and Orthography	2

Department of Marathi	Programmes Offered	Intake	Fee (Rs.)
Established: 1970 (CPIR)	M.A.	30	5630.00
Code: MR	M.Phil	15	11235.00
	Ph.D.		11025.00

The thrust areas of the Department include Grammar and Linguistics, Theory of Literature and Translation Studies, Medieval Literature, Christian Marathi Tradition of the 17th Century in Goa, Modern Forms of Literature, Marathi Literature in Goa, Dalit, Rural & Folk Literature, so also Science Fiction in Marathi.

Head of Department: Dr. B.G. Kanolkar

List of Faculty & Specialisation

Associate Professor

Kanolkar, B. G, Ph.D. (Shivaji University) (Linguistics, Marathi Literature & Criticism, Indian Literature and Folk Literature).

Assistant Professor (S.S.)

Umraskar, S. S, Ph.D.(Goa University) (Medieval Marathi Literature & Modern Form of Literature).

Choice Based Credit System		
	COMPULSORY COURSES	No. of Credits
MRC-101	Review of Marathi Grammar	4
MRC-102	Theory of Literature (Part – I)	4
MRC-103	Linguistics and Marathi Language	4
MRC-104	A Study of Two Medieval Marathi Texts	4
MRC-105	History of Modern Marathi Literature (1818-1947)	4
MRC-106	Theory of Literature (Part – II)	4
MRC-107	Research Methodologies and Techniques	4
MRC-108	History of Modern Marathi Literature (1947-2000)	4
MRC-109	A Form of Literature (Literary Essays)	4
MRC-110	A Study of Modern Marathi Author (Prof. Laximanrao Sardessai)	4
	OPTIONAL COURSES	
MRO-101	A Study of Folk Literature	4
MRO-102	Goan Marathi Literature (Post-Liberation Period)	4
MRO-103	Translation Studies: Theory and Application	4
MRO-104	Marathi Prose & Poetry- Post-Nineteen Sixty Period	4
MRO-105	Literary Criticism: Nature and its Application	4
MRO-106	Christian Marathi Literary Tradition of the 17 th Century in Goa	4
MRO-107	Autobiographies of Women in Marathi	4
MRO-108	Sociological Study of Literature	4
MRO-109	Science Fiction in Marathi	4
MRO-110	Indian Literature in Marathi Translation	4
MRO-111	A Study of Dalit Literature	4

<u>M.A. Marathi Programme</u>

Scheme of Instruction (Semester System)

MRO-112	Creative Writings	4
MRO-113	Periodicals in Marathi 1832-1960	4
MRO-114	A Study of Sanskrit Literature	4
MRO-115	A Study of Moaddi Script and Literature	4
MRO-116	Comperative Study of Literature	4
MRD-101	Dissertation	12

Note:

- Each course paper carries four credits and it is available for the students from other discipline also. They may opt either one or two or three credits also as per their papers, as per OA-18.
- 2. MRD-101, Dissertation compulsory against any three optional papers.

Department of Portuguese and Lusophone Studies	Programmes Offered	Intake	Fee (Rs.)
Established: 1987	M.A.	15	5630.00
Code: PR	M. Phil.	05	11235.00
	Advanced Diploma	25	4000.00
	Diploma of Proficiency	25	4000.00
	Certificate of Proficiency I	25	4000.00
	Certificate of Proficiency II	25	4000.00

The Department of Portuguese and Lusophone Studies, the only one of its kind in the country, offers M.A. in Portuguese Literature and Culture, and M.Phil in Portuguese. The Department of Portuguese and Lusophone Studies has restructured its language programmes according to the Common European Framework (CEF) and offers various Certificate and Diploma Programme in Portuguese mostly job oriented in order that students may be skilled in Portuguese Language and obtain fluency up to B1.2 level of the CEF as per the needs of the IT Industry. The intake for each batch of Portuguese Language Programmes is 25 and the duration is as follow.

Certificate of Proficiency I (A1) – 100 hrs Certificate of Proficiency II (A2) – 100 hrs Diploma of Proficiency (B1) – 100 hrs Advanced Diploma of Proficiency (B2) – 100 hrs

Head of Department: Dean, Faculty of Languages & Literature

List of Faculty & Specializations:

Assistant Professor:

Fernandes, S. A, M.A. in Portuguese (Goa University) 2011. Portuguese Language & Linguistics.

Usgaonkar, D. S, M.A. in Portuguese (Goa University) 2011. Portuguese Language and Culture.

Visiting Lecturer (Camões) (under Cultural Exchange Programme)

Da Silva, Delfim C M.A. in Portuguese and French Studies (University of Aveiro) and M.Phil. in Interdisciplinary Portuguese Studies (Open University of Lisbon).

M.A. Portuguese Programme Scheme of Instruction (Semester System) All Compulsory Courses are taught in Portuguese

COMPULSORY CO	COMPULSORY COURSES	
Course	Course Title	
PRC 101	Introduction to Literary Studies	5
PRC 102	History of Portuguese Literature I	5
PRC 103	History of Portuguese Literature II	5
PRC 104	History of Portuguese Language	5
PRC 105	Introduction to Portuguese Linguistics	5
PRC 106	Introduction to Portuguese Culture	5
PRC 107	Portuguese Literature I	5
PRC 108	Portuguese Literature II	5
OPTIONAL COURSES		
PRO 101	History of Portuguese Theatre	4

PRO 102	Portuguese Cinema (in English)	4
PRO 103	Portuguese Art (in English)	2
PRO 104	Portuguese Literature of Voyages	4
PRO 105	Brazilian Literature	4
PRO 106	Indo-Portuguese Literature	4
PRO 107	African Literature in Portuguese	4
PRO 108	Multimedia and Technical Translation – Theory and Practical	4
PRO 109	Contemporary Portuguese Literature	4
PRO 110	History of Portugal (in English)	4
PRO 111	Methodology of Teaching Portuguese as Foreign Language	4
PRO 112	Portugal in the Context of the European Union	2
PRO 113	Epics in Portuguese Literature	2
PRO 119	Writing and Communication Skills	4
PRO 120	Creative Writing	4
PRO DST	Dissertation	8
PRO 116	Portuguese Language level I*	4
PRO 216	Portuguese Language level II*	4
PRO 316	Portuguese Language level III*	4
PRO 416	Portuguese Language level IV*	4

Dissertation (PRO DIST) is equivalent of two optional courses (optional).

*Portuguese Language Courses are only for students of other Departments.

Language laboratory facility is also available.

FACULTY OF SOCIAL SCIENCES

Dean: Prof. N. S. Bhat

Department of Economics	Programmes Offered	Intake	Fee (Rs.)
Established: 1968 (CPIR)	M.A .	40	5630.00
Code: EC	M.Phil.	05	11235.00
	Ph.D.		11025.00

The Department of Economics offers M. A. and Ph.D. Programme in Economics. The M.A. Programme provides a strong theoretical overview with an emphasis on quantitative techniques. Students are offered a wide range of elective courses including Econometrics, Environmental Economics, Financial Economics and Human Resource Development. In the recent years the Doctoral Programme has attracted researchers in Labour Economics, International Economics, Macro Economics and Environmental Economics. Faculty members have a track record of publishing, undertaking sponsored research projects and consultancy from national and international agencies.

Head of Department: Sudarsan, P. K.,

List of Faculty & Specialisation

Professors

Noronha, S. M, Ph.D. (Bombay University) (Labour Economics and Industrial Relations, Development Economics).

Sudarsan, P. K, Ph.D. (IIT Bombay) (International Economics and Econometrics).

Mukhopadhyay, P, Ph. D. (JNU, New Delhi) (Macro Economics, Environmental Economics).

M.A. Economics Programme Scheme of Instruction(Semester System) (Choice Based Credit System)

COMPULSORY CO	OURSES	No. of Credits
ECC101	Microeconomics – I	4
ECC201	Macroeconomics – I	4
ECC102	Microeconomics – II	4
ECC202	Macroeconomics – II	4
ECC103	Public Economics	4
ECC113	Mathematical Economics	4
ECC114	Introduction to Statistics	4
ECC104	Development Economics	4
ECC125	International Trade and Globalisation	4
ECC126	International Finance	4
OPTIONAL COUR	SES	
ECO105	International Trade and Globalisation	4
ECO106	International Finance	4
ECO107	Labour Economics	4
ECO108	Industrial Relations and Social Security	4
ECO109	Financial Economics	4
ECO110	Human Resource Development	4

ECO111	Agricultural Economics	4
ECO112	Agricultural Development in India	4
ECO116	Indian Economy	4
ECO203	Indian Public Finance	4
ECO204	Growth and Development	4
ECO209	Options: Theory & Practice	4
ECO214	Introduction to Econometrics	4
ECO314	Advanced Econometrics	4
ECO115	Environmental Economics	4
ECO301	Project Paper	4
ECO214D	Dissertation	8
ECO117	Introduction to Optimisation Techniques	2
ECO302	Qualitative Data Analysis	2
ECO118	Research Methodology	4
ECO119	Industrial Organisation and Game Theory	4

Series 100: Base level Course (No prerequisites for these courses) Series 200: Advanced course at level 2 (Pre requisites: series 100 base level course)

Series 300: Advanced course at level 2 (Pre requisites: series 200 base level course)

Department of History	Programmes Offered	Intake	Fee (Rs.)
Established: 1967 (CPIR)	M.A.	55	Fee (Rs.) 5630.00
Code: HS	M.Phil.		11235.00
	Ph.D.		11025.00

The thrust areas of the Department are Indo-Portuguese History, Maritime Studies and Indian History with special focus on the History of Goa. The Department offers a wide range of optional courses on emerging and innovative areas as well as issues of current relevance, such as Oral History, Maritime History, Trade and Urbanisation in India, Heritage Tourism, Post-Colonial Goa and Environmental History of India. The Department endeavours to make the M.A. students competent in understanding historical developments at the regional, national and international levels within an interdisciplinary analytical framework. The compulsory courses deal with the foundational aspects of historical study and include courses in Indian History, Asian History and in European and Goan History, in addition to courses on Theories of History and Historical Method.

Head of Department: Kamat P. P.,

List of Faculty & Specialisation

Professors

Kamat, P. P, Ph.D. (University of Bombay) (Indo-Portuguese History and Maritime Studies, Gender Studies, History of Goa.

Bhat, N. S, Ph.D. (Mangalore University) (History of Modern India and History of South Kanara).

Associate Professor

Rao, N, Ph.D. (Goa University) (Ancient India and Economic History of Western Coastal India).

Assistant Professors

Parobo, P. D, M.A. (Goa University) (Maritime History, Tourism, Indo-Portuguese History, Post-Colonial Studies, Intellectual History).

Risbud, S. S, Ph.D. (Goa University) (Indo-Portuguese History, Decolonisation Movements and Studies in Indian Culture and Heritage).

Choice Based Credit System		
	COMPULSORY COURSES	No. of Credits
Semester – I		
HSC-100	"Doing History": An Introduction to Historical Method	4
HSC-101	Theories of History	4
HSC-109	Aspects of Ancient Indian History (from earliest times to A. D.	4
	1200)	
Semester - II		
HSC-119	Aspects of State and Society in India (A.D. 1200 - 1700)	4
HSC-120	The Making of Modern Europe	4
Semester - III		
HSC-102	Indian National Movement (1857-1947)	4
HSC-108	India and Indian Ocean: A History	4

M.A. History programme Scheme of Instruction (Semester System) Choice Based Credit System

HSC-121	Modern Europe (1789 – 1989)	4
Semester – IV		
HSC-110	Issues and Debates in Goan History	4
HSC-122	Colonialism and Nationalism in Asia	4
	OPTIONAL COURSES	
HSO-103	Themes and Issues in Heritage Tourism	4
HSO-104	Religions in Ancient India	4
HSO-105	State and Economy in India (A.D. 300 – 1200)	4
HSO-106	Movements in Modern India: Society, Caste, Identity and Ecology	4
HSO-107	Environmental History of India	4
HSO-111	Constructing Goan Identity: Themes and Issues	4
HSO-112	The Family Laws of Goa: A Gender Audit	4
HSO-113	Economic History of Medieval India	4
HSO-114	An Introduction to Archaeology	4
HSO-115	Goan Heritage : An Introduction	4
HSO-116	An Introduction to Indian Iconography	4
HSO-117	Introduction to Museology	4
HSO-118	Oral History Interviewing	1
HSO-123	History of India (1757-1857)	4
HSO-124	Oral History	4
HSO-125	Portuguese Colonialism : A History	3
HSO-126	History of the Indian Diaspora	4
HSO-127	World History in Twentieth Century and Beyond	4
HSO-128	Imperialism and Decolonisation in Africa	4
HSO-129	Polity, Economy and Society of the Marathas	4
HSO-130	Historiography in India	4
HSO-131	Business History of India (Circa A.D. 1700 - 1991)	4
HSO-132	Trade and Urbanisation in India (A.D. 1200 - 1700)	4
HSO-133	Tribal and Peasant Movements in India (1855-1951)	4
HSO-134	Debating Post-Colonial Goa	4
HSO-135	History of India (1947 to 1984)	4
HSO-136	History of USA (1898-1945)	4
HSO-137	Modern West Asia	4
HSO-150	Indian Folk and Tribal Art Practices: The Contemporary in the	1
	Vernacular	
HSO-151	Walking In and Out of the Archive: Recording the Small Voice of	1
	History	
HSO-152	Approaching Early Indian History through Texts-I	1
HSO-153	Approaching Early Indian History through Texts-II	1
HSO-154	Fiction, Fieldwork, Performance Film History	1
HSO-155	Woman, Goddess, Power: India's Image of the Feminine	1

Department of Philosophy	Programmes Offered	Intake	Fee (Rs.)
Established: 1967 (CPIR)	M.A.	15	5630.00
Code: PS	M. Phil	05	11235.00
	Ph.D.		11025.00

M.A. Programme in Philosophy focuses on developing critical acumen in students with regard to philosophical issues and problems both in Western and Indian Philosophies. The approach adopted for this purpose is primarily analytical. The Department offers a wide range of Optional Courses, in addition to the Compulsory Courses. Generally, each course is of four credits and students have to earn 80 credits in order to qualify for the award of degree of MA in Philosophy. In addition to MA programme, the department offers M.Phil and Ph.D. programmes as well.

Head of Department: Pai Vernekar, S. D.,

List of Faculty & Specialisation

Professors **U. A. Vinay Kumar,** Ph.D. (IIT Kanpur) (Indian Metaphysics; Indian Logic; Epistemology; Existentialism)

Pai Vernekar, S. D, Ph.D. (Goa University) (Applied Ethics)

Tharakan, K, Ph.D., (University of Hyderabad) (Philosophy of Social Science, Phenomenology).

Associate Professors

Desai, M, M.A. (Goa University) (Philosophy of Science, Analytical Philosophy).

M.A. Philosophy Programme Scheme of Instruction (Semester System) Choice Based Credit System

	COMPULSORY COURSES	No. of Credits
PYC-101	History of Western Philosophy	4
PYC-102	Classical Indian Philosophy	4
PYC-203	Logic and Epistemology	4
PYC-204	Contemporary Western Philosophy	4
PYC-305	Philosophy of Mind	4
PYC-306	Aristotelian Logic	4
PYC-307	Contemporary Indian Philosophies	4
PYC-408	Meta-Ethics	4
PYC-409	Schools of Vedanta	4
PYC-410	Indian Linguistic Philosophies	4
	OPTIONAL COURSES	
PYO-101	A. J. Ayer	4
PYO-102	Philosophy of Raja Yoga	4
PYO-103	Philosophy of Religion	4
PYO-104	Sri Aurobindo	4
PYO-105	Philosophy of Social Sciences	4
PYO-106	Human Rights	4
PYO-107	Environmental Ethics	4

PYO-108	Bio-ethics	4
PYO-109	Philosophy of Science	4
PYO-110	Philosophical Paradoxes	4
PYO-111	Philosophy of Wellness	4
PYO-112	Coping with Death	4
PYO-113	J. Krishnamurti	4
PYO-115	Husserlian Phenomenology	4
PYO-201	Heideggar	4
PYO-301	Dissertation	8
PYO-302	Symbolic Logic – I	4
PYO-303	Metaphysics of World Religions-I	4
PYO-304	Symbolic Logic – II	4
PYO-401	Metaphysics of World Religions-II	4

Optional Courses (a student must choose at least 20 credits from the Department of Philosophy).

Department of Political Science	Programmes Offered	Intake	Fee (Rs.)
Established: 1973	M.A.	30	5630.00
Code: PS	M.Phil.		11235.00
	Ph.D.		11025.00

The Department of Political Science seeks to empower students with the knowledge of both the theory and practices of politics by relating it to the local, national and the global landscape over the two years Masters Programme. It seeks to constantly innovate teaching and learning methodologies to equip the students for a better future career. The Department has made significant contributions in the area of Decentralized Governance, South Asia, Democratic Politics and Goa's Politics. The teaching program and curriculum is regularly updated and reflects the core competencies of the faculty members.

Head of the Department: Tripathi, R.

List of Faculty & Specialisation

Associate Professor Tripathi, R, Ph.D. (JNU) (South Asian Politics, International Political Economy, Human Rights).

Assistant Professors Desai, P, Ph.D. (JNU) (Indian Politics, Political Theory).

Shringare, A, Ph. D. (Karnataka University) (Governance, Public Administration)

M.A. Political Science Scheme of Instruction (Semester System) Choice Based Credit System

	COMPULSORY COURSES	No. of Credits
PS101	Political Theory: Concepts and Perspectives	4
PS102	International Relations	4
PS103	Public Administration & Policy Analysis	4
PS104	Political Economy of India	4
PS105	Modern Indian Political Thought	4
PS106	Constitutional Government in India	4
PS107	Government and Politics of South Asia	4
PS108	Democratic Politics in India: Issues and Dynamics	4
	OPTIONAL COURSES	
Theory & Ski	lls Group	
PS201	Human Rights	4
PS202	Research Methods in Political Science	4
PS203	Rural Development & Research	4
PS204	Advanced Political Reporting and Analysis	4
PS205	Democracy and Federalism	4
PS206	Political Sociology	4
PS301	Dissertation	12
Governance	Group	
PS207	Development Administration and Good Governance	4
PS208	Urban Governance and Environment	4

PS209	Human Resource Development	4
PS210	State and the Marginalised	4
PS211	Political Economy of Goa	4
International Relations Group		
PS212	India's Foreign Policy	4
PS213	International Political Economy	4
PS214	Peace, Conflict and Strategic Studies	4
PS215	Maritime Security in Indian Ocean	4

Department of Sociology	Programmes Offered	Intake	Fee (Rs.)
Established: 1974 (CPIR)	M.A.	20	5630.00
Established: 1974 (CPIR) Code: SO	M.Phil.		11235.00
	Ph. D.		11025.00

The teaching programme in Sociology blends classical foundations with contemporary developments and debates. Substantively, moving beyond its disciplinary confines, the Department seeks to promote teaching and research on contemporary Goa. At the Master's level, the Department promotes fieldwork based assignments and dissertations. Towards this end, it holds a Research Methodology Training camp. Students are encouraged to participate and present papers in conferences and seminars.

Head of the Department: Somayaji, G.,

List of Faculty & Specialisation

Professor

Somayaji, G, Ph. D. (Goa University) (Social Theory, Sociology of Food, Language and Society)

Assistant Professor

Coelho, J. P, Ph. D. (Goa University) (The Indian Diaspora, Sociology of Language, Sociology of Indian Society).

M.A. Sociology Programme Scheme of Instruction (Semester System) Choice Based Credit System

CODES	COMPULSORY COURSES	NO. OF CREDITS
SOC 01	Classical Sociology	4
SOC 02	Sociology of Indian Society	4
SOC 03	Schools of Sociological Theory	4
SOC 04	Philosophy of Social Science	4
SOC 05	Current Debates in Social Theory	4
SOC 06	Political Sociology	4
SOC 07	Sociology of Religion	4
SOC 08	Globalisation and Development	4
SOC 09	Sociology of Social Stratification	4
SOC 10	Sociology of Environment	4
	OPTIONAL COURSES	
SOO 01	Producing Knowledge: Reading and writing social research	4
SOO 02	The new media: Digital Story Telling	2
SOO 03	Sociology of Work	4
SOO 04	The Indian Diaspora	4
SOO 05	Goa and International Migration	2
SOO 06	Food, Society and Culture	4
SOO 07	Language and Society	4
SOO 08	Social Movements and Revolutions	4

SOO 09	Sociology of Tribes	4
SOO 10	Goa: The Local and the Global	4
SOO 11	Ecology and Society	4
WS 01	Women's Movement in India	4
WS 02	Gender Issues in Goa	4
SOO 12	Qualitative Research	2
SOO 13	Agrarian Social Structure and Change	2
SOO 14	Nation-State and Refugees	2
SOO 15	Tourism and Modernity	2
SOO 16	Culture, Development and Tourism	2

Dissertation (SOD) equivalent to twelve credits is optional.

Centre for Latin American Studies Established: 1988 Code: LA	Programmes Offered	Intake	Fee (Rs.)
Established: 1988	M. A.	15	7000.00
Code: LA	M.Phil.		11235.00
	Ph. D.		11025.00

The Centre conducts a university-based programme devoted to the study of Latin America and the Caribbean area, combining Research, Teaching, Publishing and Public Extension activities. The academic emphasis is interdisciplinary. The Centre also conducts a Masters Programme in International Studies.

Director in Charge: Gangopadhyay, A.,

List of Faculty & Specialisation:

Professor

Gangopadhyay, A., Ph. D., M.Phil (JNU, New Delhi) (Latin American Political Economy and International Relations).

Assistant Professor

Parulekar, D., M. A (Goa University) (International Relations and International Organisations).

M.A. in International Studies: The 2 year (4 Semester) Course endeavours to acquaint students with the theoretical, thematic and topical issues and perspectives within International Affairs. The ostensible objective through this programme is to introduce the students, through an interdisciplinary perspective, to the nuances and intricacies of International Relations and develop their analytical faculties to dissect varied aspects characterizing world Affairs.

Admissions for M.A. International Studies programme at Goa University is open to any student passing B.A./B.Sc./B.Com./B.B.A. exam with 40% marks. The entrance test will be conducted consists of two papers in International Studies (of the one hour duration each) one paper of 100 marks with essay type questions and another paper of 100 marks with objective type questions. Candidates securing at least 40% marks in each of the above papers will be considered eligible for admission to the M.A. degree programme in the subject, in order of merit against the vacant seats available. The average marks from these papers will constitute 50% for the preparation of merit list. Equal weightage will be given to the B.A./B.Sc./B.Com./B.B.A. marks (50%) and the entrance test marks (50%) while preparing the merit list for entrance.

	COMPULSORY COURSES	No. of Credits
IRC 101	Theories in International Relations	4
IRC 102	International Relations: Concepts and Perspectives	4
IRC 103	International Political Economy	4
IRC 104	International Law	4
IRC 105	International Organisation	4
IRC 106	India's Foreign Policy	4
IRC 107	US Foreign Policy in Perspective	4
IRC 108	Research Methodology in International Relations	4
	OPTIONAL COURSES	
IRO 101	Understanding Geopolitics	4

M.A. International Studies Programme Scheme of Instructions (Semester System) Choice Based Credit System

IRO 102	Peace, Conflict and Strategic Studies	4
IRO 103	Latin America and the Caribbean in World Affairs	4
IRO 104	Africa in World Affairs	4
IRO 105	Government and Politics of South Asia	4
IRO 106	Russia in World Affairs	4
IRO 107	China in International Affairs	4
IRO 108	Society, Politics and Foreign Policy of Brazil	4
IRO 109	Australia and the 'Indo-Pacific' in World Affairs	4
IRO 110	Contemporary Issues in International Relations	4
IRO 111	Survey of Latin American History	4
IRO 112	Government and Politics in Latin America	4
IRO 113	Political Economy of Latin America	4
IRO 114	Sociology of Latin America	4
IRO 115	Middle East in International Affairs	4
IRD 120	Dissertation	12

Library and Information Science	Programmes Offered	Intake	Fee (Rs.)
Established: 2013	B. L.I.Sc.	25	20840.00
Established: 2013 Code: BL Code: ML	M. L.I.Sc.	20	24300.00

The Library and Information Science Department conducts two Programmes leading to (a) Bachelor's Degree (B. L. I. Sc.) consisting of two semesters and (b) Master's Degree (M. L. I. Sc.) consisting of two semesters. Both programmes will carry 40 credits each. The duration of the Programme is one year for (a) B. L. I. Sc. and one year for (b) M. L. I. Sc.

Coordinator: Gopakumar, V.,

Bachelor of Library & Information Science (B.L.I.Sc.) Programme Scheme of Instruction (Semester System)

Semester I		No. of Credits
BLC 101	Library Information and Society	3
BLC 102	Reference and Information Sources	3
BLC 103	Information Processing and Retrieval I	3
BLC 104	Information Processing and Retrieval II	2
BLC 105	Management of Library and Information Centres	5
BLC 106	Information Services and Systems	4
Semester II		
BLC 201	Fundamentals of Information Technology (Theory)	5
BLC 202	Information Processing and Retrieval III – Cataloguing	4
BLC 203	Information Processing and Retrieval IV – Cataloguing	1
BLC 204	Information Technology (Practical)	2
BLC 205	Digital Content Development and e-publishing	4
BLC 206	Digital Information Management	4

Master of Library & Information Science(M.L.I.Sc.) Programme Scheme of Instruction (Semester System)

Semester I		No. of Credits
MLC 101	Information Retrieval	3
MLC 102	Library Automation and Networks	3
MLC 103	Library Automation Software (Practical)	2
MLC 104	Research Methodology	3
Optional		
MLO 105	Web 2.0	3
	OR	
MLO 106	Electronic Information Sources and Services	3
Semester II		
MLC 201	Digital Libraries (Theory)	4
MLC 202	Digital Libraries (Practical)	3
MLC 203	Webometrics, Informetrics & Scientometrics	2
MLC 204	Marketing of Information products and services	2
Optional		
MLO 205	Information Literacy	3
	OR	
MLO 206	Scholarly communication	3
MLC 207	Dissertation is a compulsory component of MLISC Programme and shall carry 12 Credits.	12

Department of Women's Studies	Programmes offered	Intake	Fee (Rs)
Established: 2015	M.A.	15	5630.00
Code: WS	Ph.D.		11025.00

In Charge: Desouza Shaila

List of Faculty and Specialization:

Assistant Professor

Desouza Shaila, Ph.D (TISS, Mumbai), Gender: Development, Health, Welfare, Empowerment.

Women's Studies in India, is an interdisciplinary field of scholarship. The MA Women's Studies Programme is designed to facilitate critical thinking and develop new knowledge. The programme helps students understand the creation and perpetuation of inequalities with the intention to develop in students the capacity and skills to bring about change, create new areas of service and to ultimately impact policy and the discourse on women's development in the country. The programme also aims at creating research capacities for students to engage with the academic discipline of Women's Studies.

The syllabus is designed to enable students to bridge the gap between theory and practice. Therefore field work is an integral part the M.A syllabus and students are placed for a minimum of 10 days in organizations (government or voluntary) which are working for the betterment of women and society. This gives students a better insight into social realities. Intra semester assessments (ISAs) are also designed in such a way that students can interact with the society and can collect data from the real world for their academic advancement.

Apart from this the department organizes workshops, with the help of subject experts to initiate a two way learning process. Field trips are also a part of the curriculum.

Prerequisites: A Bachelor's Degree in any subject.

There will be an entrance test/change of faculty test. The date and time of the test will be posted on the Goa University website. The test will be a 100 mark paper with objective type questions based on general knowledge about women's issues. There will be an equal weightage given to the entrance test and TY examination marks for the preparation of merit list. **The two year M.A. Programme in the subject of Women's Studies is governed by OA-18 Ordinance.**

COURSE CODE	COMPULSORY COURSES	CREDITS
WSC - 101	Core Concepts in Women's Studies	4
WSC – 102	Contemporary Feminist Thought	4
WSC – 103	Mapping the Indian Women's Movement	4
WSC – 104	Gender Issues in Goa	4
WSC – 105	Doing Feminist Research	4
WSC – 106	Field work Skills and Practice	4
WSC – 107	Gender-sensitive Interventions for Change	4
WSC – 108	Gender, Development and the State	4

M.A. Women's Studies programme

WSC - 109	Gender and Marginality	4
WSC - 110	Gender, Human Rights and Law	4
COURSE CODE	OPTIONAL COURSES	CREDITS
WSO - 101	Critical Debates on Women's Health	4
WSO – 102	Gender and Culture	4
WSO - 103	Re-reading History: Feminist Perspectives	4
WSO - 104	Women's Welfare and Empowerment	4
WSCO- 105	Gender and Political Processes	4
WSO – 106	Gender and Media	4
WSO – 107	Demography, Labour, Work and Gender	4
WSO - 108	Gender, Environment and Ecology	4
WSO- 109	Gender and Education	4
WSO - 110	Women and Violence	4
WSD - 101	Dissertation	8

Centre for the Study of Social Exclusion and Inclusive Policy Established: 2008 Code: CSSEIP

Founded in 2008 through an initiative of the University Grants Commission, Government of India, the Centre for the Study of Social Exclusion and Inclusive Policy (CSSEIP) promotes interdisciplinary research on the varied forms of social marginality and dynamics of exclusion, caste and differently-abled with an active commitment to furthering democratic practices. The centre builds ties with civil society organisations for strengthening critical public discourses around social exclusion in the society. The centre organises seminars, symposia and workshops on the related themes and builds a database and documentation on the issues, activities and events related to marginality.

Programme Coordinator: Prof. N.S. Bhat

List of Faculty & Specialisation:

Assistant Professor

Gawas V. M., B. Com. L.L.M. (Goa University), (Constitutional and Legal Law, Human Rights, Tribal Studies)

FACULTY OF NATURAL SCIENCES

Dean: Prof. Gourish M. Naik

Department of Chemistry	Programmes Offered	Intake	Fee (Rs.)
Established: 1966 (CPIR)	M. Sc.	80	11235.00
Code: CH	M. Phil.		12680.00
	Ph. D.		11025.00

DST-FIST/UGC-SAP SPONSORED DEPARTMENT

The Department offers two year M.Sc. (80 credits) program in Organic, Physical, Inorganic, and Analytical Chemistry. The departmental research work leading to Ph.D. degree in the above subjects encompasses various domains of chemical research with emphasis on synthesis of natural products, developments of reagants for organic synthesis, synthesis and application of polymers and nanocomposites, synthesis of pure and mixed metal oxide nanoparticles and their applications. The research extends further into computational and theoretical chemistry, synthesis of coordination complexes as models for biological systems, development of catalysts/ electrocatalysts and their use in kinetics evaluation for various fundamental processes related to energy and environment.

Head of Department: Srinivasan B. R.,

List of Faculty and Specialisation

Professors

Salker, A. V, Ph. D. (I.I.T. Bombay) (Catalysis, Solid State Chemistry, Environmental Chemistry, Chemical Sensors)

Kamat, V. P, Ph.D. (Bombay University) (Organic Synthesis, Synthetic and Transformation Studies of Natural Products and Pesticide Chemistry)

Tilve, S. G, Ph.D. (University of Pune) (Synthetic Organic Chemistry)

Srinivasan, B. R, Ph.D. (I.I.T. Kanpur) (Synthetic Inorganic Chemistry)

Nadkarni, V. S, Ph.D. (Bombay University) (Synthetic Organic Chemistry and Polymer Chemistry)

Associate Professors

Shirsat, R. N, Ph.D. (University of Pune) (Theoretical and Computational Chemistry) **Verenkar, V. M. S,** Ph.D. (Goa University) (Solid State Chemistry and Gas Sensors)

Assistant Professors

Dhuri, S. N, Ph.D. (Goa University) (Coordination and Bioinorganic Chemistry)
Girkar, S. V, M.Sc. (Goa University)(Organic Chemistry)
Morajkar P. P, Ph.D. (University of Lille 1- Science and Technology France) (Reaction Kinetics, Kinetic Modelling, Laser diagnostics)
Deshpande K.B, Ph.D. (BITS Pilani) (Biosensors, Environmental monitoring & remediation)

Majik M.S, Ph.D., (Goa University) (Development of Analytical method for Biomedical applications, Separation techniques/ Characterization)

Instrumental Facilities : NMR (400 MHz), Atomic Force Microscope, Vibrating Sample Magnetometer, Automated Gas Sorption Analyzer, Thermal Analyzer, Electrochemical Analyzer, Gel permeation chromatograph, Spectrometers (IR, Raman, UV-Vis), CHNS Analyzer, HPLC, Flash chromatograph, Gas Chromatograph, Ball Mill, Automatic Polarimeter, LCQR meter etc.

M.Sc. Chemistry programme Scheme of Instructions (Semester System) Choice Based Credit System

COURSES (CHA-Analytical Chemistry, CHI-Inorganic Chemistry, CHO-Organic Chemistry, CHP-Physical Chemistry, C- compulsory, O-optional, C-credit)

Semester I & II (Co	mpulsory Courses	No. of Credits
CHIC-401	General Inorganic Chemistry	4
CHOC-401	Concepts in Organic Chemistry-I	4
CHPC-401	General Physical Chemistry	4
CHAC-401	Spectroscopic Methods in Chemistry	4
CHIC-402	Laboratory Course in Inorganic Chemistry	2
CHOC-402	Laboratory Course in Organic Chemistry	2
CHPC-402	Laboratory Course in Physical Chemistry	2
CHAC-402	Laboratory Course in Analytical Chemistry	2
Semester I & II (Op	tional Courses)	
CHIO-401	Selected Topics in Inorganic Chemistry	2
CHIO-402	Environmental Chemistry	2
CHOO-401	Concepts in Organic Chemistry -II	2
CHOO-402	Concepts in Organic Chemistry –III	2
CHPO-401	Selected Topics in Physical Chemistry	2
CHPO-402	Mathematical preparation for Chemistry &	2
	Introduction to Computers	
CHAO-401	Analytical Techniques –I	2
CHAO-402	Analytical Techniques –II	2
CHPO-403	Diffraction Methods	2
Semester III & IV (Compulsory Courses)	
ANALYTICAL CHEM	IISTRY	
CHAC-501	Fundamentals of Chemical Analysis	4
CHAC-502	Techniques in Chemical Analysis	4
CHAC-503	Separation Techniques	4
CHAC-504	Experiments in Analytical Chemistry	4
INORGANIC CHEM	ISTRY	
CHIC-501	Co-ordination and Organometallic Chemistry	4
CHIC-502	Solid State Chemistry	4
CHIC-503	Group Theory and Spectroscopy	4
CHIC-504	Experiments in Inorganic Chemistry – I	4
ORGANIC CHEMIST	FRY	
CHOC-501	Organic Spectroscopy, Peri cyclic Reactions and	4
	Photochemistry	
CHOC-502	Reaction Mechanisms and Stereochemistry	4
CHOC-503	Synthetic Methods in Organic Chemistry	4
CHOC-504	Selected experiments in Organic Chemistry	4
PHYSICAL CHEMIST	FRY	
CHPC-501	Quantum Chemistry and Spectroscopy	4
CHPC-502	Advanced Thermodynamics & Kinetics	4

CHPC-503	Electrochemistry	4
CHPC-504	Experiments in Physical Chemistry-1	4
Semester III & IV (C	Optional Courses)	
ANALYTICAL CHEM	IISTRY	
CHAO-501	Spectral Methods of Analysis	4
CHAO-502	Environmental Control and Chemical Analysis	2
CHAO-503	Applied Analytical Chemistry	2
CHAO-504	Chemometrics	2
CHAO-505	Problems on Combined Spectroscopy	2
CHAO-506	Selected Topic in Analytical Chemistry	2
CHAO-507	Calibrations and Validation	2
CHAO-508	Advanced Mass Spectroscopy	2
CHAO-509	Advanced NMR Spectroscopy	2
INORGANIC CHEMI	ISTRY	
CHIO-501	Bioinorganic Chemistry	4
CHIO-502	Catalysis: Fundamentals and Chemical concepts	4
CHIO-503	Chemistry of Main Group Elements	4
CHIO-504	Topics in Inorganic Chemistry	4
CHIO-505	Laboratory Course in Inorganic Chemistry – I	4
CHIO-506	Laboratory Course in Inorganic Chemistry – II	4
ORGANIC CHEMIST	RY	
CHOO-501	Chemistry of Natural Products	4
CHOO-502	Chemistry of Natural and Synthetic Polymers	4
CHOO-503	Heterocyclic and Organometallic Chemistry	4
CHOO-504	Introduction to Medicinal Chemistry	4
CHOO-505	Pesticides, Environmental Pollution and Newer	4
	Methods of Pest Control	
CHOO-506	Green Chemistry : Introductory Course	4
CHOO-507	Laboratory Course in Organic Synthesis	4
CHOO-508	Innovative experiments in Organic Chemistry	4
CHOO-509	Laboratory Course in Synthetic Organic Chemistry	8
CHOO-510	Laboratory Course in Medicinal Chemistry	2
CHOO-511	Green Chemistry Techniques in Organic Synthesis	3
CHOO-512	Laboratory Course in Green Chemistry Techniques in	2
	Organic Synththesis	
PHYSICAL CHEMIST	TRY	
CHPO-501	Colloids and Surface Science	4
CHPO-502	Solid State Chemistry : Concepts & Applications	4
CHPO-503	Advances in Catalysis	4
CHPO-504	Nanoscience: Concepts and Applications	4
CHPO-505	Laboratory Course in Applied Chemistry	4
CHPO-506	Laboratory Course in Physical Chemistry - I	8
CHPO-507	Computational Chemistry	2
CHPO-508	Radiation Chemistry	2
CHPO-509	Applied Electrochemistry	2

CHPO-510	Biophysical Chemistry	2
CHPO-511	Chemical Kinetics and Modelling	2
CHPO-512	Experimental Chemical Kinetics	2
GENERAL OPTIONAL	COURSES (III & IV)	
Semester III or IV		
CHGO-500	Dissertation	8
CHGO-502	Biological Chemistry	4
CHGO-502	Green Chemical Processes	2
CHGO-503	Chromatographic Methods	2
CHGO-504	Conventional and Non-conventional Energy	2

Dissertation, if opted for, is equivalent to two optional laboratory courses.

For 2017-18 the distribution of seats in M. Sc. Part-I in various categories shall be as under-

Sr. No.	Category	Analytical Chemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Total
1	General	10	11	10	11	42
2	SC	1	0	0	1	02
3	ST	2	3	3	2	10
4	OBC	6	5	6	5	22
5	Differently abled/Defense	0	1	1	0	02
6	Other Indian University	1	0	0	1	02
7	Total	20	20	20	20	80

To maintain the equality of seats in the four branches the reservations under all the six categories shall be rotated every year.

Department of Computer Science & Technology	Programmes Offered	Intake	Fees (Rs.)
Established: 1987	M.C.A.	60	16320.00
Code: CST	Course Development fees for M.C.A.		18400.00
	M.Phil.		12680.00
	Ph.D.		11025.00

The Department offers a full time 3-year degree programme leading to the "Master of Computer Applications (MCA)" degree and it also offers a 1-year degree programme leading to the "Master of Philosophy (M.Phil)" in Computer Science and the doctoral programme leading to Ph.D. in Computer Science. The thrust areas of the department include Computer Graphics & CAD, Data Mining, Software Engineering, Databases, Computer Networks and Embedded Systems, Information Systems Security, Educational Technology and Natural Language Processing (NLP). The alumni of the department are extremely well placed and currently hold leading positions in reputed IT organisations in the country and abroad. The Department is very popular amongst aspiring student fraternity due to the competent faculty members and the Department's consistent efforts in achieving 100% placements every year since its inception.

Head of Department: Kamat, V. V.

List of Faculty & Specialisation:

Professor

Kamat, V. V, Ph.D. (Goa University) (Computer Graphics & CAD, Software Engineering, E-learning).

Associate Professors

Pawar, J. D, Ph. D. (Goa University) (Data Mining, Data Structures, Natural Language Processing).

- Pinto, Y. F, M.C.A. (Goa University) (Database Management System, Operating Systems, Computer Science Education).
- Baskar, S, M.Sc. (Computer Science) (Bharathidasan University, Tiruchirapalli) (Machine Learning, Compilers, Embedded Systems and Cloud Computing).

Wagh, R, M.C.A. (Goa University) (Software Engineering, GIS).

Assistant Professors

Karmali, R, M.C.A., Ph.D (Goa University) (Natural Language Processing, Data Communication, Security)

Payaswini P, M.Sc.,(Computer Science) (Mangalore University, Mangalore) Computer Networking, Data Structures.

Laboratory Facilities: The Laboratory facilities in the Department are constantly upgraded to cater to the growing needs of students. Currently around 130 core i3 desktops are spread over the Department area – the laboratory as well as faculty offices. About one hundred and twenty students can simultaneously work on MS Windows / Linux platforms. Presently, the laboratory supports all computer languages, Integrated Development Environments and software tools available on Open Source Linux Platform. In addition the laboratory also provides students and faculty with the latest versions of development tools and application platforms such as Oracle, Eclipse, Visual Studio, CASE Tools, Rational Suite, Internet Information Server (IIS), MATLAB etc. The Department subscribes to the Microsoft Dream Spark programme which provides legal copies of all Microsoft software available on workstation and Server platforms. The laboratories also provide Broadband Internet connectivity through wired and Wi-Fi networks.

Master of Computer Applications (M.C.A) Programme
Scheme of Instruction: Semester System (Six Semesters)
Choice Based Credit System

	Semester I	No. of Credits
CS 101	Programming and Problem Solving	4
CS 102	Computer Organisation and Architecture	4
MT 103A	Applied Linear Algebra	4
MT 104	Discrete Mathematical Structures	4
PL 105	Programming and Problem Solving Lab	4
PL 106	UNIX Environment and Tools Lab	4
	Semester II	
CS 201	Data and File Structures	4
CS 202	Operating Systems	4
MT 203	Applied Operations Research	4
MT 204	Probability & Statistics	4
PL 205	Data and File Structures Lab	4
PL 206	Operating Systems Lab	4
	Semester III	
CS 301	Data Base Management Systems	4
CS 302	Computer Communications Networks	4
CS 303	Design and Analysis of Algorithms	4
CS 304	Object Oriented Technology	4
PL 305	Data Base Management Lab	4
PL 306	Object Oriented Programming Lab	4
	Semester IV	
CS 401	Software Engineering	4
CS 402	Web Technology	4
EL-I	Elective Paper	4
EL-II	Elective Paper	4
PL 405	Software Engineering Lab	4
PL 406	Web Technology Lab	4
	Semester V	
CS 501	Machine Learning	4
CS 502	Network Security	4
EL-III	Elective Paper	4
EL-IV	Elective Paper	4
PL 505	Machine Learning Lab	4
PL 506	Network Security Lab	4
	Semester VI	
	Software Project Development / Industrial Training	

Department of Earth Science	Programmes Offered	Intake	Fee (Rs.)
Established: 1986	M.Sc.	30	11235.00
Code: GL	M.Phil.		12680.00
	Ph.D.		11025.00

The Department of Earth Science, established in 1986, offers academic programme leading to M.Sc. (Applied Geology) and Doctoral degrees. The department annually admits 20 students in its M.Sc. Programme and has capacity to admit 8 students for its Doctoral programme. Apart from teaching commitments, faculty members undertake several sponsored research programmes, consultative assignments and short term programmes under the Continuing Classroom-cum-Distance Learning Programmes of the University. Department is also funded under DST (FIST) and UGC (SAP) at -DRS-III level programmes.

All the core and elective, optional courses included in the programmes have been specifically designed to meet industry standards and research requirements. The close links that the department enjoys with the industry (particularly Mining & Mineral) and research organisations, have worked towards elevating the level and quality of studies and facilities. The department also works towards reaching the general public under outreach programmes for creating awareness in conservation and management of natural resources. The Department has been actively involved in several international programmes (UNIGIS Distance Learning in GIS, International Earth Science Olympiad, etc.)

Head of Department: K. Mahender,

List of Faculty & Specialisation:

Professors

K. Mahender, Ph.D. (I.I.T., Bombay) (Sedimentology, Petroleum Geology, GIS and Remote Sensing).

Chachadi, A. G., Ph.D. (I.I.T., Roorkee) (Groundwater and Environmental Geology, Exploration Geophysics).

Associate Professors

Viegas A. A. A, Ph.D. (Goa University) (Igneous Petrology, Mining Geology)

Master of Science in Applied Geology

Program Code: GL

The Masters programme involves advanced training in subjects and builds upon the foundation laid at the Bachelor's level. The focus is on building a strong theoretical and practical framework to enable students to tackle routine work in the industry as well as to take initiative in challenging new areas. Accordingly the Masters programme includes fundamental courses such as Mineralogy, Geochemistry, Structural Geology, Sedimentology, Igneous Petrology, Metamorphic Petrology, Economic Geology, Stratigraphy and Indian Geology, as well as courses related to practical aspects such as Remote Sensing, GIS, Petroleum Geology, Mining Geology, Groundwater Geology, Exploration Geophysics, Statistical Geology, etc. The coursework is aided by introduction to computer applications in various fields. Some of the computer tools that the students are introduced to during the period of their coursework include Surfer, Strater, Rockware, Surpac, ArcGIS, IDIRSI, SteroNett, ERDAS, etc. apart from other software not explicitly related to the core subjects.

As a supplement to the various theoretical courses, the Department also provides the students with an opportunity to work in the field. There are two educational field programmes in the 2^{nd} and 4^{th} semesters respectively, apart from the practical industry training in mining or petroleum related industries at the end of the 2^{nd} semester.

The majority of the students over the years have been placed in mining and oil companies through regular counseling and campus placements.

M.Sc. in Applied Geology Scheme of Instruction: Semester System (Choice Based Credit System)

COMPULSO	RY COURSES	No. of Credits
GL 101	Principles of Mineralogy and Geochemistry	4
GL 102	Structural Geology and Geotectonics	4
GL 103	Igneous Petrology	4
GL 104	Metamorphic Petrology	4
GL 105	Sedimentology	4
GL 106	Palaeontology	4
GL 107	Economic Geology	4
GL 108	Principles of Statigraphy and Indian Geology	4
GL 121	Geological Field Mapping	2
GL 122	Geological Field Training	2
GL 123	Industrial Training	4
OPTIONAL O	COURSES	
GL 201	Groundwater Geology	4
GL 202	Petroleum Geology	4
GL 203	Exploration Geophysics	4
GL 204	Micropalaeontology	4
GL 205	Environmental Geology	4
GL 206	Remote Sensing	4
GL 207	Marine Geology	4
GL 208	Geographical Information Science	4
GL 209	Mining Geology	4
GL 210	Coal Geology	4
GL 211	Soil Science	4
GL 212	Microtectonics	4
GL 213	Planetary Geology	2
GL 214	Sedimentory Basin Analysis	4
GL 215	Natural Resources & Environmental Management	4
GL 216	Engineering Geology	4
GL 217	Sedimentary Facies and Environments	4
GL 218	Statistical Geology	3
GL 219	Industrial Mineralogy	3
GL 220	Pre Cambrian Crustal Evolution	2
GL 221	Mineral Economics	2
GL 222	Climate Geology	2
GL 223	Trace Element Geochemistry	2
GL 224	GPR Applications	2
GL 225	Digital Image Processing	2
GL 226	Glaciology	2
GL 227	Data Mining	2
GL 228	Term Paper	2
GL 229	Minor Project	2

GL 230	Hydrogeological Problems and Management	4
GL 231	Well Site Geology	2
GL 232	Petrophysics	3
GL 233	Well logging	3
GL 234	Geoheritage	2
GL 235	Palaeo-Palynology	3
GL 236	Advanced Structural Analysis	4
GL 237	Geodesy Surveying, GPS	3
GL 238	Petroliferous Basins of India	4
GL 239	Geomorphology	4
GL 240	Basic of RS, GIS and GNSS	4
GL 251	Internship In Geoscience	3
GL 252	Geoscience Software	2
GL 253	Geoscience and Society	2
GL 254	Seminar Participation	1
GL 255	Physical Training / Sports Participation	1
GL 301	Dissertation (Compulsory)*	12

Department of Electronics	Programmes Offered	Intake	Fee (Rs.)
Established: 2010	M. Sc.	15	14720.00
Code: EL	Ph. D.		11025.00

The Department offers both M.Sc. & Ph.D degree in Electronics. The thrust area of the M.Sc. program is Embedded system as supported by the UGC under innovative program and Biomedical Instrumentation. Bachelor students with 55% marks are eligible for department entrance test for admission to M.Sc Electronics Program. Summer Internship as well as industry associated mini & major projects are highlights of this program. The Department has ongoing projects in the areas of Biomedical, Agricultural Electronics, Biometrics & Hyper Spectral Imaging and Communications System.

Head of Department: Naik, G. M.

List of Faculty & Specialisation

Professor

Naik, G. M, Ph. D. (I.I.Sc., Bangalore) (Opto-Electronics)

Associate Professor

Gad, R. S, Ph.D. (Goa University) (Data Fusion and Communication System).

Assistant Professor

Parab, J. S., Ph.D. (Goa University) (Embedded System Instrumentation and Signal Processing)

Major Facilities:

- * UV/Visible/NIR Spectrophotometer, UV-VIS-NIR Fiber-optic spectrometer.
- * Spectrum analyzer, portable Signal Generator and Analyzer upto 3 GHz range, Electromagnetic Test Bench and MIMO system.
- * Isolation table, Hyper-spectral Imaging Camera setup, various lasers and light sources.
- * 20-Channel EEG, ECG and EMG Biomedical system.
- * ALTERA Semiconductors technology developments boards for DSP, Image processing, transreceiver, Ethernet; Controllers developments boards for PIC,89C52 ,ARM7/9, NI Speedy; Xilinx IDE ISE 7.1, MATLAB, LabView, TRI India Robotics development kits, VLSI, CAD tools, like P-Spice, Microwind;.

M.Sc. Electronics Programme Scheme of Instruction: Semester System (Choice Based Credit System)

Semester I	COURSES	No. of Credits
ELC 101	Microelectronics and VLSI Design	4
ELC 102	Numerical Computation and Algorithms	4
ELC 103	EDA Tools-I	4
ELC 104	Electronics Practicals – I	4
UEL 101	Advanced Digital Communication System	4
	Total	20
Semester – II		
ELC 201	Embedded System Design	4

ELC 105	Operating System and RTOS		4
ELC 202 Optical Communication System			4
ELC 203	Electronics Practicals - II		4
UEL 102	Microprocessor Architecture and Programming		4
		Total	20
Semester – III			
ELC 204	Instrumentation & Control Theory		4
ELC 301	Electronics Practical - III		4
ELD 201	Signals and Systems		4
ELD 202	Digital Signal Processing		4
ELD 301	Digital System Design using HDL		4
ELD 302	EDA Tools-II		4
UEL 103	Industrial Training, Mini Project and Seminar		4
		Total	20
Semester – IV			
ELD 401	Electronics Practicals - IV		4
ELD 203	Nano Electronics and Nano systems		4
ELD 303	Laser System Engineering		4
ELD 404	Project		8
UEL 104	Pharmaceuticals Instrumentation		4
UEL 105	Communication and Technical skills		4
		Total	20

Department of Mathematics	Programmes Offered	Intake	Fee (Rs.)
Established: 1965 (CPIR)	M. Sc.	30	5630.00
Code: MA	M. Phil.	5	12680.00
	Ph. D.		11025.00

The Department offers post-graduate programme in Mathematics and is oriented towards research in Topology, Knot Theory, Differential Equations, Operator Theory, Mathematical Physics, Lie Algebra Functional Analysis, Number Theory and Combinatories.

Head of Department: Valaulikar, Y. S.,

List of Faculty & Specialisation:

Associate Professors

Jayanthan, A. J, Ph. D. (University of Hyderabad) (Topology, Knot Theory) Valaulikar, Y. S, Ph. D. (Goa University) (Ordinary and Delay Differential Equations) Mohapatra, A. N, Ph. D. (Sambalpur University) (Operator Theory & Mathematical Physics).

Assistant Professors

Tamba, M, Ph. D. (Madras University) (Lie Algebras, Number Theory). **Kunhanandan M,** Ph.D. (Goa University) (Functional Analysis, Combinatorics)

M.Sc. Mathematics Programme Scheme of Instruction (Semester System) (Choice based Credit System)

(Choice based credit system)				
	Semester I	No of Credits		
MATH 101	Real Analysis	4	Core Course	
MATH 119	Basic Algebra	4	Core Course	
MATH 103	Linear Algebra	4	Core Course	
MATH 201	Differential Equations	4	Core Course	
MATH 108	Methods of Applied Mathematics	4	Optional Course	
	Semester II			
MATH 211	Algebra	4	Core Course	
MATH 104	Topology	4	Core Course	
MATH 105	Several Variable Calculus	4	Core Course	
MATH 302	Measure Theory	4	Optional Course	
MATH 106	Complex Analysis	4	Core Course	
	Semester III			
MATH 202	Functional Analysis	4	Core Course	
MATH 305	Partial Differential Equations	4	Optional Course	
	Optional Course	4		
	Optional Course	4		

	Semester IV		
	Optional Course	4	
	Optional Course	4	
	Optional Course	4	
	Dissertation / Optional Course	4	
	Optional Courses		
MATH 107	Number Theory	4	
MATH 109	Number Theory II	4	
MATH 110	Theory of Computation	4	
MATH 111	Matrix Groups	4	
MATH 112	Difference Equations	4	
MATH 113	Mathematics for Finance	4	
MATH 114	Actuarial Science	4	
MATH 115	Numerical Analysis	4	
MATH 118	Combinatorics	4	
MATH 120	Research Methodology	4	
MATH 203	Differential Geometry	4	
MATH 204	Lie Algebra	4	
MATH 205	Representations of Finite Groups	4	
MATH 206	Commutative Algebra	4	
MATH 208	Integral Equations	4	
MATH 209	Knot Theory	4	
MATH 210	Algebraic Topology	4	
MATH 301	Topology II	4	
MATH 303	Differential Topology	4	
MATH 304	Sturm-Liouville Problems	4	
MATH 401	Introduction to Lie Groups	4	
MATH 402	Mathematical Modelling	4	
MATH 403	Dynamical Systems	4	
MATH 404	Operator Theory	4	
MATH 405	Functional Equations	4	
MATH 406	Wavelets	4	
MATH 001	Statistics	4	
MATH 500	Dissertation	8	

It is desirable that all the students joining the Department of Mathematics have a Laptop Computer.

Department of Physics (1973)	Programmes Offered	Intake	Fee (Rs.)
Established: 1963 (CPIR)	M.Sc.	40	11235.00
Code: PH	M. Phil.	10	12680.00
	Ph. D.		11025.00

DST-FIST/UGC-SAP SPONSORED DEPARTMENT

Established in 1973, having its origins in the erstwhile Centre for Postgraduate Instruction and Research under University of Mumbai, the Department offers two year M. Sc., one year M. Phil. and Ph. D programmes in Physics. The thrust area of research is experimental and theoretical condensed matter physics. Department faculty are actively involved in understanding structural, magnetic and transport properties of different types of materials ranging from glasses, nanomagnetic materials, luminescent materials, magnetic shape-memory alloys, superconductors, electrocatalysts, etc. as well as in understanding quantum phase transitions in Bosonic systems. The Department has several strong national and international collaborations which enable research students to carry out their work using state of the art facilities in the country as well as abroad. The research output of the Department can be viewed from several publications in peer reviewed journals of high repute and presentations in noteworthy national/international conferences. The Department is supported under DST-FIST (Level-I, Phase II), UGC-SAP (Phase III) and Infrastructure programmes. The faculty members also have several ongoing research projects funded by different national agencies. The Department has well equipped teaching laboratories in the courses offered. It is also one of the centres recognized by Indian Academy of Sciences, Bangalore for conducting the Experimental Physics Refresher Courses on behalf of the Joint Science Education Panel of the three national science academies.

Head of Department: Pai R.V.

List of Faculty & Specialization

Professors

Tangsali, R. B., Ph.D. (University of Mumbai, Mumbai) (Solid State Physics, Nanomaterials).
Pai, R. V., Ph.D. (Institute of Physics, Bhuvaneshwar) (Theoretical Condensed Matter Physics).
Priolkar, K. R., Ph.D. (Goa University, Goa) (Experimental Solid State Physics-NEXAFS and EXAFS).

Associate Professor

Subramanian, U., Ph.D. (IIT Kharagpur) (Experimental Solid State Physics). UGC-Research Faculty

Assistant Professors

Pahari B. Ph. D (Jadavpur University, Kolkata) (Condensed Matter Physics, NMR Spectroscopy).
Cherukulappurath S. Ph. D. (University of Angers, France) (Nonlinear Optics, Plasmonics, Nanophotonics)
Hyam R. S. Ph.D. (Shivaji University, Kolhapur) (Experimental Condensed Matter, Nanomaterial for Energy applications)

Major facilities:

Programmable High Temperature Furnaces, Tri Arc Furnace, Pulse laser deposition system, Sieve Shaker, Diamond Cutter, Lapping and Polishing Machine, Rotating anode based X-ray diffractometer, Optical Microscopes, FTIR & UV-Vis Spectroflurometers, Electrical Resistivity, AC susceptibility, Thermopower apparatus (ambient to 10K), Dielectric Bridge, Differential Scanning Calorimeter (-140°C to 600°C), Thermogravimetricanalyser (ambient - 1100°C), Pulsed-field Loop Tracer, Luminescence spectrometers, Dynamical Mechanical Analyser(-140°C to 600°C), Computer Cluster.

Scheme of Instruction (Semester System) Choice based Credit System

SEMESTER-I		No. Of Credits
PHC – 100*	BRIDGE COURSE ON MATHEMATICAL METHODS	2
PHC -101	Mathematical Physics	5
PHC -102	Classical Mechanics	5
PHC -103	Electromagnetic Theory	5
PHC -104	Electronics Practical	3
PHC -110	Computer Programming in FORTRAN 95	2
	SEMESTER -II	
PHC- 106	Quantum Mechanics-I	5
PHC -107	Basic Electronics	5
PHC -108	Statistical Mechanics	5
PHC -109	General Physics Practical	5
	Summer Fellowships	Extra 1
	SEMESTER -III	
PHC -201	Quantum Mechanics-II	5
PHC -202	Nuclear and Elementary Particle Physics	4
PHC -203	Solid State Physics	5
PHC -204	Solid State Physics Practicals	4
PHC -205	Seminars	2
	SEMESTER -IV	
PHO -302	Neutron Physics	4
PHO -303	Superconductivity and Superfluidity	4
PHO -304	X-ray Spectroscopy	4
PHO -305	Electronics Practicals -II	4
PHO -306	Semiconductor Physics	4
PHO -307	Projects	8
PHO -308	Acoustics and Noise Control	4
PHO -309	Physics of Non-Conventional Energy Source	4
PHO -310	Numerical Methods and Fortrain Parallel Programming using	4
	open MP	
PHO-311	Phase transitions and Critical phenomena	4
PHO-312	Spectroscopic Techniques in Condensed Matter Physics	4

* Not included for the calculation of GPA, but should be completed successfully.

FACULTY OF LIFE SCIENCES & ENVIRONMENT

Dean: Prof. M. K. Janarthanam

Department of Biotechnology	Programmes Offered	Intake	Fee (Rs.)
Established: 2003	M. Sc.(Marine Biotechnology)	26	11235.00
Code: MB	M. Sc. (Biotechnology)	20	11235.00
	M. Phil. (Biotechnology)		12680.00
	Ph. D.(Biotechnology)		11025.00

A DST-FIST SPONSORED DEPARTMENT

Since its inception in 1988, the M.Sc. Marine Biotechnology programme has been funded by the Department of Biotechnology (Ministry of Science &Technology, Govt. of India, New Delhi), placing Goa University in an enviable position among the top DBT centres for M.Sc. Biotechnology, on par with Universities such as Jawaharlal Nehru University, New Delhi, M.S. University, Baroda, Banaras Hindu University, University of Pune and Madurai Kamraj University, in terms of receiving continuous funding from the DBT for this M.Sc. programme. Students taken in for the programme are nationally selected through the Combined Entrance Examination conducted by the Jawaharlal Nehru University, New Delhi. In view of its reputation and standard in producing world class human resource in Biotechnology in India, the Department was among the few centres identified to double the intake of students for the M.Sc. programme w.e.f. June 2003. Students qualifying through the Combined Entrance Examination of the programme.

The Department is one of the pioneers in Marine Biotechnology teaching research in the country and since the year 2008 has had the added distinction of being DST-FIST sponsored. It had been granted a sum of Rs. 30 lakh by the DBT, exclusively for the replacement of obsolete equipment. It has excellent strengths that have been developed in the following thrust areas: study of agarases, xylanases, lipases, cellulases, alginate lyases, amylases and proteases of special characteristics of commercial importance from marine microorganisms; biodiversity & ecology of hypersaline Actinomycetes and sulphate reducing bacteria; study of marine macroalgae for nutraceutical properties and isolation of lectins; bioactive substances from plant extracts and marine sources; bioremediation of heavy metals by salt pan bacteria and their nanoparticles.

Head of Department: Kerkar, Savita S.,

List of Faculty & Specialization

Professors

Muraleedharan, Usha D., Ph.D. (I.I.Sc., Bangalore) (Biochemistry, Enzymology, Biological Oceanographic Processes).

Kerkar, Savita S, Ph.D. (Goa University) (Marine Microbiology, Hypersaline Ecosystems). **Ghadi, S.C.,** Ph.D. (Goa University) (Molecular Biology, Biodegradation).

Associate Professor

Barros, U., Ph.D. (Bombay University) (Immunology, Applied Biology).

Scientists from the National Institute of Oceanography, Goa also contribute to the teaching of marinerelated courses.

Major Facilities:

PCR facility, UV-vis Spectrophotometers, DNA/protein Fluorometer, Walk-in-Cold Room facility, Cell disruption systems, Protein Chromatography facility, Class II Biosafety Cabinet, Gel Documentation System, Lyophilizer, Tissue Culture facility, Deep freezers (-20 & -80^o C), Fluorescence/Phase Contrast Microscope, Pilot-scale Fermenter, Ultrapure water system, Departmental Library, Computer Lab for Bioinformatics, High speed Refrigerated Centrifuges, Protein purification system.

M.Sc. in Marine Biotechnology programme Scheme of Instruction: (Semester System) Choice based Credit System

Course Code	Course Name	No. of Credits
	SEMESTER I	
MBO 101	FUNDAMENTALS OF GENERAL AND MARINE MICROBIOLOGY	3
MBO 102	CONCEPTS IN BIOCHEMISTRY	3
MBC 103	PRINCIPLES OF GENETICS & MOLECULAR BIOLOGY	3
MBO 104	BIOINSTRUMENTATION	2
MBO 105	BIOSTATISTICS	2
MBO 106	COMMUNICATION SKILLS & SCIENTIFIC WRITING	2
MBC 107	PRINCIPLES OF OCEANOGRAPHY	2
MBO 111	LAB IN MARINE MICROBIOLOGY	2
MBO 112	LAB IN BIOCHEMISTRY	2
MBC 113	LAB IN MOLECULAR GENETICS	2
	SEMESTER II	
MBC 201	INTRODUCTORY IMMUNOLOGY	3
MBC 202	CELL & DEVELOPMENTAL BIOLOGY	3
MBO 203	ENVIRONMENTAL BIOTECHNOLOGY	2
MBC 204	SEMINAR PRESENTATIONS	1
MBC 205	THE MARINE ECOSYSTEM	2
MBO 206	BIOINFORMATICS	2
MBO 207	PLANT TISSUE CULTURE TECHNOLOGY	2
MBC 211	LAB IN IMMUNOLOGY	2
MBC 215	LAB IN MARINE BIOLOGY & CHEMISTRY	2
MBO 216	LAB IN BIOINFORMATICS	2
MBO 217	LAB IN PLANT TISSUE CULTURE	1
	SEMESTER III	
MBC 301	BIOPROCESS & INDUSTRIAL BIOTECHNOLOGY	3
MBC 302	RECOMBINANT DNA TECHNOLOGY	3
MBC 303	ANIMAL CELL CULTURE	2
MBC 304	SUMMER TRAINING PRESENTATION & REPORT	1
MBO 307	ENZYMOLOGY	3
MBO 308	MOLECULAR IMMUNOLOGY	3
MBC 311	LAB IN FERMENTATION TECHNOLOGY	2
MBC 312	LAB IN RECOMBINANT DNA TECHNOLOGY	2
MBO 313	LAB IN ANIMAL CELL CULTURE	1
MBO 317	LAB IN ENZYME CHARACTERIZATION	2
	SEMESTER IV	
MBC 402	AQUACULTURE TECHNOLOGY & MARINE PHARMACOLOGY	3
MBC 403	POTENTIAL APPLICATIONS OF MARINE ORGANISMS	3
MBC 404	SEMINAR PRESENTATIONS	1
MBO 406	BIOSAFETY & IPR	3

MBO 408	APPLICATIONS OF RECOMBINANT DNA TECHNOLOGY	3
MBO 409	GENOMICS AND PROTEOMICS	3
MBO 410	CELLULAR BIOPHYSICS	3
MBO 411	SCUBA DIVING	2
MBO 412	DISSERTATION*	8

NB: Code: O: Optional; C: Core

*Summer training (4-6 weeks) is mandatory after completion of the Second semester and the students are placed by the Department in R& D laboratories of nationally recognized institutes and industries. During the third and fourth semesters, the students undertake independent research projects as part of the curriculum.

Most of our postgraduate students have been qualifying for the CSIR/UGC NET/SET fellowship, some of them also securing a very high ranking at the GATE examination. This is in addition to their achievements at the DBT, BITP/BCIL and ICMR fellowship examinations. The placement profile of each outgoing batch has also been excellent, with the students successfully gaining positions in nationally as well as internationally renowned institutions.

As part of the curriculum, the students are given the opportunity to undertake independent research projects during the third and fourth semesters, for which they are assessed through dissertation reports and presentations. Dissertation is compulsory for M.Sc.Marine Biotechnology.

With effect from the academic year 2013-14, the Department has been offering two additional programmes, *viz.*, M.Sc. (Biotechnology) and M.Phil. (Biotechnology), specially to cater to the increasing requirements of the students of Goa for excellence in various aspects of Biotechnology.

M.Sc. in Biotechnology programme Scheme of Instruction: (Semester System) Choice based Credit System

Course Code	Name of the Course	No of Credits
	SEMESTER I	
GBC 101	FUNDAMENTALS OF MICROBIOLOGY	3
GBC 102	CONCEPTS IN BIOCHEMISTRY	3
GBC 103	PRINCIPLES OF GENETICS & MOLECULAR BIOLOGY	3
GBC 104	BIOINSTRUMENTATION	2
GBO 105	BIOSTATISTICS	2
GBO 106	COMMUNICATION SKILLS AND SCIENTIFIC WRITING	2
GBO 107	PRINCIPLES OF OCEANOGRAPHY	2
GBC 111	LAB IN MICROBIOLOGY	2
GBC 112	LAB IN BIOCHEMISTRY	2
GBC 113	LAB IN MOLECULAR GENETICS	2
	SEMESTER II	
GBC 201	INTRODUCTORY IMMUNOLOGY	3
GBC 202	CELL & DEVELOPMENTAL BIOLOGY	3
GBC 203	ENVIRONMENTAL BIOTECHNOLOGY	2
GBC 204	SEMINAR PRESENTATIONS	1
GBO 205	MARINE ECOSYSTEMS	2
GBO 206	BIOINFORMATICS	2

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GBO 207	PLANT TISSUE CULTURE TECHNOLOGY	2
GBC 211	LAB IN IMMUNOLOGY	2
GBO 215	LAB IN MARINE BIOLOGY & CHEMISTRY	2
GBO 216	LAB IN BIOINFORMATICS	2
GBO217	LAB IN PLANT TISSUE CULTURE	1
	SEMESTER III	
GBC 301	BIOPROCESS & INDUSTRIAL BIOTECHNOLOGY	3
GBC 302	RECOMBINANT DNA TECHNOLOGY	3
GBC 303	ANIMAL CELL CULTURE	2
GBC 304	FIELD TRIPS & REPORT	1
GBO 305	NANOBIOTECHNOLOGY	2
GBO 306	FOOD BIOTECHNOLOGY	2
GBO 307	ENZYMOLOGY	3
GBO 308	MOLECULAR IMMUNOLOGY	3
GBO 311	LAB IN FERMENTATION TECHNOLOGY	2
GBC 312	LAB IN RECOMBINANT DNA TECHNOLOGY	2
GBO 313	LAB IN ANIMAL CELL CULTURE	1
GBO 317	LAB IN ENZYME CHARACTERIZATION	2
	SEMESTER IV	
GBO 402	AQUACULTURE & MARINE PHARMACOLOGY	3
GBO 403	POTENTIAL OF MARINE ORGANISMS	3
GBO 404	BIOENTREPRENEURSHIP	2
GBC 404	SEMINAR PRESENTATIONS	1
GBO 405	BIOSAFETY & IPR	3
GBO 406	ADVANCES IN PLANT BIOTECHNOLOGY	3
GBO 407	ADVANCES IN ANIMAL BIOTECHNOLOGY	3
GBO 412	DISSERTATION*	8

NB: Code: O: Optional; C: Core

Programme: M. Phil. In Biotechnology (One Compulsory +Any two optional papers)

- 1. Paper I (Compulsory) : Research Methodology & Techniques
- 2. Paper II (Optional -1) : Functional Genomics
- 3. Paper III (Optional-2) : Microbial Technology
- 4. Paper IV (Optional-3): Protein Chemistry and Enzyme Characterization
- 5. Paper V (Optional-4) : Basic Physics in Biosystems

Department of Botany	Programmes Offered	Intake	Fees (Rs.)
Established: 1990	M.Sc.	30	11235.00
Code: BO	M.Phil.	10	12680.00
	P.G. Diploma in Applied Plant Science	10	21670.00
	Ph.D.		11025.00

DST-FIST/UGC-SAP SPONSORED DEPARTMENT

The Department offers postgraduate studies and research in Botany with thrust area in Plant Diversity (Algae, Fungi and Higher Plants), Plant Molecular Biology & Genetic Engineering, Plant Tissue Culture, Plant Developmental Biology, Plant Histochemistry, Plant Physiology and Mycorrhizal Research. Department has active R & D collaboration with industries on wine technology, mushroom cultivation and revegetation of mine wastelands.

Head of Department: Kerkar, V. U.

List of Faculty & Specialisation:

<u>Professors</u>

- Sharma, P. K, Ph.D. (University of London, UK) (Plant Physiology, Plant Biology, Molecular Biology, Eco-Physiology and Plant Productivity).
- Janarthanam, M. K, Ph.D. (Bharathiar University) (Plant Systematics, Ecology, Biodiversity, Plantanimal interactions, Remote Sensing & GIS).
- Rodrigues, B. F, Ph.D. (Goa University) (Cytogenetics and Plant Breeding, Mycorrhizae, Waste land Reclamation, Medicinal Plants).
- Kerkar, V. U, Ph.D. (Goa University) (Phycology and Pteridophytes).
- Krishnan, S, Ph.D. (Madras University) (Plant Developmental Biology, Rice Biology, Plant Histochemistry, Plant Biotechnology and Molecular Biology).

Assistant Professor

Kamat, N, Ph.D. (Bombay University) (Mycology, Fungal Chemistry, Microbiology, Biotechnology, Environmental Impact Assessment).

Major Facilities and Equipments:

Poly Houses and Botanical Garden to cultivate and maintain medicinal, ornamental and endangered plants and to conduct research under controlled conditions; Fungus Culture Collection and Research Unit (FCCU), Plant Tissue Culture; Herbarium; Internet & Wi-Fi connectivity, Computer Laboratory, Microscopes of various types with photographic attachments and image analyzing system, Fluorescence microscope, photosynthesis & productivity measuring system, Chlorophyll fluorometer, Infra-red Gas analyser, Oxygen Evolution (photosynthetic electron transport) and consumption (respiratory electron transport) analysis, HPLC, GC, Gradient PCRs, RT-PCR, SEM, Electrophoresis and Gel Documentation Systems, Double Beam Spectrophotometers - 80°C and 20°C C Deep Freezers, High speed Homogeniser, Orbital Shakers, Cooling Centrifuge, Rotary evaporators, Lyopholizer, Proteomics system and Cold Room are available in the Department.

Eligibility Criteria for Admission in M. Sc. Botany Programme: The following students are eligible for admission to M. Sc. Botany Programme in order of preference.

- B. Sc. Botany with 6 units at T.Y.B.Sc.
- B. Sc. Botany with 3 units at T.Y.B.Sc.

M.Sc. Botany Programme Scheme of Instruction (Semester System) (Choice Based Credit System)

In the following tables, L refers to lectures and P to practicals. Description of a course appears on the page number listed in the tables.

Compulsory Courses

Course		L - P	•
Number	Course Title		Credits
		week)	
BOC-111	Algae, Bryophytes, Pteridophytes, Gymnosperms	3-0	3
BOC-112	Lab in Algae, Bryophytes, Pteridophytes, Gymnosperms	0-1	1
BOC-113	Plant Microbiology and Pathology	3-0	3
BOC-114	Lab in Plant Microbiology and Pathology	0-1	1
BOC-115	Systematics of Angiosperms	3-0	3
BOC-116	Lab in Systematics of Angiosperms	0-1	1
BOC-211	Internal Morphology and Developmental Biology: Angiosperms.	3-0	3
BOC-212	Lab in Internal Morphology and Developmental Biology: Angiosperms	0-1	1
BOC-213	Advanced Ecology	3-0	3
BOC-214	Lab in Advanced Ecology	0-1	1
BOC-215	Plant Physiology	3-0	3
BOC-216	Lab in Plant Physiology	0-1	1
BOC-311	Plant Molecular Biology	3-0	3
BOC-312	Lab in Plant Molecular Biology	0-1	1
BOC-313	Plant Genetic Engineering	3-0	3
BOC-314	Lab in Plant Genetic Engineering	0-1	1
BOC-411	Cytogenetics and Plant Breeding	3-0	3
BOC-412	Lab in Plant Genetic Engineering	0-1	1
BOC-413	Modern Concepts in Plant Ecology	3-0	3
BOC-414	Lab in Modern Concepts in Plant Ecology	0-1	1

Optional Courses (a student must choose at least 20 credits from the following)

Course Number	Course Title	L- P (hours/week)	Credits
BOO-111	Techniques and Instrumentation in Botany	3+0	3
BOO-112	Lab in Techniques and Instrumentation in Botany	0+1	1
BOO-113	Bioinformatics and Chemoinformatics	2+0	2
BOO-114	Lab in Bioinformatics and Chemoinformatics	0+2	2
BOO-115	Oenology (Wine Science and Technology)	1+0	1
BOO-116	Lab in Oenology (Wine Science and Technology)	0+1	1
BOO-117	Mine Wasteland Management	1+0	1
BOO-211	Plant-Animal Interactions	4+0	4
BOO-212	Mycological Techniques	3+0	3
BOO-213	Lab in Mycological Techniques	0+1	1

BOO-214	Post Harvest Technology for Fruit Crops	2+0	2
BOO-215	Ethnobotany	2+0	2
BOO-311	Applied Phycology	2+0	2
BOO-312	Plant Biotechnology	3+0	3
BOO-313	Lab in Plant Biotechnology	0+1	1
BOO-314	Mycorrhizal Biotechnology	2+0	2
BOO-315	Lab in Mycorrhizal Biotechnology	0+1	1
BOO-316	Plant Histochemistry	2+0	2
BOO-317	Lab in Plant Histochemistry	0+1	1
BOO-318	Introduction to Paleoflora	1+0	1
BOO-319	Lab in Plant identification	0+1	1
BOO-320	Remote sensing: Techniques and Applications	3+0	3
BOO-321	Lab in Remote sensing	0+1	1
BOO-411	Fungal Chemistry and Mycoremediation	1+0	1
BOO-412	Lab in Fungal Chemistry and Mycoremediation	0+1	1
BOO-413	Photosynthesis and Crop Productivity	2+0	2
BOO-414	Phytochemistry	1+0	1
BOO-415	Lab in Phytochemistry	0+1	1
BOO-416	Glycobiology	1+0	1
BOO-417	Lab in Glycobiology	0+1	1
BOO-418	Plant Biochemistry	3+0	3
BOO-419	Lab in Plant Biochemistry	0+1	1
BOO-420	Bioentrepreneurship and Innovation	1+0	1
BOO-421	Lab in Bioentrepreneurship and Innovation	0+1	1
BOO-422	Mushroom biotechnology	1+0	1
BOO-423	Lab in Mushroom biotechnology	0+1	1
BOO-424	Seed Science and Technology	3+0	3
BOO-425	Lab in Seed Science and Technology	0+1	1
BOO-426	Marine Phytoplankton	1+0	1
BOO-427	Ecotourism	2+0	2
BOO-428	Lab in Ecotourism	0+1	1
BOO-429	Advances in Mycology Taxonomy, Biology and	0+2	2
	Application of Fungi		
BOO-430	Lab in Advances in Mycology: Taxonomy, Biology and	0+1	1
	Application of Fungi		
BOO-431	Fungal Biodiversity, Bioprospecting and Biotechnology	3+0	3
BOO-432	Lab in Fungal Biodiversity, Bioprospecting and	0+1	1
	Biotechnology		
BOO-433	Economic Botany	0+2	2
BOO-434	Aquatic Plant Resources and their Management	1+0	1

Evaluation: Evaluation of students is through internal assessment 40% of the assessment is in theform of continuous internal assessment during the Semesters through multiple written tests, assignments, seminars, practicals, etc. Remaining 60% of the assessment will be through written test (theory & practicals) at the end of the semester.

P.G. Diploma in Applied Plant Sciences:

The Department also offers self-financed and need-based Postgraduate Diploma in Applied Plant Sciences (horticulture, floriculture, agriculture, Silviculture, Organic Farming, Natural Resources Management, Landscaping and Gardening, Mushroom Cultivation and Post-Harvest Technology) in order to develop manpower. The programme has both theory and practical components and is offered in association with various Agricultural Institutes/Universities. Details can be obtained from the Department.

M. Phil. (Botany and Plant Biotechnology)

One year M. Phil. Programme in Botany and Plant Biotechnology. There will be one compulsory course and two optional courses which students can choose from the options available, according to their specialization.

List of Courses			
Compulsory Co	Compulsory Courses		
BMC-101	Research Methodology and Techniques	4	
Optional I			
BMO-101	Biotechnology and Applications	4	
Optional II			
BMO-201	Advances in Fungal Biology and Biotechnology	4	
BMO-202	Plant molecular stress physiology	4	
BMO-203	Coastal vegetation and management	4	
BMO-204	Advances in plant breeding and crop improvement	4	
BMO-205	Plant Systematics and Biogeography	4	
BMO-206	Developmental Biology of Flowering Plants	4	

IMPORTANT : Optional II will be in the area of specialization/dissertation.

Department of Marine Science	Programmes Offered	Intake	Fee (Rs.)
Established: 1985	M.Sc.	25	11235.00
Code: MS	M.Phil.	05	12680.00
Established: 1985 Code: MS	Ph.D.		11025.00

DST-FIST SUPPORTED DEPARTMENT

The Department of Marine Science offers postgraduate (M.Sc.) programme in Marine Science. Marine Science is an interdisciplinary programme with common courses in the first year (I & II Semesters) and specialisation courses in the second year (III & IV semesters). Specialisations offered are Physical Oceanography, Marine Chemistry, Marine Biology and Marine Geology.

The Department also offers research (Ph. D.) programme. The thrust areas of research are:

Physical Oceanography: (i) Optical Remote Sensing, Marine optics, Algorithm developments for retrieval of colour components from optically complex case II waters – coastal and estuarine waters, Radiative transfer modelling of visible spectrum of electromagnetic radiation, Identification of perennial source CO₂ through optical remote sensing, Marine aerosol over tropics, sub-tropics and polar waters - Atmospheric optics, Aerosol and atmospheric optics, Effect of aerosol on climate, Spatial Variability of maritime aerosol and Angstrom formula, Aerosol radiative forcing, Synoptic analysis of aerosol through satellite data, Satellite oceanography and meteorology, Air-sea interaction and genesis of water masses, Ocean circulation.

Marine Chemistry: Biogeochemical cycling of nutrients and trace metals in estuaries and adjoining coastal waters; Dissolved - particulate interactions of trace elements; Impact of pollutants (mining, sewage and industrial) on water quality, sediment composition and biota in estuaries and adjoining coastal waters, Speciation of some minor elements to understand dominant fraction of the total elements; Sorption modeling of trace metals.

Marine Biology: Marine demersal fish biodiversity assessment, Community structure, Trophic dynamics and ecosystem function, Database and photo documentation of demersal fish communities in coastal waters.

Marine Geology: Coastal and estuarine sediment characterization, Coastal morphology and dynamics, Coastal zone management, Impact of mining on lacustrine and estuarine sedimentary environment – suspended and bed-load sediments, Geochemistry of lacustrine & estuarine sediments and tidal / mudflat sedimentary environment, Speciation of elements in estuarine sediments and bioavailability of metals, Magnetic susceptibility of estuarine and mudflat sediments, Suspended matter and its chemistry of Southern Ocean, Environment assessment studies of estuaries and lakes, Reading pollution history through mudflat studies.

Head of Department: Rivonker C. U.,

List of Faculty & Specialisation

Professors

- Nayak, G. N, Ph.D. (Karnatak University) (Marine Geology, Modern Sedimentology, Sediment Geochemistry, Coastal Dynamics, Estuarine Sediments, Tidal/Mud Flats, Environmental Studies)
- Menon, H. B, Ph.D. (University of Science & Tech., Cochin) (Physical Oceanography and Meteorology, Optical Remote Sensing, Marine and Atmospheric Optics, Aerosol Science, Radiative Transfer Modeling).

Rivonker, C. U., Ph.D. (Goa University) (Marine Ecology, Aquaculture and Fisheries)

Matta, Vishnu. M, Ph.D. (Andhra University) (Marine Chemistry, Environmental Pollution, Seaweed Chemistry)

Associate Professors

Upadhyay, S, Ph.D. (University of Poona & University of East Anglia, U.K.) (Marine Chemistry, Estuarine Chemistry, Aquatic Geochemistry)

Assistant Professor

Can, A. A., M. Tech., Ph.D. (Goa University) (Satellite Meteorology and Oceanography, Physical Oceanography, Marine Meteorology)

<u>M.Sc. Marine Science programme</u> Scheme of Instruction (Semester System) (Choice Based Credit System)

Core Courses

Course Code and Name	L-T-P (hours/week)	Credits
MSC 131 Physical Oceanography	4-0-0	4
MSC 132 Marine Chemistry	4-0-0	4
MSC 133 Marine Biology Practical	0-0-4	2
MSC 231 Marine Geology	4-0-0	4
MSC 232 Computational Methods in Oceanography	4-0-0	4
MSC 233 Computational Methods in Oceanography Practical	0-0-4	2
MSC 331 Geophysical Fluid Dynamics	4-0-0	4
MSC 332 Ocean -Atmosphere coupling and Climate I	2-0-0	2
MSC 333 Geophysical Fluid Dynamics Practical	0-0-4	2
MSC 334 Ocean -Atmosphere coupling and Climate Practical	0-0-4	2
MSC 335 Marine Pollution Practical	0-0-4	2
MSC 337 Marine Pollution I	2-0-0	2
MSC 338 Marine Pollution II	2-0-0	2
MSC 341 Marine Geochemistry Practical I	0-0-2	1
MSC 342 Marine Geochemistry Practical II	0-0-2	1
MSC 346 Marine Ecology	4-0-0	4
MSC 347 Marine Ecology Practical	0-0-4	2
MSC 350 Sedimentology	4-0-0	4
MSC 351 Sedimentology Practical	0-0-4	2
MSC 431 Estuarine and Coastal Physical Oceanography	2-0-0	2
MSC 432 Estuarine Chemistry	2-0-0	2
MSC 433 Estuarine Biology	2-0-0	2
MSC 434 Estuarine and Coastal Geology	2-0-0	2

Optional Courses Course Code and Name	L-T-P (hours/ week)	Credits	
MSO 134 Marine Biology	4-0-0	4	
MSO 135 Geomorphology and Tectonics	2-0-0	2	
MSO 136 Physical Oceanography Practical	0-0-4	2	
MSO 137 Marine Chemistry Practical I	0-0-4	2	
MSO 234 Marine Geology Practical	0-0-4	2	
MSO 235 Remote Sensing and its application	4-0-0	4	
MSO 236 Remote Sensing and its application Practical	0-0-4	2	
MSO 237 Analytical Chemistry of Sea water and Instrumental Techniques	4-0-0	4	
MSO 238 Analytical Chemistry of Sea water and Instrumental Techniques Practical	0-0-4	2	
MSO 239 Aquaculture	4-0-0	4	
MSO 240 Aquaculture Practical	0-0-4	2	
MSO 241 Marine Chemistry Practical II	0-0-4	2	
MSO 242 GIS Applications in Marine Science Practical	0-0-4	2	
MSO 336 Ocean – Atmosphere coupling and climate II	2-0-0	2	
MSO 337 Marine Pollution I	2-0-0	2	
MSO 338 Marine Pollution II	2-0-0	2	
MSO 339 Aerosol and Atmospheric Optics	2-0-0	2	
MSO 340 Aerosol Chemistry Practical	0-0-4	2	
MSO 343 Marine Geochemistry I	2-0-0	2	
MSO 344 Marine Geochemistry II	1-0-0	1	
MSO 345 Marine Geochemistry III	1-0-0	1	
MSO 348 Marine Microbial Ecology	4-0-0	4	
MSO 349 Marine Microbial Ecology Practical	0-0-4	2	
MSO 435 Dynamic Oceanography I	2-0-0	2	
MSO 436 Dynamic Oceanography II	2-0-0	2	
MSO 437 Physical and Inorganic Chemistry of Sea water	4-0-0	4	
MSO 438 Marine Biodiversity, Conservation and Practices	4-0-0	4	
MSO 439 Marine Geo-physics	4-0-0	4	
MSO 440 Dissertation	0-0-2	8	

Department of Microbiology	Programmes Offered	Intake	Fees (Rs.)
Established: 1974 (CPIR)	M.Sc. Microbiology	20	11235.00
Code: MI/MM/BC	M.Sc. Marine Microbiology	20	80000.00
	M.Sc. Biochemistry	20	80000.00
	Ph. D.		11025.00

The Department carries out research in thrust areas such as Molecular Microbiology, Marine Microbiology, Microbial Ecology, Environmental Microbiology, Genetic Engineering, Extremophilic Microorganisms and Microbial Bio prospecting for enzymes, antimicrobial metabolites and PHA.

Head of Department: Nazareth S. W.

List of Faculty & their Specialization

Professors

- **Dubey, S. K,** Ph.D. (Banaras Hindu University) (Molecular Biology, Genetic Engineering, Agricultural Microbiology, General and Applied Microbiology, Environmental Microbiology, Microbial Bio prospecting).
- **Nazareth, S,** Ph.D. (University of Bombay) (Biochemistry, Mycology, Antimicrobials, Microbial degradations and metal remediation, Halophilic fungi).

Associate Professor

Garg, S, Ph.D. (University of Delhi) (Industrial & Medical Microbiology, Microbial Technology, Marine Microbiology, Fungal Fermentation, Immunology, Biostatistics, Mathematics, Computer Application, Fishery Microbiology).

Assistant Professor

- **Charya, L. S,** Ph.D. (Goa University) (Environmental Microbiology, Bioremediation, Ectomycorrhizal fungi).
- **D'Costa, P. M,** Ph.D. (Goa University) (Marine Microbiology, interactions between phytoplankton and bacteria, phytoplankton, diversity, biofilms).
- Naik, M. M, Ph.D. (Goa University) (Environmental Microbiology, Marine Microbiology, Molecular Biology, Microbial genetics, Agricultural Microbiology).

Major Facilities:

High Pressure Liquid Chromatography: Lyophilisation Unit; Atomic Absorption Spectrophotometer; High speed and Cooling Centrifuges: Gel Electrophoretic units for protein/DNA, Fluorescent, Phase contrast and General Microscopy; Fluoresence and UV-Vis Spectrophotometer; Thermal Cycler; Gas Chromatography; UV Transilluminator; Millipore Ultra Filtration Unit; Waterbath; Incubator-shakers; Spectrofluorimeter; Rheometer; Fermentor; Oxygen Analyser; Gel Documentation Systems; SDS-PAGE & IEF System; Nanodrop spectrophotometer, PCR, Eporator, Freezer (-20° C).

<u>M.Sc. Microbiology programme</u> Scheme of Instruction (Semester System)

	Choice Based Credit Sys	tem		
	CORE COURSES			
CODE	COURSE	CREI	DIT(S)	Contact Hours
		Theory	Practical	
MIC 101-T	Microbial Biochemistry [T]	3	-	45
MIC 101-P	Microbial Biochemistry [P]	-	1	30
MIC 102-T	Microbial Genetics [T]	3	-	45
MIC 102-P	Microbial Genetics [P]	-	1	30
MIC 103-T	Microbial Taxonomy and Systematics [T]	3	-	45
MIC 103-P	Microbial Taxonomy and Systematics [P]	-	1	30
MIC 104-T	Techniques and Instrumentation in Microbiology [T]	3	-	45
MIC 104-P	Techniques and Instrumentation in Microbiology [P]	-	1	30
MIC 105-T	Biostatistics [T]	3	-	45
MIC 105-P	Biostatistics [P]	-	1	30
MIC 201-T	Industrial Microbiology [T]	3	-	45
MIC 201-P	Industrial Microbiology [P]	-	1	30
MIC 202-T	Archaea – Ecology, Physiology, Biochemistry, Genetics [T]	3	-	45
MIC 202-P	Archaea – Ecology, Physiology, Biochemistry, Genetics [P]	-	1	30
MIC 203-T	Molecular Biology [T]	3	-	45
MIC 203-P	Molecular Biology [P]	-	1	30
MIC 204-T	Marine Microbiology [T]	3	-	45
MIC 204-P	Marine Microbiology [P]	-	1	30
MIC 205-T	Mycology [T]	3	-	45
MIC 205-P	Mycology [P]	-	1	30
	OPTIONAL COURSES			
		CREI	DIT(S)	Contact
CODE	COURSE	Theory	Practical	Hours
MIO 101-T	Medical Virology [T]	3	-	45
MIO 102-T	Environmental Microbiology and Bioremediation [T]	3	-	45
MIO 102-P	Environmental Microbiology and Bioremediation [P]	-	1	30
MIO 103-T	Genetic Engineering [T]	3	-	45
MIO 103-P	Genetic Engineering [P]	-	1	30
		1		1

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1

-

45

30

45

3

-

3

Immunology [T]

Immunology [P]

Extremophilic Microorganisms [T]

MIO 104-T

MIO 104-P

MIO 105-T

140 405 D				20
MIO 105-P	Extremophilic Microorganisms [P]	-	1	30
MIO 106-T	Research Methodology [T]	1	-	15
MIO 107-T	Microbial Technology [T]	3	-	45
MIO 107-P	Microbial Technology [P]	-	1	30
MIO 108-T	Food Microbiology [T]	3	-	45
MIO 108-P	Food Microbiology [P]	-	1	30
MIO 109-T	Agriculture Microbiology [T]	3	-	45
MIO 109-P	Agriculture Microbiology [P]	-	1	30
MIO 110-T	Medical Microbiology and Epidemiology [T]	3	-	45
MIO 110-P	Medical Microbiology and Epidemiology [P]	-	1	30
MIO 111-T	Marine Microbial Interactions [T]	3	-	45
MIO 111-P	Marine Microbial Interactions [P]	-	1	30
MIO 201-P	Field Trip/Study Tour	-	1	30
MIO 202	Training in an Institute/ Industry/ University	-	1	-
MID 301	Dissertation	-	8	-

Under Optional Courses:

- The theory course is a prerequisite for any practical course.
- Students of Microbiology and Marine Microbiology Programmes shall be required to take both Theory and Practical Courses under a given Course Title.

Innovative M.Sc. in Marine Microbiology

UGC sponsored programme for Teaching and Research in Marine Microbiology. Scheme of Instruction (Semester System)

Choice Based Credit System

	CORE COURSES				
CODE	COURSE	CREDIT(S)		Contact Hours	
		Theory	Practical	nours	
MMC 101-T	Microbial Biochemistry [T]	3	-	45	
MMC 101-P	Microbial Biochemistry [P]	-	1	30	
MMC 102-T	Microbial Genetics [T]	3	-	45	
MMC 102-P	Microbial Genetics [P]	-	1	30	
MMC 103-T	Microbial Taxonomy and Systematics [T]	3	-	45	
MMC 103-P	Microbial Taxonomy and Systematics [P]	-	1	30	
MMC 104-T	Techniques and Instrumentation in Microbiology [T]	3	-	45	
MMC 104-P	Techniques and Instrumentation in Microbiology [P]	-	1	30	

MMC 105-T	Biostatistics [T]	3	-	45
MMC 105-P	Biostatistics [P]	-	1	30
MMC 201-T	Industrial Microbiology [T]	3	-	45
MMC 201-P	Industrial Microbiology [P]	-	1	30
MMC 202-T	Archaea – Ecology, Physiology, Biochemistry, Genetics [T]	3	-	45
MMC 202-P	Archaea – Ecology, Physiology, Biochemistry, Genetics [P]	-	1	30
MMC 203-T	Molecular Biology [T]	3	-	45
MMC 203-P	Molecular Biology [P]	-	1	30
MMC 204-T	Marine Microbiology [T]	3	-	45
MMC 204-P	Marine Microbiology [P]	-	1	30
MMC 205-T	Genetic Engineering [T]	3	-	45
MMC 205-P	Genetic Engineering [P]	-	1	30
OPTIONAL COU	RSES			
CODE	COURSE	CREDIT(S)		Contact Hours
		Theory	Practica I	Tiours
MMO 101-T	Marine Pollution and Microbial Remediation [T]	3	-	45
MMO 101-P	Marine Pollution and Microbial Remediation [P]	-	1	30
MMO 102-T	Marine Microbial Prospecting and Technology [T]	3	-	45
MMO 102-P	Marine Microbial Prospecting and Technology [P]	-	1	30
MMO 103-T	Marine Microbial Genomics [T]	3	-	45
MMO 103-P	Marine Microbial Genomics [P]	-	1	30
MMO 104-T	Marine Environment and Public Health Management [T]	3	-	45
MMO 104-P	Marine Environment and Public Health Management [P]	-	1	30
MMO 105-T	Marine Extremophilic Microorganisms [T]	3	-	45
MMO 105-P	Marine Extremophilic Microorganisms [P]	-	1	30
		1		
MMO 106-T	Marine Virology [T]	3	-	45
MMO 106-T MMO 107-T	Marine Virology [T] Techniques in Microbial Oceanography [T]	3	-	45 45
			1	

MMO 108-T	Microbial Ecology of the Deep Marine Environment [T]	4	-	60
MMO 109-T	Fishery Microbiology [T]	3	-	45
MMO 109-P	Fishery Microbiology [P]	-	1	30
MMO 110-T	Polar Microbiology [T]	4	-	60
MMO 111-T	Marine Mycology [T]	3	-	45
MMO 111-P	Marine Mycology [P]	-	1	30
MMO 201-P	Study Tour / Field Trip	-	1	30
MMO 202	Training in an Institute / Industry / University	-	2	60
MMO 301	Dissertation	-	8	-

Under Optional Courses:

- The theory course is a prerequisite for any Practical Course.

- Students of Microbiology and Marine Microbiology programmes shall be required to take both Theory and Practical Courses under a given Course Title.

M.Sc. Biochemistry programme

Scheme of Instruction (Semester System) Choice Based Credit System

	CORE COURSES			
CODE	COURSE	CREDIT(S)		Contact
		Theory	Practical	Hours
BCC 101-T	Fundamentals of Biochemistry [T]	3	-	45
BCC 101-P	Fundamentals of Biochemistry [P]	-	1	30
BCC 102-T	Enzymology [T]	3	-	45
BCC 102-P	Enzymology [P]	-	1	30
BCC 103-T	Analytical Biochemistry - I [T]	3	-	45
BCC 103-P	Analytical Biochemistry - I [P]	-	1	30
BCC 104-T	Microbes In Health and Disease [T]	3	-	45
BCC 104-P	Microbes In Health and Disease [P]	-	1	30
BCC 105-T	Biostatistics [T]	3	-	45
BCC 105-P	Biostatistics [P]	-	1	30
BCC 201-T	Clinical Biochemistry [T]	3	-	45
BCC 201-P	Clinical Biochemistry [P]	-	1	30
BCC 202-T	Molecular Biology [T]	3	-	45
BCC 202-P	Molecular Biology [P]	-	1	30

BCC 203-T	Analytical Biochemistry - II [T]	3	-	45
BCC 203-P	Analytical Biochemistry - II [P]	-	1	30
BCC 204-T	Immunology- I [T]	2	-	30
BCC 204-P	Immunology- I [P]	-	1	30
BCC 205-T	Hormones [T]	2	-	30
BCC 206-T	Membrane Biochemistry [T]	1	-	15
BCC 207-T	Research Methodology [T]	1	-	15
BCC 207-P	Research Methodology [P]	-	1	30

OPTIONAL CODE	COURSE	CRE	DIT(S)	Contact	Page
		Theory	Practical	Hours	No.
BCO 101-T	Genetic Engineering [T]	3	-	45	25
BCO 101-P	Genetic Engineering [P]	-	1	30	27
BCO 102-T	Nutrition and Food Biochemistry [T]	3	-	45	28
BCO 102-P	Nutrition and Food Biochemistry [P]	-	1	30	29
BCO 103-T	Immunology - II [T]	3	-	45	30
BCO 104-T	Neurochemistry [T]	2	-	30	32
BCO 105-T	Drug Metabolism [T]	1	-	15	33
BCO 105-P	Drug Metabolism [P]	-	1	30	34
BCO 106-T	Biochemistry of Environmental Pollution	3	-	45	35
	and Remediation [T]				
BCO 106-P	Biochemistry of Environmental Pollution	-	1	30	36
	and Remediation [P]				_
BCO 107-T	Industrial Biochemistry [T]	3	-	45	37
BCO 107-P	Industrial Biochemistry [P]	-	1	30	38
BCO 108-T	Frontiers in Biotechnology [T]	3	-	45	39
BCO 108-P	Frontiers in Biotechnology [P]	-	1	30	40
BCO 109-T	Bioprospecting [T]	3	-	45	41
BCO 109-P	Bioprospecting [P]	-	1	30	42
BCO 110-T	Nanobiotechnology [T]	3	-	45	43
BCO 110-P	Nanobiotechnology [P]	-	1	30	44
BCO 111-T	Pharmaceutics [T]	3	-	45	45
BCO 111-P	Pharmaceutics [P]	-	1	30	46
BCO 201-P	Study Tour/Field Trip	_	1	30	47
BCO 202	Training in an Institute/Industry/ University	-	1	-	48
		I	· ·		
BCD 301	Dissertation	-	8	-	49

Under Optional Courses:

- The theory course is a prerequisite for any Practical Course.

- Students of Biochemistry programme shall be required to take both Theory and Practical Courses under a given Course Title.
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Department of Zoology	Programmes Offered	Intake	Fees (Rs.)
Established: 1990 Code: ZO	M. Sc.	30	11235.00
Code: ZO	PG Diploma in CG&MLT	20	38850.00
	M. Phil.		12680.00
	Ph. D.		11025.00

DST-FIST/UGC-Special Assistance Programme (SAP) Sponsored Department

The Department offers Masters Programme in Zoology with emphasis on core areas of Biodiversity, various forms of life and Life processes in relation to habit and habitat of the organism. Departments also give importance in the recent advances of animal genetics, molecular biology and their application in their post graduate curriculum. Department undertake the research in the areas of biodiversity, avian biology, environmental physiology, membrane biochemistry, nutritional biochemistry, genetic toxicology, vector borne diseases etc. of local, national and international importance. Besides, department also offers a self financed, job oriented PG Diploma program in Clinical Genetics and Medical Laboratory Techniques in collaboration with Goa Medical College. This program is a two semester teaching followed by one semester hands on training in different clinical laboratories for State/Central Govt. Recognized Medical College/Hospitals /Institute.

Head of Department: Shyama S.K.,

List of Faculty & Specialisation:

Professor

Shyama, S. K, Ph. D. (Mangalore University) (Genetic Toxicology, Human Genetics).

Roy, R., Ph. D. (Visva Bharati University, Shantiniketan) (Environmental Physiology, Lipid Biochemistry, Nutritional Biochemistry).

Pai, I. K, Ph. D. (Mysore University) (Genetics, Sericulture, Biodiversity).

Besides, Department is having faculty on contract basis to run the regular academic programs.

Major Facilities:

Environmental Chamber, Animal Tissue Culture facility, Animal house facility, Cold Room, Ultra Centrifuge machine, Trinocular Research Microscope, Fluorescent Microscope, Spectrofluorophotometer, UV – Visible Spectrophotometer, nano- drop Spectrophotometer, HPLC, Thermal Cycler, GC-Mass etc.

M.Sc. Zoology Programme Scheme of Instruction (Semester System) Choice Based Credit System

Semester I		No. of Credits
ZOC101	Animal Taxonomy and Systematics	4
ZOC102	Comparative Anatomy of Non-Chordates and Chordates	4
ZOC103	Animal Biochemistry	4
ZOC104	Cell and Molecular Biology	4
ZOC105	Lab course (based on papers ZOC 101, 102, 103 and 104)	4
Semester II		
ZOC201	Animal Genetics	4
ZOC202	Comparative Animal Physiology	4
ZOC203	Developmental Biology	4
ZOC204	Agricultural Entomology	4

ZOC205	Lab course II (based on papers ZOC 201, 202, 203 & 204)	4
Semester III		
ZOO301	Environmental Physiology	4
ZOO302	Animal Tissue Culture	4
ZOO303	Human Genetics	4
ZOO304	Parasitology	4
ZOO305	Marine Zoology	4
ZOO306	Molecular Endocrinology	2
ZOO307	Wildlife Biology	2
ZOO308	Immunology*	2
ZOO309	Animal Behaviour*	2
ZOO310	Radiation Biology*	2
Semester IV		
ZOO401	Toxicology	3
ZOO402	Fishery Biology	3
ZOO403	Biodiversity	3
ZOO404	Biology of Reproduction	3
ZOO405	Avian Biology	3
ZOO406	Application of Animal Biotechnology	2
ZOO407	Biochemical Techniques	2
ZOO408	Evolutionary Biology*	2
ZOO409	Nutritional Biochemistry*	2
ZOO410	Medical Entomology*	2
ZOO411	Field work	2
ZOO412	Dissertation	8
Z00407 Z00408 Z00409 Z00410 Z00411	Application of Animal Biotechnology Biochemical Techniques Evolutionary Biology* Nutritional Biochemistry* Medical Entomology* Field work Dissertation	2 2 2 2 2 2 2

*Inter disciplinary course

Field work is a compulsory course. Student has to undertake Field Work in the $1^{st} \& 2^{nd}$ semesters. Dissertation being optional to be conducted during 3^{rd} and 4^{th} semesters. These courses will be evaluated at the end of 4^{th} semester.

Students can opt 20 credit courses from other departments / recognised Institution during $3^{rd}/4^{th}$ semester.

M. Phil Program:

SEMESTER – I

Paper 1 - Research Methodology (compulsory) Paper 2 & 3: Optional Courses: A student has to take only two such courses from the following:

Advanced Genetic Toxicology Fish and Fisheries Membrane Biochemistry and Nutritional Biochemistry Tissue Culture

Zooplankatology Medical Entomology Contact hours for each course is 60 hrs.

SEMESTER – II Paper 4: Dissertation

PG Diploma in Clinical Genetics and Medical Laboratory Techniques programme:

Semester I	
DLTC01	Clinical Genetics I
DLTC02	Clinical Biochemistry
DLTC03	Clinical Microbiology (General and Systematics)
DLTC04	Clinical Pathology & Histology
Semester II	
DLTO01	Clinical Genetics II
DLTO02	Clinical Biochemistry II
DLTO03	Clinical Parasitology, Mycology & Virology
DLTO04	Hematology & Transfusion Medicine
Semester III	
Hands on Training	

FACULTY OF COMMERCE AND MANAGEMENT STUDIES

Dean: Prof. K.B. Subhash

Department of Commerce	Programmes Offered	Intake	Fees (Rs.)
Established: 1988	M. Com.	60	5630.00
Code: CO	MBA (FS)	60	108265.00
	M. Phil.		11235.00
	Ph. D.		11025.00

The thrust areas of the Department are Accounting and Finance, Financial Services, Entrepreneurship Studies, Tourism and Hotel Management Studies. The Department has established good contacts with the Industry and Business enterprises in and outside Goa for Corporate internship and placement services for M.Com and MBA (FS) students. The broad objectives of MBA (FS) programme include creation and development of conceptual, managerial and operational skills of managers for the financial services industry.

Head of Department: Anjana, Raju,

List of Faculty & Specialisation

Professors

Ramesh B, Ph. D. (Sri Krishna Devaraya University) (Accounting and Finance, Capital Market Studies).

Reddy, Y. V, Ph. D. (Osmania University) (Accounting and Finance, Capital Market Studies) (on lien).

Anjana R., Ph. D. (Goa University) (Accounting & Finance, Capital Market Studies).

Subhash, K. B., Ph. D. (Calicut University) (Quantitative Techniques, Entrepreneurship, Strategic Management, Materials Management).

Assistant Professors

Padyala, S., Ph.D., (Osmania University) (Accounting, Finance, Security Analysis and Portfolio Management)

Pournima Dhume, Ph.D. (Goa University) (Capital Markets, Security Analysis and Portfolio Management, Direct and Indirect Taxes, Retail Marketing)

Pournima B.G., Ph.D. (Goa University), M.Phil (Sri Venkateswara University) (Accounting & Finance, Quantitative Techniques, Econometrics, Risk Management)

Pushpender Kumar, Ph.D. (Aligarh Muslim University) (Accounting & Finance, Cost Management)

Priyanka Naik, M.Com (Goa University) (Accounting and Finance).

M.Com Programme (Choice Based Credit System)

	Compulsory Course	No. of Credits
COC101	Advanced Financial Management	4
COC102	Research Methodology and Statistical Analysis	4
COC103	Managerial Accounting	4
COC104	Capital Markets	4
COC105	Business Policy and Strategic Management	4
COC201	Corporate Accounting	4
COC202	Organizational Behaviour	4
COC203	Marketing Management	4
COC204	Security Analysis and Portfolio Management	4
COC205	Business Statistics and Econometrics for Managers	4

Specialization courses

- The students are required to opt for 5 **Papers during the Third semester** and 5 **Papers during the Fourth Semester** from one of the two specializations.
- The dissertation is optional. if the students choose to do dissertation, students are required to opt any **4 Papers during the Third semester and any 4 Papers during the Fourth Semester**

Accounting & Finance		No. of Credits
COO3A1	Corporate Tax Planning and Management	4
COO3A2	Cost Management and Control	4
COO3A3	Financial Services	4
COO3A4	International Business	4
COO3A5	Banking Operations and Management	4
COO4A1	Indirect Taxes	4
COO4A2	Derivatives Market	4
COO4A3	International Financial Management	4
COO4A4	Management of Financial Services	4
COO4A5	Insurance Management	4

Business Management		No. of Credits
COO3B1	Retail Marketing	4
COO3B2	Human Resource Development	4
COO3B3	Advertising and Sales Management	4
COO3B4	Materials Management	4
COO3B5	Business Environment and Policy	4
COO4B1	Entrepreneurship Development	4
COO4B2	Tourism and Travel Management	4
COO4B3	Services Marketing	4
COO4B4	International Trade and Environment	4
COO4B5	Business Ethics and Corporate Governance	4

Field Based C	Optional Courses	No. of Credits
COO4D	Dissertation	8

Semester I		No. of Credits
FSC101	Accounting for Management	4
FSC102	Research Methodology and Statistical Analysis	4
FSC103	Financial Management	4
FSC104	Security Analysis	4
FSC105	Financial Services - I	4
FSC106	Stock Market Operations	4
FSC201	Business Statistics and Econometrics for Managers	4
FSC202	Portfolio Management	4
FSC203	Financial Services - II	4
FSC204	Treasury and Forex Management	4
FSC205	Derivatives Market	4
FSC206	Financial Risk Management	4
Specialization Co	urses	
FSO301	Corporate Restructuring	4
FSO302	Advanced Econometrics for Finance	4
FSO303	Venture Capital and Private Equity	4
FSO304	Organizational Behaviour	4
FSO305	Corporate Governance and Social Responsibility	4
FSO306	Marketing of Financial Services	4
FSO307	Infrastructure and Real Estate Finance	4
FSO308	Business Analytics	4
FSO309	Tax Planning and Management	4
FSO310	Commodity Markets	4
FSO311	Managerial Skills	4
FSO312	Insurance Management	4
FSO313	Advanced IT Applications for Business	4
FSC314	Summer Training Report	8

MBA (Financial Services) Course Structure

Field Based Compulsory Courses

FSC401	Corporate Internship	8
FSC402	Dissertation	12

Department of Management	Programmes Offered	Intake	Fees (Rs.)
Studies	MBA	60	108265.00
	Integrated MBA	30	72800.00
	M. Phil.		11235.00
	Ph.D.		11025.00

The Department provides education to prepare students for a career in management. The Department is also involved in creating and disseminating knowledge on management through research and consulting in the services and manufacturing sectors.

Admission: The admission to MBA is based on CMAT conducted by AICTE, and work experience, group discussions and personal interview.

Head of Department: Hegde Desai P.,

List of Faculty & Specialisation:

Professor Mekoth, N, Ph.D. (Calicut University) (Marketing, Finance)

Associate Professors Dayanand, M. S, Ph.D. (Goa University) (Marketing & Tourism Management)

Hegde Desai, P, A.C.A., Ph. D. (Goa University) (Finance, Marketing)

Borde, N, Ph.D. (Goa University) (Finance).

Assistant Professors Nirmala, R, Ph.D. (Andhra University) (Marketing, Human Resources) D'Souza, E, M. Sc. (T.H.M.) (Hospitality Management)<u>(On Contract)</u> D'Souza, K. S, (M.A.T.M.) (Hospitality) <u>(On Contract)</u> Albino T., (M.Sc.HM) (Hotel Management) (On contract) Tahira De Sa., MBA (Financial Services)

Major Facilities/Features:

Case Study methods of Harvard/IIM type, Formal credit courses in soft skills/contemporary issues, 100% continuous assessment, Well placed alumni help with placement, On line journal database, On line industry and company database, On line interactions through course management software, Regular interactions with executives, Industry internships, Mock interviews by executives, Faculty including visiting faculty with IIM/industry background, Exchange program with Germany, Wireless connectivity for laptops, Opportunity to opt for courses from other disciplines, Internet, audiovisual facilities and Book Bank.

MBA Programme Scheme of Instruction (Semester System) (Choice Based Credit System)

TERM I

Subject	Credits
IT Skills and MIS	04
Production Operations Management(OR)	04
Interview facing skills and Mock Interview	02
Economics	04
CCA	02
Communication Skills	04
Oral + Written+GD+Presentation	
Legal Aspects of Business	02
Optional Non Business Course 1 Foreign Language	04
TOTAL	26

TERM II

Subject	Credits
Marketing Management	04
Finance Management	04
Management Process and Organisational	04
Behaviour	
Strategic Management	04
Business Research Methods	04
HR Management	04
Optional Non Business Course 2 Foreign Language	02
TOTAL	26

SUMMER INTERNSHIP

Summer Internship	April to June
Internship Report 6 Credits, Seminars 2 Credits	08 Credits
TOTAL TERM II	34

TERM III Optional Business Courses

Courses	Offered
Finance	24
Marketing	24
Human Resource	24
Tourism	24
General Management	04

To be completed by students – 28 Credits

TERM IV FINAL INTERNSHIP

From December to March

Final Internship Report 12 Credits and Final internship Seminars 4 Credits.

TOTAL CREDITS (26+34+28+16)

Courses and their allocation across terms are subject to change.

Functional electives (such as finance, marketing, human resources, operations and systems) and industry electives (such as hospitality and tourism, IT enabled services) shall be offered within the constraints of students' demand and the resources available with the department from time to time.

Integrated MBA (Hospitality, Travel and Tourism)

Given the potential for interesting and rewarding careers in the tourism industry many young people are looking for suitable programmes which will help prepare them for careers in management within the tourism and hospitality industries. Keeping in mind the resources, the demand and the contextual necessity in relation to the Hospitality Travel and Tourism Industry, Goa University has started a 5 year integrated MBA- Hospitality, Travel and Tourism program with an option to exit after BBA, from July 2011.

Eligibility: A pass in the XIIth standard **Selection Process:** Admission for the **30** seats based on **UGAT results.**

Information Technology

Soft Skills Training would also include subjects such as communicating in any Indian Language such as Hindi, Marathi, Konkani, etc. or in any Foreign Language such as English, French, German, Portuguese, etc.

Optional Non Business Course (ONBC) from already approved subjects under Humanities, Social Sciences and Science & Technology including Indian History, Understanding Indian Society, Indian Heritage, History of Goa, Cultural History of Goa, Tourism Geography, etc. These courses are level 1 courses and carry twice the weightage in credits as compared to Level 0 Courses at the UG level.

TERM 1			
Subject	No. of Credits		
F & B Service Theory 1	04		
Food Production Theory 1	04		
Front Office Operations 1	04		
Front Office Practical 1	02		
Oral Communication Skills (Soft Skills 1)	02		
Tourism Products of India (OBC 1)	02		
Appreciation and Understanding of Theatre (ONBC 1)	04		

TERM 2

Subject	No. of Credits		
F & B Service Practical 1	04		
Food Production Practical 1	04		
Accommodation Operations Practical 1	02		
Written Communication Skills (Soft Skills 2)	02		
Management Process (OBC 2)	02		
Financial Statement Analysis (OBC 3)	02		
Food Science and Nutrition (OBC 4)	02		
Hygiene and Sanitation (ONBC 2)	02		
Character Development (ONBC 3)	04		
Internship			

TERM 3

Subject	No. of Credits			
F & B Service Theory 2	04			
Food Production Theory 2	04			
Accommodation Operations Theory 1	04			
Presentation Skills (Soft Skills 3)	01			
Etiquettes (Soft Skills 4)	01			
Human Resources Management 1 (OBC 5)	02			
IT Skills (OBC 6)	02			
Tourist & Tourism (OBC 7)	02			
Literature Appreciation (ONBC 4)	02			
Psychological Well-Being (ONBC 5)	02			

TERM 4

Subject	No. of Credits		
F & B Service Practical 2	02		
Food Production Practical 2	04		
Tourism Concepts	04		
Public Speaking (Soft Skills 5)	02		
Diet Meal Planning (ONBC 6)	02		
Internship			

TERM 5

Subject	No. of Credits		
F & B Service Theory 3	04		
F & B Service Practical 3	02		
Negotiation Skills (Soft Skills 6)	01		
Time Management (Soft Skills 7)	01		
Marketing Management (OBC 8)	04		
Tourism Industry (OBC 9)	02		
Case Writing & Analysis (OBC 10)	02		
Human Resource Management (OBC 11)	02		
Creative Writing (ONBC 7)	02		
Cultural Heritage of Goa (ONBC 8)	02		

TERM 6

Subject	No. of Credits
Interview Facing Skills (Soft Skills 8)	02
Organisational Behaviour (OBC 12)	04
Comprehensive Case Analysis (OBC 13)	02
General Psychology (ONBC 9)	02
Film Appreciation (ONBC 10)	02
Internship	

TERM 7

Subject	No. of Credits		
F & B Management	04		
Front Office Operations 2	04		
Food Production Theory 3	04		
Accommodations Operations 2	04		
Marketing of Hospitality & Tourism	02		

Travel Agency Management	02		
Emotional Intelligence (Soft Skills 9)	02		
Team Building (Soft Skills 10)	02		
Personality Dynamics (ONBC 11)	02		
Health Literacy (ONBC 12)	02		

TERM 8

Subject	No. of Credits			
Bakery	04			
Food Production Practical 3	04			
Front Office Management	02			
Strategic Management	04			
Entrepreneurship	02			
Economics of Tourism	04			
Mock Interviews by Executives (Soft Skills 11)	02			
Introduction to Journalism (ONBC 13)	02			

TERM 9

Subject	No. of Credits
Tourism Electives	
Management Electives	

TERM 10

Subject	No. of Credits
Internship	

	Core Business	Core Soft Skill	Elective Business	Non Business	Internship Report & Seminar	Total Credits
BBA	52	12	30	24	22	140
MBA	40	06	28	06	24	104
IMBA	92	18	58	30	46	244

1. RESEARCH STUDENTSHIP

The University invites applications for Research Studentship from full-time research fellows who are registered for the Ph.D. degree programme in the University teaching departments under various Faculties, and who are not in receipt of any other scholarship/studentship, etc. The applications in the prescribed form which is available in the respective Department should be submitted along with certified copies of the required certificates, duly recommended by the Guide and the Head of the Department to the Academic PG Section. The last date to receive applications will be notified separately.

Conditions for the award of Research Studentship:

- 1. Full time research scholar should have at least second class at the graduation level and obtained Master's degree by papers securing a minimum of 55% or equivalent grade, and or by research from Goa University, or from any other University recognized by Goa University, and whose Ph.D. registration has been confirmed.
- 2. Research Scholars whose Ph.D. registration is likely to be confirmed by December 2017 can also apply and applications of such candidates have to be recommended by their respective guide.
- 3. Full time research scholars holding any other scholarship are not eligible to apply.
- 4. A latest copy of the email letter of confirmation or continuation of registration certified by the guide that performance is satisfactory should be submitted.
- 5. In case the six monthly reports are not satisfactory, research studentship is likely to be terminated.
- 6. Declaration from the candidates that they are not employed should be submitted after the issue of sanction order.
- 7. Applications will be screened by the University Research Committee and their decision will be final.
- 8. The research scholar has to sign the muster roll which will be available in the respective Department, every day twice, in the morning and in the evening.
- 9. Ordinarily the fellowship shall be for a period of two years from the date of its award. Research scholars should not have put in more than eight terms on the date of application. However, the fellowship may be continued for the 3rd year on recommendation of the Committee to the Vice-Chancellor for approval subject to the following conditions:

i) There is significant progress made by the student in the completion of Ph.D. research work.

ii) The research scholar has published paper involving his/her work in journal with the impact factor.

- 10. Candidates are required to apply for continuation of the fellowship during the second year which will be on the basis of recommendation of guiding teacher and the certification of the HOD regarding attendance of the candidate and research work done by him.
- 11. Scholars selected for University research studentship will be entitled for 30 days leave in an academic year. Leave beyond 30 days will be without scholarship.
- 12. Research scholar is required to return the fellowship amount paid to him/her to the University, in case the Ph.D. course of study is terminated without completion. Research scholar shall be required to submit undertaking that he/she shall complete the course, failing which the amount paid to him/her shall be refunded to the University.

2. MERIT SCHOLARSHIPS/FREE STUDENTSHIPS

Applications will be invited from post-graduate students of this University for the award of Merit Scholarships/Free Studentships for the current academic year in the prescribed form which will be available in the Academic (PG). Applications completed in all respects should reach the Academic (PG) of this University on or before the prescribed date. The last date to receive applications will be notified separately.

Conditions for the award of Merit Scholarship/Free Studentship are as under:

I. Merit Scholarship:

The candidates should have secured at least 55% of the aggregate marks in Arts, Commerce and Management Studies subjects and at least 60% of the aggregate marks in Science subjects

including Mathematics, at the qualifying examination.

II. Free-Studentships:

- a. The applicant should belong to the income group as per the specified rules.
- b. The candidate should have secured at least 45% of the aggregate marks in Arts & Commerce and Management Studies subjects and 50% of the aggregate marks in the science subjects, including, Mathematics at the last qualifying examination.
- c. The beneficiary of any other Govt. Scholarship is, however, not entitled for a free studentship award. Candidates should note that the Merit Scholarship/Free Studentship will be withdrawn if it is found from the records that they do not fulfill the conditions of at least 75% attendance at the lectures and practical, whenever prescribed.

3. Educational Loan Scheme: Educational Loan Scheme of Goa State Scheduled Castes and Other Backward Classes Finance and Development Corporation Ltd. (a Govt. of Goa undertaking), 4th floor, Patto Centre, Panaji, Goa is available for the needy students from the scheduled castes, other backward classes and handicapped categories. Students who fulfill the eligibility conditions may apply for educational loan under the scheme.

4. Foreign Students: Foreign students desiring to take admission in Goa University and colleges affiliated to this University are required to apply through the Ministry of Human Resources Development, Department of Education, Govt. of India, New Delhi. A certain percentage of seats are especially reserved for foreign students at Goa University. Foreign students may also contact the Foreign Students Advisor, Goa University.

As per the student Visa policy introduced by the Government of India w.e.f. 23 July 1992, the Government will grant regular Visa only to prospective college students who have firm letters of admission from Indian Universities/recognised Colleges/Educational Institutions. The recognised institutions would be those included in the list issued by the Association of Indian Universities, UGC and Ministry of Health (Medical Council of India).

Foreign students who do not have such firm letter would be given provisional student Visa by the Government of India Missions abroad only on the basis of production of provisional admission certificate issued by such recognised Universities and/or affiliated institutions. In both types of student Visa the name of the University and the college where the students have secured admission should be mentioned in the Visa of the foreign students. **The practice of issuing 'X' Entry Visa** to prospective foreign students who do not have firm letters of admission <u>has been discontinued.</u>

No admission to foreign students is granted if their passport shows any type of Visa other than students/provisional student Visa. Students having 'X' Entry Visa have to go back to their countries even if they get admission in Indian Universities etc., at the expiry of the initial period of stay allowed in their original Visa. Hence, under no circumstances, a change of purpose of visit to India will be allowed. Nor any change of institution (other than that mentioned in the student's Visa/provisional student's Visa) will be allowed. A foreign student will be permitted to take admission at this University on the basis of a Visa granted to study at this University

Foreign students may contact the Foreign Students' Advisor (Dr. Rahul Tripathi, Department of Political Science, e-mail: rmt@unigoa.ac.in) for necessary guidance.

LIST OF PRIZES AND AWARDS:

The following Awards/Scholarships/Prizes/Medals have been instituted for students securing highest marks in the qualifying examinations of the PG Departments:

1.	Shri Venkatesh Govind Sinai Virginkar Prize	M.A. French
1. 2.	Prof. G. D. Parikh Memorial Scholarship	M.A. Economics
<u>2</u> . 3.	Dr. P. R. Dubhashi Award	M.A. Economics, Political Science,
э.		Sociology, History, Philosophy
4.	EDC Gold Medal	MBA
5.	Prof. D. B. Wagh & Hira Wagh Fund	M.Sc. Mathematics or Physics
6.	Francisco Correia Afonso Memorial Prize	M.A. English
7.	Late Smt. Rukminibai & Late Baburao Wader Memorial Prizes	M. A. Marathi
8.	Dr. V. V. R. Varada Chari Gold Medal	M.Sc. Marine Science (Specialization in Oceanography)
9.	Late Dr. Leo Mackensen Barros Gold Medal	M.Sc. Marine Biotechnology
10.	Shri Megha Shyam Parshuram Deshprabhu Parithoshik	M.A. Portuguese, M.A. French or M.A. History
11.	Dr. Vithal R. Mitragotri Memorial Prize	M.A. History
12.	Jindal Jubilee Gold Medal	M.Com.
13.	Xth Indian Council of Chemistry Conference	M.Sc. Inorganic, Organic & Physical Chemistry (1 each)
14.	Late Dr. G. V. Kamat Helekar Prize	M.A. Economics
15.	Late Miss Kavita Devraj Anand Prize	M.Com.
16.	Prof. F. B. Antao Gold Medal	M.Sc. Geology
17.	Shri. Prabhakar Shejwadkar Gold Medal	M.A. Hindi
18.	Rotary Club of Panaji Scholarship	MCA
19.	Uttaranchal Sanskritik Mandal Goa Scholarship	M.A. Hindi
20.	Prof. S. K. Paknikar Research and Educational Trust Prize	M.Sc. Organic Chemistry
21.	Coca-Cola Gold Medal	M.Com. and M.Sc. Chemistry (one each)
22.	Coca-Cola Cash Prize	M.Com. and M.Sc. Chemistry (one each)
23.	Late Shri Dilip Kumar Rayu Prabhu Mahambre Gold Medal (4 Medals)	M.Sc Botany; M.A Economics; M.A. – Konkani ; M.A Philosophy/ Political Science/ Sociology by rotation
24.	Department of Zoology Gold Medal	M.Sc. Zoology
25.	IV SERC School in Physics Gold Medal	M.Sc. (Physics & Electronics)
	Prof. Daleep Singh Research Scholarship	Ph.D. in Economics on a topic relating to a former Portuguese Colony in Africa, particularly Angola and Mozambique.
27.	Prof. N.C. "Nigam Memorial Gold Medal"	M.Sc. Microbiology
28.	Late Shri. Janardan Gopal Thaly Memorial Gold Medal	M.B.A. (Financial Services)
29.	Late Smt. Laxmi Narayan Shet Narvekar Prize	B.Sc. (Amongst students admitted to M.Sc. Mathematics at Goa University)

30.	Tasneem Fazal Gold Medal and cash prize	Lady student topper in B.Sc. from GU taking admission in M.Sc. (Physics)
31.	Francis Simon Cabral Gold Medal	M.Sc. Chemistry
32.	Satyajit Kerkar Gold Medal	M.Sc. Marine Biotechnology
33.	CSI, Goa Chapter - Gold Medal	M.C.A.
34.	Yeshwant Govind Kamat Prize	B. Sc. Mathematics of Goa University student enrolled for M. Sc. Maths in Goa University
35.	Finalists Do Setima Ano Do Liceu – 1957 Gold Medal	M. A. Portuguese, M. Sc. Mathematics
36.	Dr. Wilfred De Souza Gold Medal	M. S. (Surgery)
37.	Shrimati Malati Chauhan & Shri Shivdayal Singh Chauhan Memorial Gold Medal	MBA
38.	C. X. Furtado Gold Medal	M.Sc. Advanced Ecology at M.Sc. Botany OR Evolutionary Biology at M.Sc. Zoology
39.	Late Shri Anant Ramkrishna S. Dhume Gold Medal	M. A. History
40.	Zoology Department Prize for Ph.D Research paper	Ph.D. Zoology
41.	Fr. Victor Joao Gualberto Anes and Arnaldo Tome Berta Epifanio Anes Prize	Topper in M.A. English, M.A. Sociology, M.Sc. Mathematics & M.Com. in Accounting & Finance
42.	Dr. Harishchandra T. Nagvenkar Prize	Topper in M.A. Konkani
43.	Late Adv. Lakshmikant V.S. Talaulikar Prize	Topper in M.A. Konkani
44.	Late Professor Dattaram Anant Ambiye sponsored "Sant Sohirobanath Ambiye Prize"	Topper in M.A. Marathi

Note: More details about the qualifications for the award of the above prizes/awards may be obtained from the Academic (PG) Section of Goa University.

Sr. No	Name of College / Institution	Full Address of the	Name of Principal/ Director	Contact Number and E-mail	Programmes Offered
NU	institution	College / Institution	Director	ID'S of College & Head of the Institute	
1.	Parvatibai Chowgule College of Arts & Science,	Fatorda, Margao, Goa-403602	Dr. N.N. Sawant	College contact No.: 2722222 College Email ID: principal@chowgules.ac.in Principal's contact No.: 2722222, Principal's Email ID: nns001@chowgules.ac.in	Grant-in-aid Programs 1) Under Graduate B.A. B.Sc. 2) Post Graduate Diploma Post Graduate Diploma in Computer Applications Self-financed programs 1) Under Graduate T.Y.B.A. – Sociology T.Y.B.A. – Psychology B.Sc. – Biotechnology T.Y.B.Sc. – Geography B.Sc Biotechnology T.Y.B.Sc. – Geography B.Sc Biotechnology T.Y.B.Sc. – Geography B.Sc Biotechnology M.A. – Ceography M.A. – Geography M.A. – Child Psychology & Development M.Sc. Information Technology M.Sc. Analytical Chemistry 3) Post Graduate Diploma Post Graduate Diploma Post Graduate Diploma Post Graduate Diploma in Geoinformatics Post Graduate Diploma in Clinical Genetics & Medical Laboratory Techniques 4) Research Centre Geography Hindi Botany
2.	Dempo Charities Trust Dhempe College of Arts & Science	P.O.Box No.222, Miramar, Panaji, Goa – 403 001	Dr.(Mrs) Vrinda P.S. Borker	College contact No.: 2462376, 2461507, (Fax)2462315 College Email ID: dhempe@rediffmail.com Principal's contact No.: 9822129669 Principal@dhempecollege.e du.in	Grant-in-aid Programs B.A./B.Sc. B. A Konkani/ Marathi/ Hindi/ English/ Economics/ Political Science/ History/ Philosophy/ Psychology B. Sc. in Chemistry/ Botany/ Physics/ Geology/ Zoology/ Computer Science/ Mathematics Self-financed Programs B.Sc. Biotechnology
3.	Carmel College of Arts, Science & Commerce for Women	Nuvem, Salcete, Goa-403 604	Dr.(Sr) M. Aradhana A.C.	College contact No.:2790714, 2790190College Email ID:carmelcollege64@gmail.comPrincipal's contact No.:9960917301, 2790959Principal's Email ID:acaradhana@yahoo.co.uk	Grant-in-aid Programs B.A/B.Sc/B.Com. B.A.in Psychology, History, Political Science, Economics, Konkani, English B.Sc. in Biotechnology, Electronics, Chemistry, Botany, Zoology, Physics Self-financed Programs M.A.(Counselling Psychology), M. Com.
4.	Ponda Education Society's Ravi S. Naik College of Arts & Science	P.O.Box No.3, Farmagudi, Ponda, Goa-403 401	Dr. Vikas J. Pissurlekar	College contact No.: 2335171, 2335296 College Email ID: pessrsncol@gmail.com	Grant-in-aid Programs B.A./B.Sc. B.A. in Economics(3 & 6 units), Political Science(3 & 6 units),

LIST OF AFFILIATED COLLEGES, RESEARCH CENTRES AND RECOGNISED INSTITUTIONS

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				Principal's contact No.: 2335171 Principal's Email ID: pessrsncol@gmail.com	Philosophy (3 units), Psychology(3 units), Hindi (3 units), Marathi(3 & 6 units), Konkani(3 & 6 units), History (3 & 6 units) B. Sc. in Physics(3 & 6 units), Chemistry (3 & 6 units), Mathematics (3 & 6 units) Botany(6 units), Zoology(6 units), Industrial Chemistry(3 units), Microbiology (6 units) <u>Self-financed programs</u> M.Sc. Organic Chemistry
5.	St. Xaviers College of Arts, Science & Commerce	P.O. Box No. 32, Mapusa, Bardez, Goa-403507	Fr.(Dr.) Jeronimo D'Silva (Offg.)	College contact No.: 2262356(Fax), 2263031, 2250705 College Email ID: xavierscollege@bsnl.in Principal's contact No.: 9822152294 Principal's Email ID: xavierscollege@bsnl.in	Grant-in-aid Programs B.A /B.Sc. /B.Com/ B.A.in International Studies/ B.A. in English/ Hindi/ Marathi/ Konkani/ Mass Communication & Videography/ Psychology/ / B.Sc.in Mathematics/ Microbiology/ Physics/ Botany/ Computer Science/ Electronics/ Chemistry Self-financed Programs B.A. (Mass Communication)/ B.A. (Journalism)/ B.Sc. Biotechnology B.C.A./ B.B.A./ B.B.A.(Travel & Tourism/ M.Com/ M.A.(Psychology)/ M.Sc. Physical Chemistry
6.	Dnyanprassarak Mandal's College of Arts, Sou. Sheela Premanand Vaidya College of Science & V.N.S. Bandekar College of Commerce and Research Centre	Assagao, Bardez- Goa-403 507.	Dr. D.B. Arolkar	<u>College contact No.:</u> 2268488, 2268683 <u>College Email ID:</u> info@dmscollege.ac.in <u>Principal's contact No.:</u> 2268683, 9422393340 <u>Principal's Email ID:</u> dbarolkar@rediffmail.com	Grant-in-aid Programs B.A. in English/ Economy/ History (3 units) B. Sc in Chemistry/ Electronics/ Computer Science (3 units) Self-financed Programs B.B.A/ B.C.A/ M. Com/ M.Sc.(Pharmaceutical Chemistry) Research Centre Commerce Chemistry
7.	Govt. of Goa, Government College of Arts, Science & Commerce	Near Govt. Hospital, Gokulwadi, Sanquelim, Goa-403505.	Dr. Joydeep Bhattacharjee (Offg. Principal)	College contact No.: 2364271, (Fax) 2421734 College Email ID: gcascs@gmail.com Principal's contact No.: 2365862 Principal's Email ID: joydeep2@gmail.com	Grant-in-aid Programs B.A. – English, Marathi, Konkani, Hindi, History, Geography, Political Science, Economics B.Com B.Sc. – Biotechnology, Chemistry, Computer Science, Zoology, Physics, Botany, Geology, Mathematics
8.	Govt. of Goa, Government College of Arts, Science & Commerce	Xeldem, Quepem, Goa – 403705.	Shri Bhaskar G. Nayak	College contact No.: 2662342, 2664239 College Email ID: gcascq@rediffmail.com Principal's contact No.: 9822586616 Principal's Email ID: bhaskarnayak1@rediffmail.c om	Grant-in-aid Programs B.A./B.Sc./B.Com./M.Com/ Research Centre Commerce History Marathi

9.	Govt. of Goa Government College of Arts, Science & Commerce Goa Salesian Society's Don Bosco College	Khandola, Marcela, Goa-403 107. M.G. Road, Near Municipal Market, Altinho, Panaji, Goa-403 001	Dr. Jivexa Bhattacharjee (Offg.) Mr. Cedric Silveira (Offg.)	College contact No.:2287718College Email ID:gcasck@rediffmail.comPrincipal's contact No.:2288369, 9422440970Principal's Email ID:jivexa@gmail.comCollege contact No.:6644321College Email ID:donboscogoa@rediffmail.comPrincipal's contact No.:	Grant-in-aid Programs B.A./B.Sc./B.Com./ B.Sc. in Microbiology, Computer Science Science Self-financed Programs Bachelor of Computer Applications (B.C.A) Bachelor of Physical Education(B.P. Ed) Bachelor of Social Work (B.S.W.)
11.	Zantye Brothers Educational Foundation's Narayan Zantye College of Commerce	Industrial Estate, Vathadev, Sarvan, Bicholim, Goa-403 529.	Shri Rajesh Amonkar (Offg. Principal)	9823756005 Principal's Email ID: cedricsilveira@yahoo.com College contact No.: 2361377, 2363769 College Email ID: zantyeedu@rediffmail.com Principal's contact No.: 98236187272 Principal's Email ID: asmnad3@rediffmail.com,	B.B.A./ B.B.A(Travel & Tourism) Bachelor of Arts in Mass Media Master of Social Work(M.S.W.) Grant-in-aid Programs B.Com. Self-financed Program M.Com Research Centre Commerce
12.	Murgaon Education Society's College of Arts & Commerce	Zuarinagar, Goa-403726	Dr. R.B. Patil	principalnzcc@gmail.com College contact No.: 2555772, (fax) 2556010 College Email ID: mescollege1@gmail.com, mescollege1@rediffmail.co m Principal's contact No.: 2555772, 9921346559 Principal's Email ID: revagoudap@rediffmail.com	Grant-in-aid Programs B.A/B.Com/ Self-financed Program B.C.A./ B.B.A./ B.B.A Shipping & Logistics/ M.Com Research Centre Economics Sociology
13.	Sant Sohirobanath Ambiye Govt. College of Arts & Commerce	Virnoda, Pernem, Goa-403512	Dr. Gervasio S.F.L. Mendes (Acting Principal)	College contact No.: 2201210, (Fax) 2201762 College Email ID: gcacpg@yahoo.co.in Principal's contact No.: 9421094271 Principal's Email ID: gervasiom83@gmail.com, gervasiomendes@rediffmail. com	<u>Grant-in-aid Programs</u> B.A./B.Com.
14.	Diocesan Society of Education's Rosary College of Commerce & Arts	Navelim, Salcete, Goa-403707	Rev. Dr. Simao R. Diniz	College contact No.: 2701564 College Email ID: rosarycollege.1990@gmail.c om Principal's contact No.: 2736864, 9822124121 Principal's Email ID: frsimon.diniz@gmail.com	Grant-in-aid Programs B.Com./B.A. Self-financed Programs B.C.A./ B.B.A./ B.B.A.(Travel & Tourism/ M. Com. Research Centre Economics
15.	Fr. Agnel College of Arts & Commerce	Pilar, Goa-403203	Fr. Fredrick Rodrigues (Offg.)	College contact No.: 2218673, 2219833 College Email ID: fragnelcol@rediffmail.com contactus@fragnelcollege.e du.in Principal's contact No.: 2219833, 9822177441 Principal's Email ID: fredrod1964@gmail.com	Grant-in-aid Programs B.Com./B.A. Self-financed Program B.C.A. <u>Research Centre</u> Commerce

16	Curacilim Educational	(Chri Die F	Dr. Covita C. Nadkarni		Creat in aid Programs
16.	Cuncolim Educational Society's College of Arts	'Shri Pio F. Lawrence Complex'	Dr. Savita S. Nadkarni (Offg.)	College contact No.: 2865210(Phone & Fax)	<u>Grant-in-aid Programs</u> B.A./B.Com.
	& Commerce	Cuncolim, Salcete, Goa-403703	(Olig.)	College Email ID: cescac21@yahoo.co.in Principal's contact No.: 2865210, 9881662304 Principal's Email ID: savitanadkarni1@gmail.com	B.A./ B.Com.
17.	Dnyan Prabodhini Mandal's Shree Mallikarjun College of Arts & Commerce	Delem, Canacona, Goa-403702	Dr. F.M. Nadaf	College contact No.: 2633433, 2633422 College Email ID: shreemallikarjuncollege@g mail.com Principal's contact No.: 9765459914 Principal's Email ID: fmnadaf@rediffmail.com	<u>Grant-in-aid Programs</u> B.A./B.Com.
18.	Dempo Charities Trust's S.S. Dempo College of Commerce & Economics	Cujira Integrated Educational Complex, Opp. Goa Medical College, Cujira, St. Cruz, Ilhas, Goa – 403 005	Dr. Radhika S. Nayak	College contact No.: 2976646, (Fax) 2976648 College Email ID: office@dempocollege.edu.in Principal's contact No.: 9422439876, 2976647 Principal's Email ID: principal@dempocollege.ed u.in	Grant-in-aid Program B.Com Self-financed Programs BBA/ PGDBA –Event Management/ M.Com / M.A. Tourism & Heritage Management. Research Centre in Economics
19.	Vidya Vikas Mandal's Shree Damodar College of Commerce & Economics	Shree Damodar Educational Campus, G.R. Kare Road, Tansor, Comba, Margao, Goa-403 601	Dr. Prita Mallya	College contact No.: 2714224, (Fax) 2732084 College Email ID: principal.sdcc@vvm.edu.in Principal's contact No.: 2714224, Principal's Email ID: prita.mallya@vvm.edu.in	Grant-in-aid Program B.Com. Self-financed Programs B.C.A./ B.B.A.(FS)/ M.Com/ Research Centre Commerce Management Economics
20.	Goa Vidyaprsarak Mandal's Gopal Govind Poy Raiturcar College of Commerce and Economics	Post Box No. 102, Farmagudi, Ponda, Goa-403401	Shri. Pravin M. Bhende	College contact No.: 2335875 College Email ID: gvmcce@yahoo.in Principal contact No.: 2335875, 9822127625 Principal's Email ID:	<u>Grant-in-aid Program</u> B.Com <u>Self-financed Programs</u> B.C.A./ M.Com
21.	Saraswat Vidyalaya's Sridora Caculo College of Commerce & Management Studies	Telang Nagar Khorlim, Mapusa, Goa-403 507	Dr. Santosh B. Patkar	pmbhende@gmail.com College contact No.: 2254478, (Fax) 2250208 College Email ID: caculocollege@gmail.com Principal contact No.: 2250042, 9421157379 Principal's Email ID: patkar_santosh@rediffmail. com	<u>Grant-in-aid Program</u> B.Com <u>Self-financed Programs</u> BBA/BCA
22.	Vrundavan Institute of Nursing Education	Near Binani Glass Fibre Pvt. Ltd., Mushir Wado, Colvale, Bardez- Goa-403 513.	Prof. J. Sivakami	College contact No.: 9225988570 College Email ID: vinegoa@yahoo.co.in Principal's contact No.: 8411983279 Principal's Email ID: Sivakamejaya7@gmail.com	Self-financed Program B.Sc. Nursing
23.	Institute of Nursing Education	Bambolim, Goa-403202	Mrs. Carol Noronha	College contact No.: 2458191, 2459727 College Email ID:	Grant-in-aid Programs B.Sc. Nursing M.Sc. Nursing

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24.	Shivgram Education Society's Shri Kamaxidevi Homoeopathic Medical College & Hospital	ʻShiv Shail', Karai, Shiroda, Goa 403 103.	Dr. S.D. Naik	principal-ine.goa@nic.in Principal's contact No.: 2459727 Principal's Email ID: principal-ine.goa@nic.in College contact No.: 2306842, 2307441, 2307442 College Email ID: skhmchgoa98@gmail.com Principal's contact No.: 9764264600 Principal's Email ID: drsadnaik01@gmail.com	<u>Self-financed Program</u> Bachelor in Homoeopathic Medicine & Surgery (B.H.M.S)
25.	Bharateeya Sanskriti Prabodhini's Gomantak Ayurveda Mahavidyalaya & Research Centre	Vazem, Shiroda, Goa-403 103.	Dr. Anura Bale	College contact No.: 2306309, (Fax) 2307394 College Email ID: ayurgoa@rediffmail.com Principal's contact No.: 9822589751 Principal's Email ID: baleanura@rediffmail.com	<u>Self-financed Program</u> Bachelor of Ayurvedic Medicine & Surgery (B.A.M.S)
26.	Devi Sharvani Education Society's V.M. Salgaocar College of Law	Caranzalem, Panaji, Goa-403 001.	Dr. M.R.K. Prasad	College contact No.: 2462225 College Email ID: vmscl@rediffmail.com Principal's contact No.: 2462225, 7350198881 Principal's Email ID: prasadmandav@gmail.com	<u>Grant-in-aid Programs</u> B.A. LL.B./ LL.B. <u>Self Financed Programs</u> LL. M. <u>Research Centre</u> Law
27.	Vidya Vikas Mandal's Govind Ramnath Kare College of Law	Shree Damodar Educational Complex, P.O. BoX No. 777, G.R. Kare Road , Tansor, Comba, Margao, Goa-403601	Dr. Saba V.M. Da Silva	College contact No.: 2715510, 2732661 College Email ID: officergrklaw@vvm.edu.in Principal's contact No.: 9422450890, 8275540890 Principal's Email ID: principal.grkcl@vvm.edu.in	Grant in aid programs B.A. LL.B. / LL.B. Self-financed programs LL.M. <u>Research Centre</u> Law
28.	National Institute of Hydrography	C/o Headquarters, Goa Naval Area, Vasco-da-Gama, Goa-403802	Capt. T.P.Mahato (Officer-In-Charge)	College contact No.: 2582800, Fax - 2513419 College Email ID: info-nih.goa@nic.in	<u>Grant-in-aid Programs</u> Post Graduate Certificate in Hydrography Post Graduate Diploma in Hydrography M.Sc. Hydrography
29.	Govt. of Goa Goa College of Music	Dr.T.B. Cunha Educational Complex, Altinho, Panaji, Goa-403 001	Dr. Shashank S. Maktedar (Offg. Principal)	College contact No.: 2232507, (Fax) 2432528 College Email ID: goacollegeofmusic@gmail.c om Principal's contact No.: 2232507 Principal's Email ID: smaktedar@gmail.com	<u>Grant-in-aid Programs</u> BPA MPA (Vocal & Instrumental) MPA (Tabla)
30.	Govt. of Goa, Goa College of Art	Altinho, Panaji, Goa-403 001	Shri. Mahesh V. Vengurlekar	College contact No.: 2226104, (Fax) 2242607 College Email ID: goacollegeofart@gmail.com Principal's contact No.: 2226104, Principal's Email ID:	<u>Grant-in-aid Programs</u> B.F.AApplied Art B.F.APainting

				mv.vengurlekar@gmail.com	
31.	Institute of Psychiatry & Human Behaviour	Opp. Shrine of Holy Cross, Bambolim, Goa-403 202.	Dr. Pradeep G. Naik	College contact No.: 2458687 College Email ID: dir-iphb.goa@nic.in Principal's contact No.: 2458687 Principal's Email ID: dr.naik.p@gmail.com	<u>Grant-in-aid Programs</u> M.D. in Psychiatry Diploma in Psychological Medicine
32.	Govt. of Goa, Goa College of Architecture	Dr.T.B. Cunha Educational Complex, Altinho, Panaji, Goa-403001	Prof.(Dr.) Ashish K. Rege	College contact No.: 2436435 College Email ID: gca.archoffice@gmail.com Principal's contact No.: 2227144, 9822486810 Principal's Email ID: prin.architecture@unigoa.ac .in	<u>Grant-in-aid Program</u> Bachelor of Architecture (B. Arch)
33.	Govt. of Goa, Goa College of Home Science	Dayanand Bandodkar Road, Campal, Panaji, Goa-403001	Dr. Mahesh Pai (Offg)	College contact No.: 2227603 College Email ID: principalgchs@rediffmail.co m Principal's contact No.: 2227603, 9822121176 Principal's Email ID: drmaheshpai@gmail.com	<u>Grant-in-aid Programs</u> B.Sc. Home Science
34.	Ponda Education Society's Rajaram & Tarabai Bandekar College of Pharmacy	Farmagudi, Ponda, Goa-403401	Dr .S.N. Mamle Desai	College contact No.: 2335162 College Email ID: principalrtbcop@gmail.com Principal contact No: 2335162, Principal's Email ID: smamledesai@rediffmail.co m	<u>Self-financed Programs</u> B. Pharm M. Pharm
35.	Govt. of Goa, Goa College of Pharmacy	18 th June Road, Panaji, Goa-403 001	Dr. Gopalkrishna Rao	College contact No.: 2226882 College Email ID: principal.gcp.goa@nic.in, gcpprincipal@yahoo.com Principal contact No: 2226883, 9158055530 Principal's Email ID: gkrao.fadnis@nic.in gkfadnis@gmail.com	Grant-in-aid Programs B.Pharm , M.Pharm Quality Assurance Pharmacology Pharmacognosy Research Centre Pharmacy
36.	Govt. of Goa, Goa Dental College & Hospital	Bambolim, Goa-403202	Dr. Anita Spadigam DEAN	College Contact No.: 2459812, 13, 14, 15, (Fax)2459816 College Email ID: dean-gdch.goa@nic.in Principal Contact No.: 2459815, 9822489755 Principal Email ID: dean-gdch.goa@nic.in	<u>Grant-in-aid Programs</u> Bachelor of Dental Surgery (B.D.S.) Masters of Dental Surgery (M.D.S)
37.	Shree Rayeshwar Institute of Engineering & Information Technology	'Shiv Shail" Karai, Shiroda, Goa-403 103.	Prof. (Dr.) Surendra Rahamatkar	College Contact No.: 2307032, 2307001, Principal Contact No.: 2307431, Principal Email ID: principal.ritgoa@gmail.com principal@ritgoa.ac.in	Self-financed Programs 1. B.E. Electronics & Telecommunications Engineering (ETC) 2. B.E. Computer Engineering 3. B.E. Information Technology
				· · · ·	Self-financed Programs

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		Agnel Ashram,		agnelpcce@gmail.com	Telecommunications
		Agnel Ganv, Verna,		Principal contact No:	Engineering (ETC)
		Goa-403 722.		2791267, 9823705395	2. B.E. Computer Engineering
				Principal's Email ID:	3. B.E. Information Technology
				principal@pccegoa.org	4. B.E. Mechanical Engineering
					5. M.E. Information Technology
39.	Govt. of Goa, Goa	"Bhausaheb	Dr. Vinayak N. Shet	College contact No.:	Under Graduate Programs
	College of Engineering	Bandodkar		2336301, 2336303, 2336302	1. B.E. Civil Engineering
		Technical Education		College Email ID:	2. B.E. Electrical & Electronics
		Complex",		acad@gec.ac.in	Engineering
		Farmagudi, Ponda,		Principal contact No:	3. B.E. Mechanical
		Goa-403401		2336301, 2336303, 2336302	Engineering
				Principal's Email ID:	4. B.E. Electronics & Telecom-
				ppl@gec.ac.in	Engineering
					5. B.E. Computer Engineering
					6. B.E. Information
					Technology
					7. B.E. Mining Engineering
					Post Graduate Programs
					1. M.E. Foundation
					Engineering
					2. M.E. Industrial Engineering
					3. M.E. (ETC) Micro
					Electronics Engineering
					4. M.E.(ETC) Electronics
					Communication &
					Instrumentation
					5. M.E. Power & Energy
					Engineering
					6. M.E. Computer Science &
					Engineering
					7. M.E. Industrial Automation
					& Radio Frequency
					Engineering
					8. M.E. Structural Engineering
					Ph.D. Research Centre
					1. Electronics &
					Telecommunications
					Engineering
					2. Electrical & Electronics
					Engineering
					3. Mechanical Engineering
					4. Computer Science and
					Engineering
					5. Civil Engineering
40.	Govt. of Goa	Bambolim,	Dr. Pradeep G. Naik	College contact No.:	Grant-in-aid Programs
	Goa Medical College &	Goa-403202.	Dean	2458727	1. M.B.B.S.
	Hospital			College Email ID:	2. <u>Doctor of Medicine(M.D.)</u>
				dean-gmc.goa@nic.in	a. Physiology
				Principal contact No:	b. Biochemistry
				2458728	c. Pharmacology
				Principal's Email ID:	d. Pathology
				dr.naik.p@gmail.com	e. Microbiology
					f. Forensic Medicine
					g. Preventive & Social
					Medicine
					h. General Medicine
					i. Obstetrics & Gynaecology
					j. Paediatrics
					k. Psychiatry
					I. Anaesthesiology
					m. Radiodiagnosis
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41.	Ponda Education	Ponda Panjim	Dr. Geeta	College contact No.:	 Master of Surgery (M.S.) Anatomy General Surgery Oto Rhino Laryngology Ophthalmology Orthopaedics Master of Chirurgie M.Ch. Neurosurgery Diploma Anaesthesiology(D.A) Forensic Medicine (D.F.M) Public Health (D.P.M.) Child Health (D.C.H) Obstetrics & Gynaecology (D.G.O) Medical Radiodiagnosis (D.M.R.D) Psychological Medicine (D.P.M.) Skin & VD (DVD) Bachelor in Physiotherapy (B.P.T.) Bachelor of Optometry (B.Opt) Bachelor of Occupational Therapy (B.O.T) B.Sc. in Medical Imaging Technology (B.Sc. A.T.)
	Society's College of Education	Highway, Farmagudi, Ponda Goa-403401	Mahadevan Iyer	2335016, (Fax) 2335020 <u>College Email ID:</u> princi_pescoe@yahoo.in <u>Principal's contact No:</u> 2335516, <u>Principal's Email ID:</u> iyermgeeta@yahoo.co.in	Bachelor of Education (B.Ed)
42.	Nirmala Institute of Education	Altinho, Panaji, Goa-403 001.	Dr. Denzil Martins	College contact No.: 2225633, 2420186 College Email ID: niegoa@gmail.com Principal contact No: 9850459429 Principal's Email ID: 6denzil9@gmail.com	Grant-in-aid Programs B.Ed./ B. Ed. (Special Education) Self-financed Programs Post Graduate Diploma in Guidance & Counselling. M.A. Wellness Counselling.
43.	Goa Vidyaprasarak Mandal's Dr. Dada Vaidya College of Education	Post Box No.139, Farmagudi,Ponda, Goa-403 401.	Dr. Allan Abreo	College contact No.: 2335880 College Email ID: gvm.educol@gmail.com Principal contact No: 2335089, 9422058395 Principal's Email ID: allancora@gmail.com	<u>Grant-in-aid Program</u> Bachelor of Education (B.Ed) <u>Research Centre</u> Education
44.	Govt. of Goa, Government College of Commerce	Borda, Margao, Goa-403 602.	Ms. Maria Fatima De Souza (Offg. Principal)	College contact No.: 2700555 College Email ID: gcc.margao@gmail.com Principal contact No: 2700555, 9421151795 Principal's Email ID: mariafatima0411@gmail.co m	Grant-in-aid Program B.Com.

45.	Goa College of	Cidade-de-Goa,	Mrs. Zarine Lobo	College contact No.:	Self-financed Program
	Hospitality and Culinary Education	Vainguinim Beach Goa-403 004.	(Offg. Principal)	2454560, 2454561 <u>College Email ID:</u> goahospitalitycollege@cidad	BBA - Hospitality & Culinary Management
				edegoa.com <u>Principal contact No:</u> 2454560, 2454561	
				Principal's Email ID: principal_ghc@cidadedegoa. com	
46.	Don Bosco College of	Fatorda, Margao	Dr. Neena	College contact No.:	Self-financed Programs
	Engineering	Goa-403602	Panandikar	2741045, 2743944, (Fax)2742648 <u>College Email ID:</u> dbcefatorda@dbcegoa.ac.in <u>Principal contact No:</u>	 B.E. Mechanical Engineering B.E. Civil Engineering B.E. Electronic & Telecommunication
				2741045, 2743944 <u>Principal's Email ID:</u> principal@dbcegoa.ac.in	4. B.E. Computer Engineering
47.	Vidya Prabodhini College of Commerce, Education, Computer and Management	Vidya Nagar, Parvari,Goa-403521	Dr. M.R. Patil	College contact No.: 2410500, 2413600 College Email ID: vidyaprabodhinigoa@gmail. com Principal contact No: 2413600, Principal's Email ID:	<u>Grant-in-aid Program</u> B.Com./ B.A.B.Ed.
				mrpatil@yahoo.com	
48.	Agnel Institute of Technology & Design	Assagao, Bardez Goa-403507	Dr. V. Mariappan	College contact No.: 2268642, (Fax) 2268642 College Email ID: aitdgoa@gmail.com Principal contact No: 9975540649	Self-financed Programs 1. B.E. Mechanical Engineering 2. B.E. Computer Engineering 3. B.E. Electronics & Communication
				Principal's Email ID: vm@aitdgoa.edu.com	Engineering(ECE)
49.	Vikas Parishad Mandre Mandre College of Commerce, Economics & Management	Dev Mandrekar Nagar, Mandre, Pernem, Goa- 403527.	Shri Narayan J. Naik (Administrative Incharge)	<u>College contact No.:</u> 2247269, 9423837316, 9422395963 <u>College Email ID:</u>	<u>Grant-in-aid Program</u> B.Com
	a management			mandrecollege@yahoo.co.in	
50.	Swami Vivekanand Vidyaprasarak Mandal's College of Commerce	Shirshire, Borim Ponda, Goa-403 401	Shri Shekhar Sawant (Offg. Principal)	College contact No.: 2333029 College Email ID:	<u>Grant-in-aid Program</u> B.Com,
				svvmcollege@yahoo.com <u>Principal's Email ID:</u> Sawant.shekhar@gmail.com	
51.	Sateri Pisani Education Society's Gopal Gaonkar Memorial Goa Multi-Faculty College	NH-4A, Ponda- Belgaum Road, Dayanand Nagar, Dharbandora, Goa – 403 406.	Dr. Manasvi M. Kamat	College contact No.: 2344064/062 College Email ID: gmfcgoa2013@gmail.com Principal contact No: 7768006580 Principal's Email ID:	<u>Grant-in-aid Programs</u> B.Com. B.B.A. B.C.A.
				manasvikamat@gmail.com	
52.	V.M. Salgaocar Institute of International Hospitality Education	Manora, Raia, Salcete, Goa-403720	Prof. Irfan S. Mirza (Director) (Offg.)	College contact No.: 6623000, (Fax) 6623111 College Email ID: info@vmsiihe.edu.in	Self-financed Program B.Sc. International Hospitality Management
				Director's contact No: 6623210, 7720023201 Director's Email ID:	
				irfan.mirza@vmsiihe.edu.in	A
53.	Ganapat Parsekar	Harmal,		College contact No.:	Grant-in-Aid Program

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	College of Education	Goa-403524		2242939 College Email ID:	B.A.B.Ed.
				hpsm1967@gmail.com <u>Director's contact No:</u> 2242939	
				Director's Email ID: hpsm1967@gmail.com	
54.	Don Bosco College of Agriculture	Don Bosco Agro-Ed Complex, Sulcorna, Pirla, via Quepem, Goa – 403 705	Shri Satish Raosaheb Patil (Officiating Principal)	College contact No.: 2602632 College Email ID: dbcaoffice2015@gmail.com Principal's contact No: 9421414268 Director's Email ID: dbcaprincipal@gmail.com	Grant-in-aid Program B.Sc. Agriculture
55.	Ramanata Crisna Pai Raikar School of Agriculture	Madhala Wada, Savoi Verem, Ponda-403 401.	Shri Shrirang Jambhale	College contact No.: 2340077 College Email ID: rcpragrischool@gmail.com Principal's contact No: 7588920490, 9673751125 Principal's Email ID: rsaawni@gmail.com, rangjambhala@gmail.com	Diploma in Agriculture Advanced Diploma in Agriculture

LIST OF RECOGNISED INSTITUTIONS

Sr. No.	Name of the Institution and address	Head of the Institute
1.	National Institute of Oceanography,	Dr. VSN Murthy(Acting),
	Dona Paula, Goa – 403 004.	Director
		Contact: 2450450/ 2456700
		Email: ocean@nio.org
2.	Directorate of Archives & Archaeology,	Shri M.L. Dicholkar,
	Govt. of Goa, Panaji, Goa-403 001.	Contact: 2226692/ 2435321
3.	Xavier Centre of Historical Research,	Dr. Savio Abreu,
	B.Borkar Road, Alto Porvorim, Bardez,	Director,
	Goa – 403521.	Contact: 2417772/ 2414971
		E-mail: info@xchr.in
4.	National Institute of Malaria Research,	Dr. Ashwani Kumar,
	Directorate of Health Services Bldg.,	(Officer-in-Charge)
	Campal, Panaji, Goa – 403001.	Contact: 2222444
		E-mail: ashwani07@gmail.com,
		nimrfugoa@gmail.com
5.	National Centre for Antarctic & Ocean	Dr. M. Ravichandran
	Research,	Director,
	Headland Sada, Vasco da Gama,	Contact: 2520876/ 2525511
	Goa-403804	E-mail: director@ncaor.gov.in,
		info@ncaor.gov.in
6.	Thomas Stephens Konknni Kendr,	Fr. Apolinario Cardozo S.J.,
	B.B. Borkar Road, Alto Porvorim,	Director,
	Goa – 403 521.	Contact: 2415857/ 2415864
		E-mail: tskkgoa@gmail.com
7.	Fishery Survey of India,	Shri S.K. Jaiswal,
	Govt. of India, Fishery Survey of India,	Contact: 2520248/ 2520957
	Opp. Microwave Tower,	E-mail: fsimormugaobase@gmail.com
	Bogda Road, Mormugao, Goa–403803	
8.	Syngenta Biosciences Pvt. Ltd.,	Dr. Bhanu Manjunath
	Research & Technology Centre,	Director,
	Santa Monica Works, Corlim, Ilhas,	Contact: 2490500/ 2490524
	Goa – 403 110	E-mail: bhanu.manjanath@syngenta.com,
		sitaram.pal@syngenta.com
9.	ICAR-Central Coastal Agricultural	Dr. Eaknath B. Chakurkar (Acting),
	Research Institute,	Director,
	Old Goa – 403 402.	Contact: 2284677/78/79
		E-mail: director.ccari@icar.gov.in

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INNOVATIVE PROJECTS/PROGRAMMES

(a) Distance Education, Information and Training Infrastructure (DEITI).

Goa University has set up Distance Education, Information and Training Infrastructure (DEITI) funded by Distance Education Council (Govt. of India) under Ministry of Human Resource. The set up is meant to cater distance education to the people of Goa through the satellite technology. There are 25 DRS (Direct Reception System) centres set up at selected Colleges and Higher Secondary Schools covering all 12 Talukas.

The DEITI is well equipped with its state-of-the-art studio having all kinds of facilities of audio-video recording and editing. The DEITI also organizes live interactive programmes where the students and teachers interact with the Resource persons on the specific subject. The studio facility is also made available on commercial basis for indoor/outdoor shooting, recording and editing at reasonable rates.

In charge (Administration): Chakraborty M., Head of Computer Centre

(b) Study India Programme (SIP)

The SIP programme is offered to a group of foreign students wanting to pursue study in India to earn credits. The universities/institutions desirous to send a batch consisting not less than five students are required to contact the SIP Coordination Committee to prepare and sign a Memorandum of Understanding containing the programme outline, time-schedule, credit transfer, and fee structure. The MOU is a prerequite for launching the SIP. The University does not entertain inquiries of students not supported by their respective universities/institutions.

Co-ordinators: Somayaji G., Tripathi R.

Contact e-mails: ganesh@unigoa.ac.in, rmt@unigoa.ac.in

(c) Online Distance Learning Programs (UNIGIS Unit)

Goa University, in collaboration with University of Salzburg, (Centre for Geoinformatics (Z_GIS) Austria, offers UNIGIS Online (Internet based) Distance Learning Programmes (M.Sc. & Professional Diploma) in Geographic Information Systems & Science. The Programmes are open to students from India and foreign countries. The design and delivery of these Online Programmes conform to the standards of the UNIGIS International.

For more information visit website www.unigis.net/goa; Office: goauniversity@unigis.net

FACILITIES & OTHER ACTIVITIES

a) Library: The Goa University Library and Information Centre was set up on 30th of June 1985 around the nucleus of the Library of the Centre for Post Graduate Research and Instruction, University of Bombay. The initial collection numbered 37,678 books and several bound volumes of periodicals. Today, our holdings have crossed 1,55,000 books covering a wide range of disciplines under Humanities, Social Science and Pure and Applied Sciences especially Microbiology, Marine Science, Environmental Science, Computer Science, Geology, Management and other disciplines including a special collection on Latin America and The Caribbean. The Library also has a large collection of titles in Konkani, the state language of Goa and a foreign language section which includes titles in Portuguese, French and Spanish. Our Library acquires around 3000 books and over 350 periodicals every year. It also receives more than 150 periodicals gifted by various organisations and institutions. Goa University Library is a designated Repository Library of United Nations' publications since 1996.

In addition to these, our Library has a collection of rare books on Indo-Portuguese History and Culture donated by the late Dr. P. S. S. Pissurlekar (about 5000 books in various languages). Mr. Nuno Gonsalves of Portugal and numerous others have donated their collections to the University for the use of scholars of Goa and the neighbouring regions. A bibliography of these resources is currently available in print form. The Goa University Library is the single largest centre of academic resources in the State of Goa and caters not only to the needs of the academic community of the state but also serves many scientific, historical and social science researchers from neighboring States.

Our Automated Services

With the successful completion of computerising the database of bibliographic details and automating its services our Library is on the threshold of embarking on its new role that of an information resource centre at the service of the academic community of this region, in addition to its traditional function of holding and disseminating of books.

Library website

The library website is available under the url <u>http://library.unigoa.ac.in.</u> This website has a Knowledge Portal which links to the various online e-resources subscribed as well as free for the use of the students and faculty. The e-resources provided by the INFLIBNET Centre Ahmedabad are available through the library website. Faculty and students get access to various full text and bibliographic databases through the UGC Infonet Digital Library link in the knowledge portal. There are federated search engines like <u>http://jccc-ugcinfonet.in/</u> available for searching the e-resources.

Library catalogue

The Library has presently 1,55,483, books and its bibliographic details are stored in an Open Source software KOHA in a designated server at the Computer Center of the University. This database is now available on the Internet under the url <u>http://libcat.unigoa.ac.in/.</u> Students and faculty can check the availability of books, reserve books and check the renewal dates through the interface available globally.

Electronic Theses and Dissertations

The Goa University has already started submitting PhD theses in digital format to the National ETD

Project "Sodhganga" which is available under the url

http://shodhganga.inflibnet.ac.in/handle/10603/6586 We have also scanned uploaded the theses in the Sodhganga project of the UGC..

Computer lab and Cyber Centre

The university Library has a Computer Centre and Cyber Lab for browsing the Internet. At present 50 computers are connected to the Internet with the 1 GB bandwidth connectivity provided by the National Knowledge Commission. The entire library building is also Wi-Fi enabled.

Library Timings

Week days : 9.00 A. M. To 6.30 P. M. Saturdays : 10.00 A. M. To 5.00 P. M.

(b) EARTH SCIENCE AND TECHNOLOGY CELL (ESTC) AND CENTRE OF EXCELLENCE IN MARINE MICROBIOLOGY (CoE)

Earth Science and Technology Cell (ESTC) in the field of Marine Microbiology was established at Goa University in January, 1998 with the support of Department of Ocean Development, New Delhi, which is now merged with the Ministry of Earth Sciences. The objectives of the Cell and the Centre are to strengthen academic and scientific work in the area of Earth, Ocean Sciences and Marine Microbiology through projects/workshop/seminar. The Cell functions under the guidance of the Management Board constituted by Ministry of Earth Sciences with Vice Chancellor, Goa University, as the Chairperson.

(c) UGC – HUMAN RESOURCE DEVELOPMENT CENTRE (UGC-HRDC)

This College has been functioning at the University campus since 1988 and is providing the required Orientation, Refresher and other Programmes for the Teaching Faculty at PG Departments and affiliated Colleges/Institutes of Goa University and other Universities in the country. Being one among 57 similar colleges set up and funded by the UGC in different Universities, this College has played a major role in the training of University/College teachers in a commendable way. With the establishment of the Computer Lab provided with special funds from UGC, the activities of the College have been further focused to include Internet/specialized subject-specific software as an integral part of Orientation/Refresher programmes.

In-charge Director: I. K. Pai, Department of Zoology

(d) UNIVERSITY SCIENCE INSTRUMENTATION CENTRE (USIC)

University Science Instrumentation Centre (USIC) is a central instrumentation facility of the University consisting of Electronics, Mechanical and Glass Blowing workshops managed by faculties, officers and trained technicians. The Centre was established in 1990 during the Eighth-Plan period with an independent building having 250 sq. meters, housing all three workshops. The main aim is to strengthen the laboratories of user Departments by way of equipment maintenance, calibration of test and measuring instruments, fabrication of gadgets and instruments, attachments required for some imported instruments so as to adapt them to Indian electrical standards etc. The Glass Blowing workshop is mostly involved in design and fabrication of glass apparatus as per the design submitted by the researchers, which are otherwise not available generally in the market and repair of costly glass apparatus. The work undertaken by USIC can be broadly classified as analytical services for sophisticated instruments, maintenance of equipments for Language and Science Laboratory, fabrication of teaching aids, development of new instruments, thus covering entire objective of USIC.

Coordinator: Ramesh V. Pai, Department of Physics

(e) REMOTE SENSING LABORATORY

A Remote Sensing Laboratory has been established with financial assistance from Indian Space Research Organisation (ISRO). The facilities of the laboratory include hardware consisting of five computers and software necessary for image processing. Image processing package such as ERDAS IMAGINE has been procured. An interdisciplinary programme has been introduced across the different faculties where remote sensing technique has application. The laboratory provides hands on training to students who opt for interdisciplinary programme on remote sensing and research and thus cater to the county's need for trained manpower in this field. All the instruments necessary for in-situ observations of radiance and irradiance, spectrophotometer for analysing the optically active constituents from samples and sunphotometer for measuring aerosol optical depth have also been procured. At present there are many R&D projects funded by different agencies like Naval Research Bard, Space Applications Centre, Space Physics Laboratory of VSSC, ISRO and Indian National Centre for Ocean Information Service of Ministry of Earth Sciences, Delhi. All these projects are carried out by Department of Marine Sciences for which the laboratory has been used extensively.

Co-ordinator: Menon H. B., Department of Marine Sciences

(f) CAMPUS NETWORK AND INTERNET FACILITY

Goa University has got a very strong IT infrastructure in the campus to meet the challenges of advancement of information technology. All administrative sections and academic departments on the campus are connected through the campus wide network, which is on fibre optic backbone. The Twenty four hours unlimited internet access is also available on the campus network. The University has recently established 2 Mbps Internet bandwidth in addition to its 512 kbps SCPC VSAT connectivity. This internet facility is extensively used by the teachers, researchers and students for their academic activities. Besides, there is a fully equipped UGC sponsored Internet Centre, which is mainly used by the students, who do not have Departmental facility to access the Internet services.

Wireless Network System

The University has also established the wireless network on the campus which has provided the Internet access facility to the hostels, guest house and the staff quarters.

Contact Person: Chakraborty M., Head of Computer Centre

(g) COMPUTER CENTRE

The University has Central Computing facilities at its Computer Centre. The Computer Centre extends required assistance to the teachers, students and Research Scholars in Computer related activities. Several DTP jobs, on request, are taken up by the Computer Centre. Good quality laser printing facility, black or colour, is available in the Computer Centre at nominal charges. The primary job of Computer Centre, however, is computerization of various activities of Administration, Finance, Academics and Examinations. The Computer Centre is also responsible for smooth maintenance of University network and Internet services.

Chakraborty M., Head of Computer Centre

(h) IPR Unit

A Committee has been formed to examine all matters pertaining to Intellectual Property Rights of Goa University. The members of this Committee are: J. A. E. Desa (Physics), B. F. Rodrigues (Botany) and V. S. Nadkarni (Chemistry). It is currently working towards establishing a system in which all University members can be regularly advised on the patentability of their work/ideas. The unit will also set up a database of published academic work of the scholars of Goa University. In January 2006 the Mumbai Patent office awarded an Indian Patent to Goa University. The first inventor is one of the faculty members of Goa University.

(j) CAREER COUNSELLING & PLACEMENT CELL

Goa University has established a Career Counselling & Placement Cell with a view to counsel students especially with regard to emerging careers, impart them soft skills and act as an interface between the industry and the students. The objectives of the Cell are:

- I. To disseminate information on placement avenues in academia/industry/research institutions.
- II. To conduct training workshops soft skills with a view to prepare students for the rigours of screening tests, group discussions, personal interviews, etc.
- III. To conduct seminars, workshops on emerging professions, professionalism, leadership, entrepreneurship, etc.
- IV. To act as an interface between industry and the students and facilitate industry-institution linkages.
- V. To facilitate campus-based placement activity.

The Cell facilitates pre-placement and placement activity both on and off the campus and invites industrial/commercial establishments to avail the services of the Cell for campus placements.

(k) NATIONAL SERVICE SCHEME (NSS)

National Service Scheme (NSS) functions under the Ministry of Human Resource Development, Government of India and Directorate of Youth Affairs, Government of Goa. The foremost aim of NSS is to motivate NSS student volunteers to undertake community development works while completing their studies. Under Goa University there are 27 NSS Units with about 8000 volunteers. Some of the important projects/activities undertaken by NSS include Disaster Management, Environment Enrichment, National Integration & Social Harmony, Water Literacy, Gender issues, etc.

Programme Co-ordinator: P. Morajkar, St. Xaviers College, Mapusa.

(I) COLLEGE DEVELOPMENT COUNCIL

The College Development Council of Goa University is a liaison between affiliated colleges and the University Grants Commission (UGC). It makes available information to the colleges about the various grants available for development from UGC and other institutions.

Co-ordinator: Dr. D.B. Arolkar, Principal, VNS Bandekar College of Arts and Science, Mapusa, Goa.

(m) STANDING COMMITTEE FOR PREVENTION OF SEXUAL HARASSMENT OF WOMEN AT WORKPLACE

A Standing Committee for prevention of Sexual Harassment of Women at workplace(CPSHW), which includes female students, has been constituted at the University, with members drawn from the teaching faculty, student community, administration and a nominee of GSWC. As and when required the Committee works in collaboration with the Directorate of Students' Welfare (DSW) for the benefit of the students in general and with the Centre for Women's Studies for the benefit of the female employees. Functions of the Committee relate to sensitisation regarding the need for the prevention of sexual harassment of women, crisis management & mediation, redressal and reporting, in addition to the dissemination of necessary information to the needy. The students and parents can promptly get in touch with the Chairperson or the Director of DSW in case of any emergency. CPSHW conducts annual Sensitisation Programme for creating a harassment free, healthy inter-gender atmosphere on the campus across the student community, the faculty, the employees and other residents on the University campus.

Chairperson: Kerkar Savita, Department of Biotechnology

(n) HOSTEL ACCOMMODATION

Goa University provides hostel facility for men as well as women students on the University campus. Priority for accommodation at the University Hostels will be given to students who have enrolled for post-graduate programmes and Research students at the University campus. Requests for hostel accommodation from students of affiliated colleges will be considered only subject to availability of accommodation.

Mess Advance

Students residing at the University hostels shall be required to pay mess charges (towards breakfast, lunch and dinner) for Semester in advance along with payment of accommodation charges. The details of mess charges payable by students are available along with the application form for admission to the hostels. Hostel rules and terms and conditions are available in the Information Bulletin of the hostels.

Fee Structure		Rupees	Remarks
a.	Admission Form	25.00	
b.	Accommodation per annum	4300.00	Per student on sharing basis.
		6000.00	Single accommodation for research students
C.	Caution Deposit	3000.00	only Refundable
d.	Fine per day for late payment	10.00	
f.	Mess charges		As applicable
g.	Temporary stay (one day)	75.00	

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Hostel and other fees are subject to revision.

Application Forms for Hostel Accommodation, along with the information bulletin, may be obtained from the Hostel Wardens.

Warden, Boys Hostel	Dr. P. P. Morajkar, Department of Chemistry
Warden, Girls Hostel	Dr. A. Gangopadhaya, Centre for Latin American Studies

(o) DIRECTORATE OF STUDENTS' WELFARE AND CULTURAL AFFAIRS

The students' welfare activities at Goa University are looked after by the Directorate of Students' Welfare and Cultural Affairs.

The Directorate of Students' Welfare and Cultural Affairs looks after two associations of students: (1) Goa University Students' Council representing the students from the colleges affiliated to Goa

University and postgraduate students. (2) Post Graduate Students' Union representing postgraduate students of Goa University. The students' welfare activities are conducted through these two organizations. The Directorate organizes Inter-collegiate and Inter-University activities such as Youth Festivals, Workshops, Competitions, Seminars etc. in the field of art, music, dance, theatre, literature, social services etc. The students are prepared and helped for participation in students' activities organised by Universities, Government and Semi-Government institutions.

EARN WHILE YOU LEARN SCHEME

The Directorate of Students Welfare has introduced the **"Earn while you Learn"** Scheme to meet the financial needs of deserving students on the campus of Goa University.

STUDENTS AID FUND

Under Students' Aid Fund, deserving students are given financial assistance to meet their expenses on tuition fee, examination fee, purchase of books, etc.

PLATEAUNICA

This is an Inter Faculty Youth Festival organised by the Post Graduate Students' Union. The festival offers an opportunity for the Post Graduate Students to exhibit their talents in the field of Art, Culture & Literature. Generally the Plateaunica is held for 2-3 days in the first week of February every year.

STUDENTS' SAFETY INSURANCE SCHEME

All students of Post Graduate Departments and undergraduate students of affiliated colleges are insured under this scheme and the students receive insurance benefits at the time of calamities such as accident, loss of part of body, death etc.

Director of DSW: Parulekar Dattesh , Centre for Latin American Studies.

(p) SPORTS

The Sports Section organises Inter Collegiate Championship tournaments annually for men and women in the following events: Badminton, Table Tennis, Judo, Weight Lifting, Power Lifting, Best Physique, Chess, Cross Country, Cycling, Tennis, Tennikoit, Basketball, Swimming, Football, Athletics, Kabaddi, Handball, Hockey, Kho-Kho, Volleyball, Cricket, Taekwondo, Baseball. The winners and runners-up are awarded with trophies, medals and certificates.

Goa University conducts selection trials to select the best players to represent the University at the Inter University Championships organised by Universities across the Country. Expenditure towards coaching camps, lodging, boarding, kit and travel is borne by the University.

Students participating in Inter Collegiate and Inter University Championships are given benefit of Sports Merit Marks as per Goa University Ordinances.

The Sports Section also conducts various intra-mural events for Post Graduates students. All sports activities are organized systematically and in a sporting atmosphere as per the scheduled, approved by the Sport Council of Goa University.

Asst. Director of Physical Education & Sports: Shri Milton Fernandes

(q) EXTRA-MURAL STUDIES AND EXTENSION SERVICES (EMS&ES)

The Directorate of Extra-Mural Studies and Extension Services was established on 20th June 1986 as per Article (5) of the Goa University Act. Extra Mural Studies and Extension Services is essentially a third dimension of Higher Education. The first two dimensions are formal teaching and research. The third dimension visualises a learning society at large. It includes adults, school drop-outs, professionals, housewives, slum population, street children and a host of learning groups who need not necessarily have a formal qualification to learn certain essential inputs.

The objectives of the Directorate are as follows: (a) To impart instruction to those who could not undergo normal education, but whose desire to be educated has remained intact. (b) To interact at all levels of education: Primary, Secondary, and Higher Secondary Non-formal education of adults, particularly women, farmers, workers and others whose understanding, skills, status etc. need to be uplifted. (c) To participate in rural development activities and to undertake action oriented research to solve local problems. (d) To make the common man aware of the impact of science and technology on daily life and to promote a scientific outlook and proper utilization of the products of science and technology. (e) To produce reading material and make it available to the people at low prices. (f) To collaborate with local voluntary organizations, industries, research institutions etc. to promote the objectives of the extra-mural studies and extension services. (g) To make people aware of their past and present history and culture and (h) To make people aware of their civil and social responsibility and obligations as well as their rights. Students who wish to help the Directorate in fulfilling its laid down aims and objectives are requested to meet the Hon. Director for further information.

Hon. Director: Dr. Viegas A. A. A., Department of Earth Science.

(r) HEALTH CENTRE

The University has health centre facility located near the Guest House. This is open to all the students as well as Staff (also families) and is open on all working days during 9.30am –1.15pm and 2.00pm-5.45pm.

Medical Officer: Dr. P. Sequeira

(s) GOA UNIVERSITY CONSUMER CO-OPERATIVE SOCIETY LTD., GOA. (GUCCS LTD.)

The Society has been registered with the Registrar of Co-operative Societies, Govt. of Goa. The main objectives of the Society are to encourage thrift, self-help and cooperation among members of the Society to sell daily requirements of life/operations to the members and others and to act as agent for joint purchase of domestic and other requirements of the members and to undertake activities for promotion of economic, social and cultural welfare of its members. The membership is open to all permanent employees (teaching and non-teaching) of Goa University and all post graduate students of Goa University including research scholars and fellows as individual members. Each post graduate student will pay a non-refundable membership fee of Rs. 50/- and entrance fee of Rs. 25/- to become a member of the Society at the time of admission to the University. The President of Post Graduate Students Union of Goa University will represent the student members in the Board of Directors of the Goa University Consumer Co-operative Society. A copy of the byelaws of the Society and the list of promoters are available at the library counter.

Chairman: Sawkar V. L., University Engineer Sawant E., Secretary

(t) GOA UNIVERSITY ALUMNI ASSOCIATION, GOA (GUAAG)

Goa University Alumni Association enrolls ex-students of Goa University as well as erstwhile students of Centre for Post Graduate Instruction and Research (CPIR) as life members with a membership fee of Rs. 1000/-. The objective being not only to revive nostalgia amongst alumni from various disciplines but to also foster exchange of views and ideas with its alma mater and students and ultimately to be beacon to the State. The Alumni day was celebrated on 14th August 2013 with a cultural evening followed by dinner. Shri Ashank Desai of Mastek India was the chief guest.

Contact Person: Viegas A. A. A., Department of Earth Science, **Savita Kerkar**, Department of Biotechnology. Email: alumni@unigoa.ac.in

(u) UGC NET & SET

The National Educational Testing Bureau of University Grants Commission (UGC) conducts National Eligibility Test (NET) to determine eligibility for lectureship and for award of Junior Research Fellowship (JRF) for Indian nationals in order to ensure minimum standards for the entrants in the teaching profession and research. The test is conducted in humanities (including languages), Social Sciences, Forensic Sciences, Environment Sciences, Computer Science and Applications and Electronic Science.

The UGC – National Eligibility Tests are conducted twice in a year, generally in the months of June and December. The notifications announcing the June and December examinations and the procedure for applying for UGC – NET are published in the months of March and September respectively in the weekly journal of nation–wide circulation, viz, *Employment News* and is also uploaded on the UGC website www.ugc.ac.in. The result of June, UGC-NET is declared generally in the month of October. Similarly December UGC-NET result is usually declared in the month of April. Goa University is also one of the Centres for the conduct of UGC–NET. Similarly, Goa University is also a designated centre for the Maharashtra and Goa State Level Eligibility Test (SET) conducted by University of Pune as the State Agency accredited by UGC.

Co-ordinator: Dr. R. N. Shirsat., Department of Chemistry

(v) OTHER FACILITIES

Over the years, the University has developed several facilities for the benefit of the University community. In addition to canteens located at various points in the campus, full-fledged branch of State Bank of India along with ATM facility, stationery store, general store, etc. have been located atthe Campus. The University also has a Guest House and an International Guest House, for the benefit of visiting faculty and other guests.

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UGC REGULATIONS ON CURBING THE MENACE OF RAGGING IN HIGHER EDUCATIONAL INSTITUTIONS, 2009.

(under Section 26 (1)(g) of the University Grants Commission Act, 1956)

PREAMBLE

In view of the directions of the Hon'ble Supreme Court in the matter of "University of Kerala v/s. Council, Principals, Colleges and others" in SLP no. 24295 of 2006 dated 16.05.2007 and that dated 8.05.2009 in Civil Appeal number 887 of 2009, and in consideration of the determination of the Central Government and the University Grants Commission to prohibit, prevent and eliminate the scourge of ragging including any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student, or indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in any fresher or any other student or asking any student to do any act which such student will not in the ordinary programme do and which has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student, with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student, in all higher education institutions in the country, and thereby, to provide for the healthy development, physically and psychologically, of all students, the University Grants Commission, in consultation with the Councils, brings forth this Regulation. In exercise of the powers conferred by Clause (g) of sub-section (1) of Section 26 of the University Grants Commission Act, 1956, the University Grants Commission hereby makes the following Regulations, namely;

1. Title, commencement and applicability.-

- (vii) These regulations shall be called the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009".
- (viii) They shall come into force from the date of their publication in the Official Gazette.
- (ix) They shall apply to all the institutions coming within the definition of an University under sub-section (f) of section (2) of the University Grants Commission Act, 1956, and to all institutions deemed to be a university under Section 3 of the University Grants Commission Act, 1956, to all other higher educational institutions, or elements of such universities or institutions, including its departments, constituent units and all the premises, whether being academic, residential, playgrounds, canteen, or other such premises of such universities and higher educational institutions, whether located within the campus or outside, and to all means of transportation of students, whether public or private, accessed by students for the pursuit of studies in such universities, deemed universities and higher educational institutions.

2. Objectives.-

To prohibit any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student, or indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in any fresher or any other student or asking any student to do any act which such student will not in the ordinary programme do and which has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student, with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student; and thereby, to eliminate ragging in all its forms from universities, deemed universities and other higher educational institutions in the country by prohibiting it under these Regulations, preventing its occurrence and punishing those who indulge in ragging as provided for in these Regulations and the appropriate law in force.

3. What constitutes Ragging.- Ragging constitutes one or more of any of the following acts:

- ii any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student;
- iii indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship, physical or psychological harm or to raise fear or apprehension thereof in any fresher or any other student;
- iv asking any student to do any act which such student will not in the ordinary programme do and which

has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student;

- (x) any act by a senior student that prevents, disrupts or disturbs the regular academic activity of any other student or a fresher;
- (xi) exploiting the services of a fresher or any other student for completing the academic tasks assigned to an individual or a group of students.
- (xii) any act of financial extortion or forceful expenditure burden put on a fresher or any other student by students;
- (xiii) any act of physical abuse including all variants of it: sexual abuse, homosexual assaults, stripping, forcing obscene and lewd acts, gestures, causing bodily harm or any other danger to health or person;
- (xiv) any act or abuse by spoken words, emails, post, public insults which would also include deriving perverted pleasure, vicarious or sadistic thrill from actively or passively participating in the discomfiture to fresher or any other student;
- (xv) any act that affects the mental health and self-confidence of a fresher or any other student with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student.

4. Definitions.-

(c) In these regulations unless the context otherwise requires,-

"Act" means, the University Grants Commission Act, 1956 (3 of 1956);

"Academic year" means the period from the commencement of admission of students in any programme of study in the institution up to the completion of academic requirements for that particular year.

"Anti-Ragging Helpline" means the Helpline established under clause (a) of Regulation 8.1 of these Regulations.

"Commission" means the University Grants Commission;

"Council" means a body so constituted by an Act of Parliament or an Act of any State Legislature for setting, or co-ordinating or maintaining standards in the relevant areas of higher education, such as the All India Council for Technical Education (AICTE), the Bar Council of India (BCI), the Dental Council of India (DCI), the Distance Education Council (DEC), the Indian Council of Agricultural Research (ICAR), the Indian Nursing Council (INC), the Medical Council of India (MCI), the National Council for Techner Education (NCTE), the Pharmacy Council of India (PCI), etc. and the State Higher Education Councils.

"District Level Anti-Ragging Committee" means the Committee, headed by the District Magistrate, constituted by the State Government, for the control and elimination of ragging in institutions within the jurisdiction of the district.

"Head of the institution" means the Vice-Chancellor in case of a university or a deemed to be university, the Principal or the Director or such other designation as the executive head of the institution or the college is referred.

"Fresher" means a student who has been admitted to an institution and who is undergoing his/her first year of study in such institution.

"Institution" means a higher educational institution including, but not limited to an university, a deemed to be university, a college, an institute, an institution of national importance set up by an Act of Parliament or a constituent unit of such institution, imparting higher education beyond 12 years of schooling leading to, but not necessarily culminating in, a degree (graduate, postgraduate and/or higher level) and/or to a university diploma.

"NAAC" means the National Academic and Accreditation Council established by the Commission under section 12(ccc) of the Act;

"State Level Monitoring Cell" means the body constituted by the State Government for the control and elimination of ragging in institutions within the jurisdiction of the State, established under a State Law or on the advice of the Central Government, as the case may be.

(xi) Words and expressions used and not defined herein but defined in the Act or in the General Clauses Act, 1897, shall have the meanings respectively assigned to them in the Act or in the General Clauses Act, 1897, as the case may be.

5. Measures for prohibition of ragging at the institution level:-

(c) No institution or any part of it thereof, including its elements, including, but not limited to, the departments, constituent units, colleges, centres of studies and all its premises, whether academic,

residential, playgrounds, or canteen, whether located within the campus or outside, and in all means of transportation of students, whether public or private, accessed by students for the pursuit of studies in such institutions, shall permit or condone any reported incident of ragging in any form; and all

institutions shall take all necessary and required measures, including but not limited to the provisions of these Regulations, to achieve the objective of eliminating ragging, within the institution or outside,

(h) All institutions shall take action in accordance with these Regulations against those found guilty of ragging and/or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.

6. Measures for prevention of ragging at the institution level.-

(c) An institution shall take the following steps in regard to admission or registration of students; namely,

Every public declaration of intent by any institution, in any electronic, audiovisual or print or any other media, for admission of students to any programme of study shall expressly provide that ragging is totally prohibited in the institution, and anyone found guilty of ragging and/or abetting ragging, whether actively or passively, or being a part of a conspiracy to promote ragging, is liable to be punished in accordance with these Regulations as well as under the provisions of any penal law for the time being in force.

The brochure of admission/instruction booklet or the prospectus, whether in print or electronic format, shall prominently print these Regulations in full. Provided that the institution shall also draw attention to any law concerning ragging and its consequences, as may be applicable to the institution publishing such brochure of admission/instruction booklet or the prospectus. Provided further that the telephone numbers of the Anti-Ragging Helpline and all the important functionaries in the institution, including but not limited to the Head of the institution, faculty members, members of the Anti-Ragging Squads, District and Sub-Divisional authorities, Wardens of hostels, and other functionaries or authorities where relevant, shall be published in the brochure of admission/instruction booklet or the prospectus.

Where an institution is affiliated to a University and publishes a brochure of admission/instruction booklet or a prospectus, the affiliating university shall ensure that the affiliated institution shall comply with the provisions of clause (a) and clause (b) of Regulation 6.1 of these Regulations.

The application form for admission, enrolment or registration shall contain an affidavit, mandatorily in English and in Hindi and/or in one of the regional languages known to the applicant, as provided in the English language in Annexure I to these Regulations, to be filled up and signed by the applicant to the effect that he/she has read and understood the provisions of these Regulations as well as the provisions of any other law for the time being in force, and is aware of the prohibition of ragging and the punishments prescribed, both under penal laws as well as under these Regulations and also affirm to the effect that he/she has not been expelled and/or debarred by any institution and further aver that he/she would not indulge, actively or passively, in the act or abet the act of ragging and if found guilty of ragging and/or abetting ragging, is liable to be proceeded against under these Regulations or under any penal law or any other law for the time being in force and such action would include but is not limited to debarment or expulsion of such student.

The application form for admission, enrolment or registration shall contain an affidavit, mandatorily in English and in Hindi and/or in one of the regional languages known to the parents/guardians of the applicant, as provided in the English language in Annexure I to these Regulations, to be filled up and signed by the parents/guardians of the applicant to the effect that he/she has read and understood the provisions of these Regulations as well as the provisions of any other law for the time being in force, and is aware of the prohibition of ragging and the punishments prescribed, both under penal laws as well as under these Regulations and also affirm to the effect that his/her ward has not been expelled and/or debarred by any institution and further aver that his/her ward would not indulge, actively or passively, in the act or abet the act of ragging and if found guilty of ragging and/or abetting ragging, his/her ward is liable to be proceeded against under these Regulations or under any penal law or any other law for the time being in force and such action would include but is not limited to debarment or expulsion of his/her ward.

The application for admission shall be accompanied by a document in the form of, or annexed to, the School Leaving Certificate/Transfer Certificate/Migration Certificate/Character Certificate reporting on the inter-personal/social behavioural pattern of the applicant, to be issued by the school or institution last attended by the applicant, so that the institution can thereafter keep watch on the applicant, if admitted, whose behaviour has been commented in such document.

A student seeking admission to a hostel forming part of the institution, or seeking to reside in any temporary premises not forming part of the institution, including a private commercially managed

lodge or hostel, shall have to submit additional affidavits countersigned by his/her parents/guardians in the form prescribed in Annexure I and Annexure II to these Regulations respectively along with his/her application.

Before the commencement of the academic session in any institution, the Head of the Institution shall convene and address a meeting of various functionaries/agencies, such as Hostel Wardens, representatives of students, parents/ guardians, faculty, district administration including the police, to discuss the measures to be taken to prevent ragging in the institution and steps to be taken to identify those indulging in or abetting ragging and punish them.

The institution shall, to make the community at large and the students in particular aware of the dehumanizing effect of ragging, and the approach of the institution towards those indulging in ragging, prominently display posters depicting the provisions of penal law applicable to incidents of ragging, and the provisions of these Regulations and also any other law for the time being in force, and the punishments thereof, shall be prominently displayed on Notice Boards of all departments, hostels and other buildings as well as at places, where students normally gather and at places, known to be vulnerable to occurrences of ragging incidents.

The institution shall request the media to give adequate publicity to the law prohibiting ragging and the negative aspects of ragging and the institution's resolve to ban ragging and punish those found guilty without fear or favour.

The institution shall identify, properly illuminate and keep a close watch on all locations known to be vulnerable to occurrences of ragging incidents.

The institution shall tighten security in its premises, especially at vulnerable places and intense policing by Anti-Ragging Squad, referred to in these Regulations and volunteers, if any, shall be resorted to at such points at odd hours during the first few months of the academic session.

The institution shall utilize the vacation period before the start of the new academic year to launch a publicity campaign against ragging through posters, leaflets and such other means, as may be desirable or required, to promote the objectives of these Regulations.

The faculties/departments/units of the institution shall have induction arrangements, including those which anticipate, identify and plan to meet any special needs of any specific section of students, in place well in advance of the beginning of the academic year with an aim to promote the objectives of this Regulation.

Every institution shall engage or seek the assistance of professional counsellors before the commencement of the academic session, to be available when required by the institution, for the purposes of offering counselling to freshers and to other students after the commencement of the academic year.

The head of the institution shall provide information to the local police and local authorities, the details of every privately commercially managed hostels or lodges used for residential purposes by students enrolled in the institution and the head of the institution shall also ensure that the Anti-Ragging Squad shall ensure vigil in such locations to prevent the occurrence of ragging therein.

(iii) An institution shall, on admission or enrolment or registration of students, take the following steps, namely;

Every fresh student admitted to the institution shall be given a printed leaflet detailing to whom he/she has to turn to for help and guidance for various purposes including addresses and telephone numbers, so as to enable the student to contact the concerned person at any time, if and when required, of the Anti-Ragging Helpline referred to in these Regulations, Wardens, Head of the institution, all members of the anti-ragging squads and committees, relevant district and police authorities.

The institution, through the leaflet specified in clause (a) of Regulation 6.2 of these Regulations shall explain to the freshers, the arrangements made for their induction and orientation which promote efficient and effective means of integrating them fully as students with those already admitted o the institution in earlier years.

The leaflet specified in clause (a) of Regulation 6.2 of these Regulations shall inform the freshers about their rights as bona fide students of the institution and clearly instructing them that they should desist from doing anything, with or against their will, even if ordered to by the seniors students, and that any attempt of ragging shall be promptly reported to the Anti-ragging Squad or to the Warden or to the Head of the institution, as the case may be.

The leaflet specified in clause (a) of Regulation 6.2 of these Regulations shall contain a calendar of events and activities laid down by the institution to facilitate and complement familiarization of

freshers with the academic environment of the institution.

The institution shall, on the arrival of senior students after the first week or after the second week, as the case may be, schedule orientation programmes as follows, namely; (i) joint sensitization programme and counselling of both freshers and senior students by a professional counsellor, referred to in clause

of Regulation 6.1 of these Regulations; (ii) joint orientation programme of freshers and seniors to be addressed by the Head of the institution and the anti-ragging committee;(iii) organization on a large scale of cultural, sports and other activities to provide a platform for the freshers and seniors to interact in the presence of faculty members; (iv) in the hostel, the warden should address all students; and may request two junior colleagues from the college faculty to assist the warden by becoming resident tutors for a temporary duration.(v) as far as possible faculty members should dine with the hostel residents in their respective hostels to instil a feeling of confidence among the freshers.

The institution shall set up appropriate committees, including the programme-incharge, student advisor, Wardens and some senior students as its members, to actively monitor, promote and regulate healthy interaction between the freshers, junior students and senior students.

Freshers or any other student(s), whether being victims, or witnesses, in any incident of ragging, shall be encouraged to report such occurrence, and the identity of such informants shall be protected and shall not be subject to any adverse consequence only for the reason for having reported such incidents.

Each batch of freshers, on arrival at the institution, shall be divided into small groups and each such group shall be assigned to a member of the faculty, who shall interact individually with each member of the group every day for ascertaining the problems or difficulties, if any, faced by the fresher in the institution and shall extend necessary help to the fresher in overcoming the same.

It shall be the responsibility of the member of the faculty assigned to the group of freshers, to coordinate with the Wardens of the hostels and to make surprise visits to the rooms in such hostels, where a member or members of the group are lodged; and such member of faculty shall maintain a diary of his/her interaction with the freshers under his/her charge.

Freshers shall be lodged, as far as may be, in a separate hostel block, and where such facilities are not available, the institution shall ensure that access of seniors to accommodation allotted to freshers is strictly monitored by wardens, security guards and other staff of the institution.

A round the clock vigil against ragging in the hostel premises, in order to prevent ragging in the hostels after the classes are over, shall be ensured by the institution.

It shall be the responsibility of the parents/guardians of freshers to promptly bring any instance of ragging to the notice of the Head of the Institution.

Every student studying in the institution and his/her parents/guardians shall provide the specific affidavits required under clauses (d), (e) and (g) of Regulation 6.1 of these Regulations at the time of admission or registration, as the case may be, during each academic year.

Every institution shall obtain the affidavit from every student as referred to above in clause (m) of Regulation 6.2 and maintain a proper record of the same and to ensure its safe upkeep thereof, including maintaining the copies of the affidavit in an electronic form, to be accessed easily when required either by the Commission or any of the Councils or by the institution or by the affiliating University or by any other person or organisation authorised to do so.

Every student at the time of his/her registration shall inform the institution about his/her place of residence while pursuing the course of study, and in case the student has not decided his/her place of residence or intends to change the same, the details of his place of residence shall be provided immediately on deciding the same; and specifically in regard to a private commercially managed lodge or hostel where he/she has taken up residence.

The Head of the institution shall, on the basis of the information provided by the student under clause

of Regulation 6.2, apportion sectors to be assigned to members of the faculty, so that such member of faculty can maintain vigil and report any incident of ragging outside the campus or en route while commuting to the institution using any means of transportation of students, whether public or private.

The Head of the institution shall, at the end of each academic year, send a letter to the parents/guardians of the students who are completing their first year in the institution, informing them about these Regulations and any law for the time being in force prohibiting ragging and the punishments thereof as well as punishments prescribed under the penal laws, and appealing to them to impress upon their wards to desist from indulging in ragging on their return to the institution at the beginning of the academic session next.

(a) Every institution shall constitute the following bodies; namely,

Every institution shall constitute a Committee to be known as the Anti-Ragging Committee to be nominated and headed by the Head of the institution, and consisting of representatives of civil and police administration, local media, Non-Government Organizations involved in youth activities, representatives of faculty members, representatives of parents, representatives of students belonging to the freshers'

category as well as senior students, non-teaching staff; and shall have a diverse mix of membership in terms of levels as well as gender.

It shall be the duty of the Anti-Ragging Committee to ensure compliance with the provisions of these Regulations as well as the provisions of any law for the time being in force concerning ragging; and also to monitor and oversee the performance of the Anti-Ragging Squad in prevention of ragging in the institution.

Every institution shall also constitute a smaller body to be known as the Anti-Ragging Squad to be nominated by the Head of the Institution with such representation as may be considered necessary for maintaining vigil, oversight and patrolling functions and shall remain mobile, alert and active at all times. Provided that the Anti-Ragging Squad shall have representation of various members of the campus community and shall have no outside representation.

It shall be the duty of the Anti-Ragging Squad to be called upon to make surprise raids on hostels, and other places vulnerable to incidents of, and having the potential of, ragging and shall be empowered to inspect such places.

It shall also be the duty of the Anti-Ragging Squad to conduct an on-the-spot enquiry into any incident of ragging referred to it by the Head of the institution or any member of the faculty or any member of the staff or any student or any parent or guardian or any employee of a service provider or by any other person, as the case may be; and the enquiry report along with recommendations shall be submitted to the Anti-Ragging Committee for action under clause (a) of Regulation 9.1. Provided that the Anti-Ragging Squad shall conduct such enquiry observing a fair and transparent procedure and the principles of natural justice and after giving adequate opportunity to the student or students accused of ragging and other witnesses to place before it the facts, documents and views concerning the incident of ragging, and considering such other relevant information as may be required.

Every institution shall, at the end of each academic year, in order to promote the objectives of these Regulations, constitute a Mentoring Cell consisting of students volunteering to be Mentors for freshers, in the succeeding academic year; and there shall be as many levels or tiers of Mentors as the number of batches in the institution, at the rate of one Mentor for six freshers and one Mentor of a higher level for six Mentors of the lower level.

Every University shall constitute a body to be known as Monitoring Cell on Ragging, which shall coordinate with the affiliated colleges and institutions under the domain of the University to achieve the objectives of these Regulations; and the Monitoring Cell shall call for reports from the Heads of institutions in regard to the activities of the Anti-Ragging Committees, Anti - Ragging Squads, and the Mentoring Cells at the institutions, and it shall also keep itself abreast of the decisions of the District level Anti-Ragging Committee headed by the District Magistrate.

The Monitoring Cell shall also review the efforts made by institutions to publicize anti-ragging measures, soliciting of affidavits from parents/guardians and from students, each academic year, to abstain from ragging activities or willingness to be penalized for violations; and shall function as the prime mover for initiating action on the part of the appropriate authorities of the university for amending the Statutes or Ordinances or Bye-laws to facilitate the implementation of anti-ragging measures at the level of the institution.

(viii) Every institution shall take the following other measures, namely;

Each hostel or a place where groups of students reside, forming part of the institution, shall have a fulltime Warden, to be appointed by the institution as per the eligibility criteria laid down for the post reflecting both the command and control aspects of maintaining discipline and preventing incidents of ragging within the hostel, as well as the softer skills of counselling and communicating with the youth outside the class-room situation; and who shall reside within the hostel, or at the very least, in the close vicinity thereof.

The Warden shall be accessible at all hours and be available on telephone and other modes of communication, and for the purpose the Warden shall be provided with a mobile phone by the institution, the number of which shall be publicised among all students residing in the hostel.

The institution shall review and suitably enhance the powers of Wardens; and the security personnel posted in hostels shall be under the direct control of the Warden and their performance shall be assessed by them.

The professional counsellors referred to under clause (o) of Regulation 6.1 of these Regulations shall, at the time of admission, counsel freshers and/or any other student(s) desiring counselling, in order to prepare them for the life ahead, particularly in regard to the life in hostels and to the extent possible, also involve parents and teachers in the counselling sessions.

- (i)The institution shall undertake measures for extensive publicity against ragging by means of audiovisual aids, counselling sessions, workshops, painting and design competitions among students and such other measures, as it may deem fit.
- (ii) In order to enable a student or any person to communicate with the Anti-Ragging Helpline, every institution shall permit unrestricted access to mobile phones and public phones in hostels and campuses, other than in class-rooms, seminar halls, library, and in such other places that the institution may deem it necessary to restrict the use of phones.
- (iii)The faculty of the institution and its non-teaching staff, which includes but is not limited to the administrative staff, contract employees, security guards and employees of service providers providing services within the institution, shall be sensitized towards the ills of ragging, its prevention and the consequences thereof.
- (iv) The institution shall obtain an undertaking from every employee of the institution including all teaching and non-teaching members of staff, contract labour employed in the premises either for running canteen or as watch and ward staff or for cleaning or maintenance of the buildings/lawns and employees of service providers providing services within the institution, that he/she would report promptly any case of ragging which comes to his/her notice.
- (v) The institution shall make a provision in the service rules of its employees for issuing certificates of appreciation to such members of the staff who report incidents of ragging, which will form part of their service record.
- (vi) The institution shall give necessary instructions to the employees of the canteens and messing, whether that of the institution or that of a service provider providing this service, or their employers, as the case may be, to keep a strict vigil in the area of their work and to report the incidents of ragging to the Head of the institution or members of the Anti-Ragging Squad or members of the Anti-Ragging Committee or the Wardens, as may be required.
- (vii) All Universities awarding a degree in education at any level, shall be required to ensure that institutions imparting instruction in such programmes or conducting training programme for teachers include inputs relating to anti-ragging and the appreciation of the relevant human rights, as well as inputs on topics regarding sensitization against corporal punishments and checking of bullying amongst students, so that every teacher is equipped to handle at least the rudiments of the counselling approach.
- (viii) Discreet random surveys shall be conducted amongst the freshers every fortnight during the first three months of the academic year to verify and crosscheck whether the institution is indeed free of ragging or not and for the purpose the institution may design its own methodology of conducting such surveys.
- m) The institution shall cause to have an entry, apart from those relating to general conduct and behaviour, made in the Migration/Transfer Certificate issued to the student while leaving the institution, as to whether the student has been punished for committing or abetting an act of ragging, as also whether the student has displayed persistent violent or aggressive behaviour or any inclination to harm others, during his course of study in the institution.

Notwithstanding anything contained in these Regulations with regard to obligations and responsibilities pertaining to the authorities or members of bodies prescribed above, it shall be the general collective responsibility of all levels and sections of authorities or functionaries including members of the faculty and employees of the institution, whether regular or temporary, and employees of service providers providing service within the institution, to prevent or to act promptly against the occurrence of ragging or any incident of ragging which comes to their notice.

The Heads of institutions affiliated to a University or a constituent of the University, as the case may be, shall, during the first three months of an academic year, submit a weekly report on the status of compliance with Anti-Ragging measures under these Regulations, and a monthly report on such status thereafter, to the Vice-Chancellor of the University to which the institution is affiliated to or recognized by.

The Vice Chancellor of each University, shall submit fortnightly reports of the University, including

those of the Monitoring Cell on Ragging in case of an affiliating university, to the State Level Monitoring Cell.

- (c)Action to be taken by the Head of the institution.- On receipt of the recommendation of the Anti RaggingSquad or on receipt of any information concerning any reported incident of ragging, the Head of institution shall immediately determine if a case under the penal laws is made out and if so, either on his own or through a member of the Anti-Ragging Committee authorised by him in this behalf, proceed to file a First Information Report (FIR), within twenty four hours of receipt of such information or recommendation, with the police and local authorities, under the appropriate penal provisions relating to one or more of the following, namely;
 - (iii) Abetment to ragging;
 - (iv) Criminal conspiracy to rag;
 - (v) Unlawful assembly and rioting while ragging;
 - (vi) Public nuisance created during ragging;
 - (vii) Violation of decency and morals through ragging;
 - (viii) Injury to body, causing hurt or grievous hurt;
 - (ix) Wrongful restraint;
 - (x) Wrongful confinement;
 - (xi) Use of criminal force;
 - (xii) Assault as well as sexual offences or unnatural offences;
 - (xiii) Extortion;
 - (xiv) Criminal trespass;
 - (xv) Offences against property;
 - (xvi) Criminal intimidation;
 - (xvii) Attempts to commit any or all of the above mentioned offences against the victim(s);
 - (xviii) Threat to commit any or all of the above mentioned offences against the victim(s);
 - (xix) Physical or psychological humiliation;
 - (xx) All other offences following from the definition of "Ragging".

Provided that the Head of the institution shall forthwith report the occurrence of the incident of ragging to the District Level Anti-Ragging Committee and the Nodal officer of the affiliating University, if the institution is an affiliated institution. Provided further that the institution shall also continue with its own enquiry initiated under clause 9 of these Regulations and other measures without waiting for action on the part of the police/local authorities and such remedial action shall be initiated and completed immediately and in no case later than a period of seven days of the reported occurrence of the incident of ragging.

8. Duties and Responsibilities of the Commission and the Councils.-

(i) The Commission shall, with regard to providing facilitating communication of information regarding incidents of ragging in any institution, take the following steps, namely;

The Commission shall establish, fund and operate, a toll-free Anti-Ragging Helpline, operational round the clock, which could be accessed by students in distress owing to ragging related incidents.

Any distress message received at the Anti-Ragging Helpline shall be simultaneously relayed to the Head of the Institution, the Warden of the Hostels, the Nodal Officer of the affiliating University, if the incident reported has taken place in an institution affiliated to a University, the concerned District authorities and if so required, the District Magistrate, and the Superintendent of Police, and shall also be web enabled so as to be in the public domain simultaneously for the media and citizens to access it.

The Head of the institution shall be obliged to act immediately in response to the information received from the Anti-Ragging Helpline as at sub-clause (b) of this clause.

The telephone numbers of the Anti-Ragging Helpline and all the important functionaries in every institution, Heads of institutions, faculty members, members of the anti-ragging committees and anti ragging squads, district and sub-divisional authorities and state authorities, Wardens of hostels, and other functionaries or authorities where relevant, shall be widely disseminated for access or to seek help in emergencies.

The Commission shall maintain an appropriate data base to be created out of affidavits, affirmed by each student and his/her parents/guardians and stored electronically by the institution, either on its or through an agency to be designated by it; and such database shall also function as a record

of ragging complaints received, and the status of the action taken thereon.

The Commission shall make available the database to a non-governmental agency to be nominated by the Central Government, to build confidence in the public and also to provide information of non compliance with these Regulations to the Councils and to such bodies as may be authorized by the Commission or by the Central Government.

(ii) The Commission shall take the following regulatory steps, namely;

The Commission shall make it mandatory for the institutions to incorporate in their prospectus, the directions of the Central Government or the State Level Monitoring Committee with regard to prohibition and consequences of ragging, and that non-compliance with these Regulations and directions so provided, shall be considered as lowering of academic standards by the institution, therefore making it liable for appropriate action.

- (i) The Commission shall verify that the institutions strictly comply with the requirement of getting the affidavits from the students and their parents/guardians as envisaged under these Regulations.
- (ii) The Commission shall include a specific condition in the Utilization Certificate, in respect of any financial assistance or grants-in-aid to any institution under any of the general or special schemes of the Commission that the institution has complied with the anti-ragging measures.
- (iii) Any incident of ragging in an institution shall adversely affect its accreditation, ranking or grading by NAAC or by any other authorized accreditation agencies while assessing the institution for accreditation, ranking or grading purposes.
- (iv) The Commission may accord priority in financial grants-in-aid to those institutions, otherwise eligible to receive grants under section 12B of the Act, which report a blemish less record in terms of there being no reported incident of ragging.
- (v) The Commission shall constitute an Inter-Council Committee, consisting of representatives of the various Councils, the Non-Governmental agency responsible for monitoring the database maintained by the Commission under clause (g) of Regulation 8.1 and such other bodies in higher education, to coordinate and monitor the anti-ragging measures in institutions across the country and to make recommendations from time to time; and shall meet at least once in six months each year.
- (vi) The Commission shall institute an Anti-Ragging Cell within the Commission as an institutional mechanism to provide secretarial support for collection of information and monitoring, and to coordinate with the State Level Monitoring Cell and University level Committees for effective implementation of anti-ragging measures, and the Cell shall also coordinate with the Non-Governmental agency responsible for monitoring the database maintained by the Commission appointed under clause (g) of Regulation 8.1.

9. Administrative action in the event of ragging.-

(iii) The institution shall punish a student found guilty of ragging after following the procedure and in the manner prescribed herein under:

The Anti-Ragging Committee of the institution shall take an appropriate decision, in regard to punishment or otherwise, depending on the facts of each incident of ragging and nature and gravity of the incident of ragging established in the recommendations of the Anti-Ragging Squad.

The Anti-Ragging Committee may, depending on the nature and gravity of the guilt established by the Anti-Ragging Squad, award, to those found guilty, one or more of the following punishments, namely; Suspension from attending classes and academic privileges.

Withholding/ withdrawing scholarship/ fellowship and other benefits.

Debarring from appearing in any test/ examination or other evaluation process.

Withholding results.

Debarring from representing the institution in any regional, national or international meet, tournament, youth festival, etc.

Suspension/ expulsion from the hostel.

Cancellation of admission.

Rustication from the institution for period ranging from one to four semesters.

Expulsion from the institution and consequent debarring from admission to any other institution for a specified period. Provided that where the persons committing or abetting the act of ragging are not identified, the institution shall resort to collective punishment.

An appeal against the order of punishment by the Anti-Ragging Committee shall lie, in case of an order of

an institution, affiliated to or constituent part, of a University, to the Vice-Chancellor of the University; in case of an order of a University, to its Chancellor.

In case of an institution of national importance created by an Act of Parliament, to the Chairman or Chancellor of the institution, as the case may be.

- (iv) Where an institution, being constituent of, affiliated to or recognized by a University, fails to comply with any of the provisions of these Regulations or fails to curb ragging effectively, such University may take any one or more of the following actions, namely;
 - (vi) Withdrawal of affiliation/recognition or other privileges conferred.
 - (vii) Prohibiting such institution from presenting any student or students then undergoing any programme of study therein for the award of any degree/diploma of the University.

Provided that where an institution is prohibited from presenting its student or students, the Commission shall make suitable arrangements for the other students so as to ensure that such students are able to pursue their academic studies.

- (a) Withholding grants allocated to it by the university, if any
- (b) Withholding any grants channelized through the university to the institution.
- (c) Any other appropriate penalty within the powers of the university.
- (6) Where in the opinion of the appointing authority, a lapse is attributable to any member of the faulty or staff of the institution, in the matter of reporting or taking prompt action to prevent an incident of ragging or who display an apathetic or insensitive attitude towards complaints of ragging, or who fail to take timely steps, whether required under these Regulations or otherwise, to prevent an incident or incidents of ragging, then such authority shall initiate departmental disciplinary action, in accordance with the prescribed procedure of the institution, against such member of the faulty or staff.

Provided that where such lapse is attributable to the Head of the institution, the authority designated to appoint such Head shall take such departmental disciplinary action; and such action shall be without prejudice to any action that may be taken under the penal laws for abetment of ragging for failure to take timely steps in the prevention of ragging or punishing any student found guilty of ragging.

(7) The Commission shall, in respect of any institution that fails to take adequate steps to prevent ragging or fails to act in accordance with these Regulations or fails to punish perpetrators or incidents of ragging suitably, take one of more of the following measures, namely;

Withdrawal of declaration of fitness to receive grants under section 12B of the Act.

Withholding any grant allocated.

Declaring the institution ineligible for consideration for any assistance under any of the general or special assistance programmes of the Commission.

Informing the general public, including potential candidates for admission, through a notice displayed prominently in the newspapers or other suitable media and posted on the website of the Commission, declaring that the institution does not possess the minimum academic standards.

Taking such other action within its powers as it may deem fit and impose such other penalties as may be provided in the Act for such duration of time as the institution complies with the provisions of these Regulations.

Provided that the action taken under this clause by the Commission against any institution shall be shared with all Councils.

(Dr. R. K. Chauhan) Secretary

Provision exists for online filing of affidavits by students and their parents on a web portal created by UGC

(www.antiragging.in/upload/Infopack/AntiRagging_How%20To%20Fill%20Affidavit.pdf)

The same is permanently stored in the data base of UGC and a reference number is given to the students who can take a print of the undertaking and submit to the University. Further, the requirement of the oath commissioner to sign on the affidavit has been done away with vide a circular of the UGC dated 28 May 2013

https://www.antiragging.in/upload/Infopack/Notarising_an_Affidavit.pdf.

The entireinformation may be accessed at <u>www.antiragging.in/site/Infopack.aspx</u>. Students and Parents may file online

affidavits and submit a signed copy to the Department concerned.

(This Affidavit can be submitted online at

(www.antiragging.in/upload/Infopack/AntiRagging_How%20To%20Fill%20Affidavit.pdf) Signed printouts must be submitted to the concerned Department).

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Sr. No.	Particulars	Fees (in Rupees)
1.	Tuition Fee (Yearly)	
a.	M.A./ M.Com / M.Sc. (Mathematics)	5630.00
b.	M.Sc. (Other than Mathematics & Electronics)	11235.00
с.	M.Sc. (Electronics)	14720.00
d.	M.Sc. (Biochemistry) and (Marine Microbiology)	80000.00
e.	M.A.(International Studies)	7000.00
f.	M.B.A. (Financial Services)/ M.B.A.	108265.00
g.	IMBA	72800.00
h.	MCA & Course development fees for MCA	16320.00 and 18400.00
i.	M.Phil	11235.00
j.	M.Phil (for Sciences)	12680.00
k.	P.G. Dip. Applied Plant Science	21670.00
Ι.	P.G. Dip. Clinical Genetics & Medical Lab. Techniques	38850.00
m.	Ph.D.	11025.00
n.	Ph.D. Administrative Fees	11000.00
0.	M.L.I.Sc.	24300.00
р.	B.L.I.Sc.	20840.00
2.	Enrolment Fee	
a)	a) Goa University Students	550.00
b)	b) Outside University Students	2625.00
3.	Gymkhana, Student Union, ID Card Fee	470.00
4.	Student Aid Fund	135.00
5.	Laboratory Fee/ Computer Fee	
a)	Applicable for Ph.D. Students	1100.00
b)	Applicable for Other than Ph.D. Students	890.00
6.	Annual Internet Fee	
a)	Applicable for Ph.D Students	550.00
b)	Applicable for Other than Ph.D Students	260.00
7.	Annual Library Fee	
a)	Applicable for Ph.D. Students	1100.00
b)	Applicable for Other than Ph.D. Students	515.00
8.	Caution Deposit (Refundable)	1930.00
9.	Eligibility Fees	
a)	Indian students from other boards/universities	550.00
10.	Migration Certificate Fee	450.00
11.	Duplicate Migration Certificate	550.00
12.	Cancellation of Migration Certificate (after 6 months)	220.00
13.	Transcripts	
a)	Professional programmes	330.00
b)	General Education programmes	220.00
c)	Attestation of Academic Record	330.00

Fee Structure for foreign students				
Sr. No.	Particulars	Fees Amount (in US Dollars)		
1.	Eligibility Fees	\$ 50 (one time)		
2.	Admission Fees	\$ 500 (one time)		
3.	M.A. and M.Com	\$ 1000 per annum		
4.	M.Sc. and MCA	\$ 2000 per annum		
5.	MBA, MBA (Financial Services) and IMBA	\$ 3000 per annum		
6.	Ph.D.	\$ 1000 per annum		