

POSTGRADUATE STUDIES &
RESEARCH PROGRAMMES

HANDBOOK 2015-2016

#### **IMPORTANT DATES AT THE GLANCE**

Last date for submission of Application Form for Entrance Test/Admission form 04/06/2015

SCHEDULE OF ENTRANCE TESTS

Entrance Test for various Departments (Including Candidates from other Universities 09/06/2015

Morning Session: 10.30 am to 12.00 noon Chemistry, Electronics, B. Lib.

: 10.30 am to 12.30 pm MBA (FS)

Afternoon session I: 2.00 pm to 4.00 pm M.C.A. & Change of Faculty/subject

Test for all Departments.

Afternoon session I: 2.00 pm to 3.30 pm Biotechnology, Economics

Afternoon session II: 4.00 pm to 5.30 pm Biochemistry

Display of the First Provisional List of candidates for Admission (including the waiting list) 11/06/2015

Last date for payment of fees by candidates in the First List 15/06/2015

Display of the Second Provisional List of candidates for Admission (Including the waiting list) 16/06/2015

Last date for payment of fees by candidates in the Second List 18/06/2015

Final List of candidates for Admission 19/06/2015

Last date for Late Admission to Semester – I and payment of fees 22/06/2015

Last date for admission for Semester – III and payment of fees 12/06/2015

# 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. Additional information received after the printing of the handbook will be uploaded on the University website www.unigoa.ac.in.

### **GOA UNIVERSITY**

CHANCELLOR VICE-CHANCELLOR

Smt. Mridula Sinha, Hon'ble Governor of Goa Dr. S. R. Shetye

**DEANS OF FACULTIES** 

Faculty of Languages & Literature Faculty of Social Sciences

Prof. K. Budkuley Prof. N. S. Bhat

Faculty of Natural Sciences Faculty of Life Sciences & Environment

Prof. A. V. Salker Prof. M.K. Janarthanam

Faculty of Commerce Faculty of Management Studies

Prof. Y. V. Reddy Prof. N. Mekoth

Faculty of Medicine Faculty of Engineering
Prof. Pradeep Naik Prof. K. G. Guptha

Faculty of Education Faculty of Law
Dr. Allan Abreo Prin. A. S. Nadkarni

Faculty of Performing, Fine Art & Music Faculty of Design

Shri M. V. Vengurlekar Vice-Chancellor

**ADMINISTRATION** 

REGISTRAR

Prof. V. P. Kamat

CONTROLLER OF EXAMINATIONS
Shri L. Macedo
Shri U. B. Naik

5111 C. D. Na

DEPUTY REGISTRAR (ACADEMIC)

DEPUTY REGISTRAR (GEN. ADMN.)

Shri D.A.E. Rodrigues Shri M. Shreedhara

LIBRARIAN UNIVERSITY ENGINEER

Dr. V. Gopakumar Shri. V. L. Sawkar

HEAD OF COMPUTER CENTRE ASST. DIR. OF PHYSICAL EDN. & SPORTS

Shri M. Chakraborty Shri M. Fernandes

ASSISTANT REGISTRARS

Shri. K. Naik (Academic-PG) Smt S. S. Figueiredo (Exam-Professional)

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Smt. M. Gaitonde (Academic-Colleges)

Shri A. Fernandes (Academic - General)

Smt. S. J. Chari (Exam-PG)

Smt. M. Sawant (Exam-UG)

Smt. B. T. A. D'Mello e Daniel (Legal)

Smt. S. Neurekar (Teaching)

Shri A. Nagarsenkar (Purchases) Shri A. Verenkar (Finance)

#### 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 programs at its affiliated colleges, and postgraduate programs at the 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.

The University recently crossed an important milestone in its history by being reaccredited with Grade A from NAAC. 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.

The committee appreciates the contribution of all those who have directly and indirectly assisted in the publication of this Handbook.

K.S. Bhat A. Shringare S. Girkar N. Kunhanandan K. Naik

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#### **ACADEMIC CALENDAR 2015-2016**

The arrangement for Academic Terms for M.A./M.Sc./M.Com./M.B.A. (FS)/M.C.A/M.Tech/B.Lib/M.Lib for the for the academic year 2015-16 shall be as follows: (on the campus)

Duration	No. of Days
08/06/2015 to 24/11/2015	
15/06/2015	
28/10/2015	90 days
21/09/2015 to 23/09/2015	03 days
29/10/2015 to 01/11/2015	04 days
11/11/2015 to 13/11/2015	03 days
02/11/2015 to 23/11/2015	11 days
25/11/2015 to 05/05/2016	
25/11/2015	
13/04/2016	90 days
28/12/2015 to 01/01/2016	05 days
14/04/2016 to 17/04/2016	04 days
18/04/2016 to 02/05/2016	11 days
06/05/2016 to 05/06/2016	31 days
06/06/2016	JI days
	08/06/2015 to 24/11/2015  15/06/2015 28/10/2015 21/09/2015 to 23/09/2015 29/10/2015 to 01/11/2015 11/11/2015 to 13/11/2015 02/11/2015 to 23/11/2015  25/11/2015 to 05/05/2016  25/11/2015 13/04/2016 28/12/2015 to 01/01/2016 14/04/2016 to 17/04/2016 18/04/2016 to 02/05/2016  06/05/2016 to 05/06/2016

**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 Course (degree or diploma), shall be required to have a **minimum cumulative attendance of 75% of the total lectures and practicals** prescribed for the course 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.

### Academic Terms MBA/Integrated MBA for the academic year 2015-16

#### **Commencement and End of the Term**

01/07/2015 - 30/09/2015  $1^{st}$  and  $5^{th}$  Term 01/10/2015 - 04/01/2016  $2^{nd}$  and  $6^{th}$  Term 05/01/2016 - 31/03/2016  $3^{rd}$  and  $7^{th}$  Term

01/04/2016 – 30/06/2016 4<sup>th</sup> Term

#### Vacation/Breaks

21/09/2015 to 23/09/2015 (03 days) Ganesh Chaturthi Break

11/11/2015 to 13/11/2015 (03 days) Diwali Break

28/12/2015 to 01/01/2016 (05 days) Christmas Break 06/05/2016 to 05/06/2016 (31 days) Summer Vacation

# Academic Term for PG Dip. in Clinical Genetics & Medical Laboratory Techniques Programme.

Last date of receiving application:

Display of 1st Merit list:

15. 06. 2015

Last date for payment of fees by the candidates in the First list: 22. 06. 2015

Display of Second merit list:

23.06.2015

Last date for payment of fees by the candidates in the First list: 26. 06. 2015

#### 1st term:

Teaching begins : 01. 07. 2015 Teaching ends : 10. 10. 2015

Ganesh Chaturthi Break: 21. 09. 2015 to 23. 09. 2015 Diwali break: 11. 11. 2015 to 13. 11. 2015 Exam. and assessment: 26. 10. 2015 to 23.11. 2015

#### 2nd term:

Teaching begins: 01. 12. 2015 Teaching ends: 19. 03. 2016

Christmas Break: 28.12. 2015 to 01.01.2016 Exam. and assessment: 01.04. 2016 to 02.05.2016

#### 3rd term:

Internship: 1.07. 2016 to 31.12. 2016

# **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 course 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 course 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 Course 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 specialisations at M. Sc. (Part II).

#### **Programme: MCA**

Admission to the first Semester of the 3 year, six semester, full time course 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 course 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.

#### **Programme: M. Tech in Computer Science**

B.E./B.Tech in Computer Science/Information Technology/Electronics/Electronics and Telecommunication, or equivalent with 55% aggregate marks or equivalent CGPA 6.0, or 50% or equivalent CGPA 5.5 for reserved category, from a recognized University.

#### OR

MCA/MSc (IT) or equivalent with 55% marks, or equivalent CGPA 6.0, or 50% or equivalent CGPA 5.5 for reserved category, from the faculty of Technology/Engineering/Science of a recognised University. In addition, all candidates shall have to undergo an Entrance Test conducted by the respective department. The syllabus for the Entrance Test shall be prescribed by the University from time to time. Those having a valid GATE/NET score in the subject of Computer Science/Engineering shall be exempted from the Entrance Test.

#### **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 20, out of which 9 seats under reserved categories will be filled as per guidelines of Govt. of Goa. 6 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 6 general category seats the first four will be allotted to Serial No. 1 in the merit list in the respective specialization. Remaining two 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 course 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 course. 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 courses 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 20–25<sup>th</sup> July each year) will be announced generally in the 1<sup>st</sup> 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 courses 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.	Courses	Total No. of Seats	sc	ST	ОВС	Differently Abled	Other Indian Universities	Wards of Ex-Serviceman
Α	P. G. Courses*							
Facul	ty of Language and Literature							
a.	English	40	1	5	11	1	2	
b.	French	10	1	1	3		1	
c.	Hindi	40	1	5	11	1	2	
d.	Konkani	40	1	5	11	1	2	
e.	Marathi	30	1	4	8	1	2	
f.	Portuguese	10	1	1	3		1	
Facul	ty of Social Sciences				1	T		
a.	Economics	30	1	4	8	1	2	
b.	History	50	1	6	14	1	2	1
c.	Philosophy	15	1	2	4		1	
d.	Political Science	25	1	3	7	1	2	
e.	Sociology	20	1	2	5	1	2	
f.	International Studies	15	1	1	4		1	
g.	Library and Information Studies (B.LIB)	25	1	3	7	1	2	
.h.	Library and Information Studies (M.LIB) Faculty of Natural Sciences	20	1	2	5	1	2	
a.	Chemistry	72	1	9	19	2	2	1
b.	M.C.A.	60	1	7	16	2	2	1
c.	M. Tech. in Computer Science	12	1	1	3	1	1	
d.	Earth Science	25	1	2	5	1	2	
e.	Electronics	15	1	2	4		1	
f.	Mathematics	25	1	2	5	1	2	
g.	Physics	25	1	3	7	1	2	
Faculty	of Life Sciences & Environment							
a.	Botany	25	1	3	7	1	2	
b.	Marine Science	20	1	2	5	1	2	
c.	Marine Biotechnology	20	As pe	r Cent	ral Gov	ernment Rule	Natio	nal Adms.
d.	Biotechnology	20	1	2	5	1	0	
e.	Microbiology	20	1	2	5	1	2	
f.	Marine Microbiology	16	1	2	4		1	
g.	Zoology	25	1	3	7	1	2	
h.	Biochemistry	20	1	2	5	1	2	
Facul	ty of Commerce	1	I	ı	I	I		
a.	M.Com.	60	1	7	16	2	2	1
b.	MBA (FINANCIAL SERVICES)	60	1	7	16	2	2	1
Facul	ty of Management		1	ı	Π	<u> </u>		
a.	МВА	60	1	7	16	2	All India	1
b.	Integrated MBA (U. G.)	30	1	4	8	1	2	
D.	P. G. Diploma							
a.	Clinical Genetics & Medical Lab. Tech.	20	1	2	5	1	2	

<sup>\*</sup>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 courses 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 courses 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 courses 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 courses 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 courses of study shall be reserved for differently abled candidates (as per State Government directives).

1% of total seats subject to minimum one seat for admission to various courses of study shall be reserved for Ex- servicemen.

**10%** of seats, subject to a **maximum of two seats and a minimum of one seat** in each course of study, except the MCA & MBA courses 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.
  - ii. 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

- Candidates should have eligibility to study Post-Graduate courses 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 course 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 course 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 1½ 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.
- (ii) 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 Graguate 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 Graguate 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 course.
- 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 (Relevant Information)**

**OA-18.3** (a) The instructional scheme for M.A. M.Sc., M.Com. Degree Programmes is based on a system of time-integrated units called Credits. To be eligible for the award of a Degree under the Choice Based Credit System (CBCS) a student shall earn a minimum of 80 Credits.

(b)These Credits shall comprise Core Courses, Optional Courses and Dissertation. Every Programme shall have adequate number of Core Courses to choose 32 to 40 Credits as recommended by the Board of Studies (BoS) in the concerned subject and approved by the Academic Council, and adequate number of Optional Courses. Dissertation shall be a compulsory component.

**OA-18.3.1** One Credit Theory Course shall be equivalent to 15 contact hours of learning activities such as lectures, group discussion, seminars, problem solving, tutorials, assessment and such others.

- **OA-18.3.2** One Credit Practical Course shall be equivalent to 45 clock hours of laboratory /field work/study tour, that is, 15 practicals, each of 3 clock hours duration, or its equivalent.
- **OA-18.3.3** A student shall be eligible for the award of Master's Degree on successful completion of 80 Credits. A student is also permitted to obtain additional Credits. However, 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.
- **OA-18.3.5** A student must obtain 60 Credits from the parent Department, for the specific degree for which the student is registered, of which the minimum number of Core Credits shall form part. The remaining 20 Credits may be earned by the student by opting for Courses either from the parent Department or from outside the Department / University. These Courses shall be referred to as Optional Courses.
- **OA-18.3.6** 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.
- **OA-18.3.9** Each Course may consist of 1 to 6 number of Credit(s). The Courses may cover only theory, theory and practical or only practical or any other activity as specified under OA-18.3.7.
- **OA-18.3.10** Dissertation shall be of 12 Credits; in Commerce it may include 4 Credits of Summer Training.
- **OA-18.4** The Departmental Council (DC) or Departmental Faculty Committee (DFC) constituted for thispurpose in the colleges, shall be responsible for the proper implementation and conduct of the Credit-based Master's Degree Programme(s). The Principal of the College, Co-ordinator of the Course and teachers teaching the Programme shall constitute the DFC.
- **OA-18.5** 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, SEA for Core Courses shall be conducted by the University.
- **OA-18.5.2** (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.
- **OA-18.5.3** 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.
- **OA-18.6** 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.
- **OA-18.6.9** To pass in the dissertation a student has to secure a minimum grade of 'E' as indicated under OA-18.8.1

**OA-18.6.10** 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.

**OA-18.7** Evaluation of the Courses shall be by Intra-Semester (ISA) and Semester End Assessment(SEA). Each ISA shall be evaluated for 20% of the total marks of the Course. Total number of ISA for each Course shall be two irrespective of the number of Credits. However for 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 assessment with the least score shall not be considered for ISA. All internal assessments shall be completed by the last teaching day of the Semester.

**OA-18.7.3** A One Credit Course shall carry 25 marks. All other Courses shall carry marks proportionate to the number of Credits.

**OA-18.7.4** The weight age for the continuous ISA and SEA in both theory and practical Courses shall be40% and 60% respectively.

**OA-18.7.6** 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.

**OA-18.8.1** The percentage awarded in the ISA and SEA shall be added for awarding the grade for each Course, as indicated in the table below:

Range of percentage scored	Grades	Grade Points
75 - 100	0	6
65 – <75	Α	5
55 – <65	В	4
50 – <55	С	3
45 – <50	D	2
40 – <45	E	1
0 - <40	F	0

**OA-18.8.2** Every student shall have to secure a minimum of 'E' grade to pass the Course.

**OA-18.8.3** Provisions of OA 5.16 shall not be applicable to Credit-based Masters Programmes.

**OA-18.8.4** (a) Students who do not secure a minimum of 'E 'Grade in Core Courses shall have the option of answering SEA in theory, as well as practical component, where applicable, 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 theory, as well as practical component where applicable, 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 ISA and SEA is compulsory for passing. When SEA supplementary is answered, the ISA score shall be carried forward.

**OA-18.8.7** For each Course a student securing 'F' Grade in the Course shall not be entitled to earn any Credits for that Course and provisions of OA-18.8.4shall be applicable.

**OA-18.8.11** 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.

**OA-18.8.12** Students shall have to acquire minimum of 80 Credits and be registered for the Master's Programme for a minimum of four Semesters, to be eligible for award of a degree. On any account a student shall not be allowed to register for less than 10 Credits and more than 25 Credits in a Semester.

**OA-18.10.2** A student shall address his/her grievance(s) to the HoD/ Principal, who shall place the same before the DC/DFC for resolution. If the grievances are in the Course(s) taught by the Head of the Department, the grievances shall be addressed to the Dean of the Faculty.

**OA-18.10.3** If the student continues to feel aggrieved, the grievance application shall be referred by the Departmental Council to the Grievance Committee.

**OA-18.10.4** If the Grievance Committee finds that there is a *prima facie* case, it may refer the respective answer-scripts/ assignments, to an expert outside the University, for which the student shall have to pay the prescribed fee. The result of such an evaluation shall be final and binding.

**OA-18.10.5** The decision of the Grievance Committee shall be communicated to the student within one month of his/her filing of the grievance.

#### **ORDINANCE OA-19 GOVERNING PH. D. DEGREE**

**OA-19.1** (i) A Ph.D. degree is awarded for original work and for academic attainment in a chosen field, on the basis of scientific investigations. The relevance of applied developmental/interdisciplinary work of innovative nature is equally recognized. The University desires that the evaluation of a thesis for the award of a Ph.D. degree by the University is based on the quality of research work embodied in the thesis submitted by the candidate.

- (ii) A candidate desirous of seeking registration for a Ph.D. degree of this University shall have to qualify in the Entrance Test conducted for the purpose during the period July/August. The number of seats for the Ph.D. Programme in respective subjects, along with the name of the Guides and area of research shall be notified by the University.
- (iii) The Entrance Test for admission to the Ph.D. Programme shall consist of two Papers: One general aptitude test (on lines of UGC NET) and the other on the subject in which the candidate desires to take admission. The procedure for the tests and exemption shall be as provided in subsections below.
- (a) Paper I: This shall be a Research Aptitude Test on the lines of the CSIR-UGC NET examination and shall be different for students of the Faculties of Science and for students of Faculties of Languages and Humanities, Commerce, Management Studies, and Social Sciences. This Paper shall be of two hours duration having multiple choice questions (MCQ) and shall carry a total of 100 marks.
- (b) Paper II: This shall be subject specific and shall be of two hours duration and shall carry a total of 100 marks. This Paper shall consist of multiple choice/ objective type questions for 50 marks and theoretical/descriptive questions for 50 marks.
- (c) Syllabi for the Papers shall be as per CSIR-UGC/UGC NET examinations.

- (d) In case of subjects which are not included in the NET, the concerned Department shall set the syllabus.
- (e) Admission to the Ph.D. Programme shall be twice a year: In July/August and in January. Admission in January is for those candidates who are exempted from Entrance Test. However, the facility is also extended to those Candidates who are successful in the previous Entrance Test.
- (f) The Entrance examination shall be followed by a personal interview in the concerned Department. Those faculty members and guides of Research Institute/Research Centre (RI/RC) who announced the vacancies shall be the members of the interview board. The number of vacancies shall depend on the number of existing students per faculty member, the available specialization among the Guides, and the research interest of the candidate as indicated in the application. Grading the candidates for admission to Ph.D. programme shall be as per the procedure given in Ordinance.
- (g) Subsequent to the interview, the Head of the Department shall display the details of admission process in selecting the candidates as per the table given in Annexure-I.
- (iv) **Exemption from the Entrance Test.** The following candidates shall be exempted from appearing for the Entrance Test and shall be eligible to appear for an interview in the concerned Department. There are two categories under this group.

**Category I:** Candidates who have qualified in the examinations of apex bodies such as CSIR-UGC NETJRF/lecturership, SET/SLET examination of different Indian states, JRF examination of ICAR/ICMR/DBT/GATE, DST-Inspire fellowship, or regular M.Phil degree holders qualified through entrance test.

**Category II:** Citizens who have excelled in their field of interest and whose eligibility shall be assessed by a sub-committee appointed by the Academic Council.

- (v) Application for inter-disciplinary research and for change of subject/faculty shall be considered on the basis of the candidate's proven ability and the results of the Entrance Test/qualifying NET examination in any allied subject, followed by a personal interview in the Department, where the registration is sought.
- (vi) The Department Council shall formally allocate a selected candidate to the respective Guide depending on the number of vacancies announced by the Guide.
- (vii) Only the predetermined number of students declared by the University on its website, shall be admitted to the Ph.D. programme in the respective Departments.
- (viii) The admission to the Ph.D. programme shall be as per State Reservation Policy.
- (ix) A candidate from another University seeking Ph.D. registration in this University shall obtain a provisional statement of eligibility from this University by applying for the same in the prescribed form and paying the prescribed fees. A provisional statement of eligibility may be issued to the candidate if found eligible for registration, in a particular year.
- (x) A list of teachers recognized by the University as Guides for the Ph.D. degree in various subjects together with the names of the University Departments/Research Centres/ Research Institutions to which they are attached shall be available for reference in the University Office/web site.

- (xi) Every candidate shall have to reside within the territorial jurisdiction of Goa University for the entire period of research leading to Ph.D. degree.
- (xii) In special cases, the Academic Council may permit the candidate to reside outside the territorial jurisdiction of Goa University for the conduct of research work on the recommendation of the Department Research Committee (DRC) constituted as specified in OA-19.3(ii), the HOD and the Dean of the concerned faculty.

#### **OA-19.2 Eligibility**

- (i) A candidate who has obtained a Master's Degree by papers securing at least second class with a minimum of 55% marks (5% relaxation for SC/ST/PD/VH candidates) or equivalent grade and/or by research from Goa University or from any other University recognized by Goa University is eligible to register for the Ph.D. Degree.
  - However, candidates who are in-service teachers of Goa University and its affiliated colleges appointed under earlier service conditions, with a minimum of 50% marks shall be considered as eligible to register for the Ph.D. Degree.
- (ii) Candidates who have passed the professional examinations conducted by the Institute of Chartered Accountants of India are eligible to apply for a Ph.D. programme in the faculty of Commerce, subject to the conditions, that the candidate has:
- (a) A B.Com. Degree recognized by Goa University.
- (b) Passed the Degree examination at least in the second class with 50% of aggregate marks in the first attempt.
- (c) Passed the professional examination of the Institute of Chartered Accountants of India with at least a second class.
- (iii) The subject of research shall be that which relates to the main branch/ branches of knowledge chosen by the candidate for the post-graduate degree. However, a candidate wishing to conduct research in a subject of an interdisciplinary character shall also be eligible for registration. In this case, the candidate shall submit an application to the Guide for permission. The application shall be considered by following the procedure set out under OA-19.1 (ii).

#### (iv) Special Eligibility:

Candidates who have Master's Degree in Subjects/ Faculties whose nomenclature does not correspond to the Programme/ Faculties of this University are eligible to apply for Ph.D. Programme under the provision of Special Eligibility. A candidate who desires to register for Ph.D. under the provision of Special Eligibility shall submit an application to the Registrar for permission through the University Department /Research Centre/ Research Institution where the research work is proposed to be conducted. The application must be accompanied with the curriculum of the Masters Programme completed by the candidate, along with the profile of the Institution and details relating to recognition by Association of Indian Universities (AIU) and UGC. The Special Eligibility Committee constituted by the Vice-Chancellor for this purpose shall decide upon the application.

#### OA-19.4 Period

- (i) Full-time research scholars shall have to conduct research for a minimum period of four terms (2 years). The candidate shall have to submit the thesis in eight terms (4 years). However, a candidate can apply for extension of registration, giving reasons, through the Guide(s) to the DRC, which may recommend the extension to the Vice-Chancellor for a period of two terms at a time, and a maximum period of four terms. The registration of a candidate, who is not able to submit the thesis within 12 terms (6 years) from the date of registration, shall stand terminated and the candidate shall have to apply for registration afresh. However, under exceptional circumstances, the Vice-Chancellor on the recommendation of the DRC may grant a maximum extension of three months to submit the thesis. In case of re-registration, the candidate is allowed to submit the thesis after 6 months from the date of re-registration.
- (ii) Part-time research scholars shall have to conduct research for a minimum period of six terms (3 years). The candidate shall have to submit the thesis in not more than fourteen terms (7 years). However, the candidate can apply for extension of registration giving reasons through the Guide(s) to the DRC, which may recommend the same to the Vice-Chancellor, for a maximum period of two terms. However, under exceptional circumstances, the Vice Chancellor on the recommendation of the DRC may grant a maximum extension of three months to submit the thesis. The registration of a candidate, who is not able to submit the thesis within the stipulated extension period, shall stand terminated. The candidate shall have to apply for registration afresh, if so desired. In case of re-registration, candidate is allowed to submit the thesis after 6 months from the date of re-registration.

#### **OA-19.7 Fees**

All the fees to be paid by the candidate towards the Ph.D. programme shall be as per the relevant Ordinances / Notification issued by the University from time to time.

#### **OA-19.8 Examination**

- (i) A Candidate shall publish at least one research paper in a referred journal, based on the research findings of the Ph.D. work, before submission of the pre-synopsis presentation, evidenced by acceptance letter /pre-print/ re-print of the paper shall be submitted.
- (ii) The Candidate shall have to give a pre-synopsis seminar before the DRC. The Guide shall invite the members of Departmental Council/Faculty of Research Institution/Research Centre/research scholars/students for the seminar. If the DRC finds the work carried out is adequate for the award of Ph.D degree, the student shall be permitted to submit the synopsis. During the presynopsis presentation, the candidate is allowed to make minor changes in the title of the thesis and minor modifications in the objectives.
- (iii) Before submission of the thesis, the candidate shall submit to the Controller of Examinations through the Guide a statement giving the title and ten copies of synopsis, with bibliography, along with the prescribed fee.
- (iv) The candidate shall submit four printed copies of thesis and a soft copy within six months after submission of the synopsis. The period of six months shall be within the overall registration period of twelve terms (six years) and fourteen terms (seven years), in case of full time and part time scholars respectively. If a candidate is unable to submit the thesis during the prescribed

period he/she shall have to seek permission from the Vice-Chancellor as specified under OA 19.4

- (v) The thesis shall embody the result of the candidate's research and shall state whether the work is based on the discovery of new facts, or of new relations of facts observed by others, and how the work contributes to the general advancement of knowledge. The candidate shall forward a statement indicating the sources from which the information has been derived and the extent to which the findings are based on the work of others, and shall indicate the portion(s) of the thesis that are claimed as original. Where a candidate presents a joint work, individual contribution by the candidate shall be clearly stated to distinguish from the portions contributed by other collaborator(s). The statement shall be certified by the Guide and the Co-Guide as the case may be. The thesis shall be printed in English and if the subject matter of the thesis relates to an Indian/ Foreign Language it shall be printed in that language, with the prior permission of the DRC.
- (**Note**: Indian languages shall include languages given in the 8<sup>th</sup> schedule of the Constitution of India, and Foreign Languages shall include the language in which the research work has been carried out.)
- (vi) The candidate shall not be permitted to submit in the thesis, any work for which a degree or diploma or other academic award has been conferred on her/him in this or in any other University or Body. A candidate however, shall not be precluded from incorporating work which she/he had already submitted for a degree or diploma or other academic award in this or in any other University or Body in a thesis covering a wide field, provided that she/he shall indicate in a written statement in the prescribed format to accompany in the thesis, any work that has been incorporated.
- (vii) Four print copies along with a soft copy of the thesis fulfilling all the above said conditions shall be forwarded to the Controller of Examinations. During the initial submission, the thesis shall be in soft bound form, with no spiral binding, and final hard binding of one copy of the thesis shall be done before the Viva-voce examination. Changes, if any, suggested by the examiners shall be incorporated in the thesis before final binding. A thesis approval sheet in the prescribed format shall be signed by the Board of Viva-voce Examination and enclosed along with the thesis, before submitting the final hard bound copy to the controller of examinations
- (viii) Each candidate shall submit with the thesis, a certificate from the Guide(s) that the thesis submitted is a record of research work done by the candidate during the period of study and that it has not previously formed the basis for the award to the candidate of any degree, diploma, or other similar titles. The certificate shall also include a statement from the Guide(s) indicating the extent to which the thesis represents independent work on the part of the candidate.
- (ix) The two Examiners appointed to evaluate the thesis as per OA-19.6(vi) shall send an evaluation report in the prescribed format (B-1) to the Controller of Examinations in a confidential cover within two months of receipt of the thesis. Copy of the report shall also be sent to the Guide, who shall be the convenor of the Viva-Voce Board of Examiners. The report shall include:
  - (a) A critical assessment of the work as embodied in the thesis and an evaluation of the work in terms of its contribution to the advancement of knowledge.
  - (b) List of questions to be asked or points to be clarified in the Viva-voce examination.
  - (c) A definite recommendation as to whether the thesis attains or not, the required standards for the award of Ph.D. Degree.
  - (d) A checklist containing the overall recommendations on the thesis duly filled in.

# OB-12 Ordinance regarding the degree of Master of Philosophy (M.Phil.)

- **OB-12.1** The degree of Master of Philosophy (M.Phil.) will be awarded in the following faculties:
  - (1) Languages & Literature and Social Sciences
  - (2) Natural Sciences
  - (3) Life Sciences and Environment
  - (4) Commerce
  - (5) Management Studies
- **OB-12.2** A candidate for being eligible for admission to the M.Phil. degree course 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. Course shall be as stipulated by the University.
- **OB-12.4** The enrolment to the M.Phil. course 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 course shall be of **one** year consisting of Semesters I and II.
- **OB-12.6** The M. Phil. course 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 Course.
- **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 course in two semesters. If a candidate isunable to complete the entire course in double the duration, his/ her registration to the M.Phil course shall stand cancelled.
- **OB-12.11** The format of the dissertation shall be the same as that of the Ph.D. thesis. A candidateshall 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
- **OB-12.12** The detailed syllabi of the theory papers shall be prepared by the respective Board of Studies.

the award of any degree or diploma of Goa University or elsewhere".

- **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 course shall be English except for language courses 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 course. 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 11<sup>th</sup> February, 2004.
- **OB-12.20** In case the candidate fails in the Dissertation, he/she shall be declared failed in the M. Phil course.

- **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

Vice Chancellor - Chairman
 Dean of the Faculty concerned - Member
 Head of the Department - Member
 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.

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#### **REFUND OF TUITION FEES**

- 1. In the event of a student withdrawing admission before the commencement of the course, the waitlisted candidate will be granted admission against the vacant seat. The entire fee collected from the student, after a deduction of the processing fee of not more than Rs. 1000/- (one thousand only) shall be refunded by the Institution/University to the student withdrawing from the programme.
- 2. If the student leaves after joining the course and if the seat consequently falling vacant has been filled by another candidate by the last date of admission, the Institution shall return the fee collected with proportionate deductions of monthly fee and proportionate hostel rent, where applicable.
- 3. No refund of fee is admissible if the student withdraws admission on the last date or later. Above rule is applicable to all items of fee except refundable deposits.
- 4. Students who have already been admitted to a Department/Centre of the University and have paid the fee and are subsequently admitted to another Department/Centre on or before the last date of admission will have to pay the fee for the final admission and claim refund of fee paid earlier.

All other cases of refund of fees will be decided on a case to case basis, based on its merits.

# **FACULTY OF LANGUAGES & LITERATURE**

Dean: Prof. K. J. Budkuley

Department of English	Courses Offered	Intake	Fees (Rs.)
Established: 1965(CPIR)	M. A.	40	5100.00
Code: EG	M.Phil		10200.00
	Ph. D.		10000.00

The Department offers postgraduate course 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: Budkuley, K. J

#### **List of Faculty & Specialisation**

**Professors** 

**Bhat, K. S**, Ph. D. (Mangalore University) (Literary Theory, Critical Theory & Cultural Studies). **Budkuley, K. J**, Ph. D. (Goa University) (British Poetry, Culture & Gender Studies, Indian Literature and Translation 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).

	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
EGO111	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
EGO117	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	Courses Offered	Intake	Fee (Rs.)
and Francophone Studies	M. A.	10	5100.00
Established: 1965 (CPIR)	Ph. D.		10000.00
Code: FR	Certificate/Diploma/		
	Advanced 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 courses 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).

	COMPULSORY COURSES	No. of Credits
FRC-101	Language Skills	4
FRC-102	Theory and Practice of Translation	4
FRC-103	Textual analysis	4
FRC-104	Study of French Novel	4
FRC-105	Francophone Studies	4
FRC-106	French Culture and Civilization	4
FRC-107	General Linguistics	4
FRC-108	Phonetics Morphology and Syntax	4
	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-104	Semantics and Lexicology	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 <u>OR</u>	2
	Literature/Culture Studies Project	
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

# **Certificate and Diploma Courses 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 Established: 1965(CPIR) Code: HN	Courses Offered M.A. M. Phil.	Intake 40 10	Fee (Rs.) 5100.00 10200.00	
5535, 111,	Ph. D.		10000.00	

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: Mishra R.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 Submitted Hindi Kahani and Criticism).

Semester I		
Compulsory course		No. of Credits
HNC 01	Linguistics	4
HNC 02	Medieval Poetry, Practical Criticism	4
Optional Course		
HNO 01	History of Hindi Literature: Aadikal, Bhaktikat & Ritikal	4
HNO 02	Hindi Story	4
HNO 03	Indian Poetics	4
HNO 04	Folk Literature	4
Semester II Compulsory course		
HNC 03	Modern Poetry, Practical criticism	4
HNC 04	Hindi Novel	4
Optional Course		
HNO 05	History of Hindi literature, Aadhunik Kal	4
HNO 06	Functional Hindi	4
HNO 07	Western Poetics	4
HNO 08	Comparative literature	4

Semester III		
Compulsory course		No. of Credits
HNC 05	Study of Special- Author - Ajneya	4
HNC 06	Critics & Criticism	4
<b>Optional Course</b>		
HNO 09	Media & Journalism	4
HNO 10	Translation	4
HNO 11	Another form of Modern Prose	4
HNO 12	Indian literature	4
Semester IV		
Compulsory course		
HNC 07	Drama & Theater	4
HNC 08	Contemporary Hindi Poetry, Practical Criticism	4
Optional Course		
HNO 13	Literature, Thought & Philosophy	4
HNO 14	Hindi language, Script & Grammer	4
HNO 15	Western Poetics	4
HNO 16	Utter Aadhuynik Vimarsh	4

Department of Konkani	Courses Offered	Intake	Fee (Rs.)
Established: 1987	M.A.	40	5100.00
Code: KK	Ph.D.		10000.00

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: Prienkar P.

#### **List of Faculty & Specialisation**

Associate Professors

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

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

#### **Assistant Professor**

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

# Visiting Lecturer

**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).

COMPULSORY COURSES		No. of Credits
KKC-101	Linguistic Study of Konkani	4
KKC-102	Study of Old Konkani Literature(16 <sup>th-</sup> 17 <sup>th</sup> 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	
KKO-201	Konkani Media	2
KKO-202	Film Study	2
KKO-203	Konkani Language Movement	4
KKO-204	Research Methodology	4
KKO-205	Translation: Theory and Practice	4
KKO-206	Feminist Literature	4
KKO-207	Konkani Literature from Kerala	2
KKO-401	Konkani Folklore	4
KKO-402	Functional Konkani with reference to Printing & Editing	2
KKO-403	Literary Konkani and Makers of Literary Konkani	2
KKO-404	Modern Konkani Poetry	4
KKO-405	Creative Writing	2
KKO-406	Prosody and Poetics	2
KKO-407	Konkani Tiatr	2
KKO-408	Graminn Sahitya	2
KKO-409	Critics & Criticism	4

Department of Marathi	Courses Offered	Intake	Fee (Rs.)
Established: 1970 (CPIR)	M.A.	15	5100.00
Code: MR	M.Phil.	15	10200.00
	Ph.D.	15	10000.00

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: Sawant V. D

# **List of Faculty & Specialisation**

Professors:

**Sawant, V. D**, Ph.D (Shivaji University) (Modern Forms of Literature, Literary Theory and Criticism, Novel as a form of Literature).

Associate Professor

Kanolkar, B. G, Ph.D. (Goa University) (Modern Forms of Literature and Folk Literature).

Assistant Professor (S.S.)

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

	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 (B. D. Satoskar)	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 <sup>th</sup> 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
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

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 OB-10(A).

Department of Portuguese Established: 1987 Code: PR	Courses Offered M.A. M. Phil. Advanced Diploma Diploma of Proficiency Certificate of Proficiency I	Intake 10 05 25 25	Fee (Rs.) 5100.00 10200.00
	Diploma of Proficiency Certificate of Proficiency I	25 25	
	Certificate of Proficiency II	25	

The Department of Portuguese, 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 has restructured its language courses according to the Common European Framework (CEF) and offers various Certificate and Diploma Course 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 Courses 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 & Specialisation:

Assistant Professor:

**D'Lima, M. M. N**, M.Sc. Physiology (Bombay University) 1976, M.A. in French (Goa University) 2004, and M.A. in Portuguese (Goa University) 2008. Translator accredited by the Consulate General of France in Mumbai and the Belgian Consulate in Mumbai.

**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).

### Scheme of Instruction (Semester System) All compulsory courses are taught in Portuguese

COMPULSORY COURSES		No. of Credits
PRC 101	Introduction to Literary Studies	4
PRC 102	History of Portuguese Literature I	4
PRC 103	History of Portuguese Literature II	4
PRC 104	History of Portuguese Language	4
PRC 105	Introduction to Portuguese Linguistics	4
PRC 106	Introduction to Portuguese Culture	4
PRC 107	Portuguese Literature I	4
PRC 108	Portuguese Literature II	4
PRC 109	Writing and Communication Skills	4

PRC 110	Creative Writing	4
OPTIONAL COURSES		No. of Credits
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 115	Dissertation	12
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
PRO 417	Western Music IV	1
ITO 101	Italian Language level I	4
ITO 102	Italian Language level II	4

<sup>\*</sup>Portuguese Language Courses are only for students of other Departments Dissertation (PRD) equivalent of three optional courses (optional). Language laboratory facility is also available.

#### **FACULTY OF SOCIAL SCIENCES**

Dean: Prof. N. S. Bhat

Department of Economics Established: 1968 (CPIR)	Courses Offered M.A.	Intake 30	Fee ( Rs.) 5100.00
	M.Phil.	05	10200.00
Code: EC	Ph.D.		10000.00

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: Noronha, S. M

### **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).

### Scheme of Instruction(Semester System) (Choice Based Credit System)

COMPULSORY COURSES		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
OPTIONAL COURSES		
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	12
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)

Established: 1967 (CPIR)	M.A.	50	5100.00
Code: HS	M.Phil. Ph.D.		10200.00 10000.00

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: Bhat, N. S.

#### **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).

### Scheme of Instruction (Semester System) Choice Based Credit System

	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. 1200)	4
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
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

Department of Philosophy	Courses Offered	Intake	Fee ( Rs.)
Established: 1967 (CPIR)	M.A.	15	5100.00
Code: PS	M. Phil.	05	10200.00
	Ph.D	08	10000.00
Department of Philosophy Established: 1967 (CPIR) Code: PS			

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. While 40 credits are compulsory from the Department of Philosophy, alongwith Dissertation with 12 credits as compulsory, students can earn upto 20 credits from optional courses of other Departments. In addition to MA programme, the department offers M.Phil. and Ph.D. programmes as well.

#### Head of Department: U. A. Vinay Kumar

#### **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).

### 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	Indian 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-114	Aristotelian Logic	4
PYO-115	Husserlian Phenomenology	4
PYO-201	Heideggar	4
PYO-301	Dissertation	12
PYO-302	Symbolic Logic	4
PYO-303	Metaphysics of World Religions-I	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	Courses Offered	Intake	Fee (Rs.)
Established: 1973	M.A.	25	5100.00
Code: PS	M.Phil.		10200.00
	Ph.D		10000.00

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) (Democratic Politics, Political Theory).

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

### 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 & Sk	ills 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	
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	International Relations Group		
PS212	India's Foreign Policy	4	
PS213	International Political Economy	4	
PS214	Peace and Conflict Studies	4	
PS215	Maritime Security in Indian Ocean	4	

Department of Sociology	Courses Offered	Intake	Fee (Rs.)
Established: 1974 (CPIR)	M. A.	20	5100.00
Code: SO	M.Phil.		10200.00
	Ph. D.		10000.00

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 through trans-disciplinary perspectives. 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)

Associate Professor

**Siqueira, A.,** M. A (Bombay University) (Sociology of Culture, Tourism and Some Issues in Goan Society).

Assistant Professor

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

### Scheme of Instruction (Semester System) Choice Based Credit System

	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
	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 are compulsory.

Centre for Latin American Studies	Courses Offered	Intake	Fee (Rs.)
Established: 1988	M. A.	15	5100.00
Code: LA	M.Phil.		10200.00
	Ph. D.		10000.00

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. (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 course is to introduce the students, through an inter-disciplinary 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 course 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.

### Scheme of Instructions (Semester System) Choice Based Credit System

COMPULSORY COURSES		No. of Credits
IRC101	Theories in International Relations	4
IRC102	International Relations: Concepts and Perspectives	4
IRC103	International Political Economy	4
IRC104	International Law	4
IRC105	International Organisation	4
IRC106	India's Foreign Policy	4
IRC107	US Foreign Policy in Perspective	4

IRC108	Research Methodology in International Relations	4
	OPTIONAL COURSES	
IRO101	Understanding Geopolitics	4
IRO102	Peace and Conflict Studies	4
IRO103	Latin America and the Caribbean in World Affairs	4
IRO104	Africa in World Affairs	4
IRO105	Government and Politics of South Asia	4
IRO106	Russia in World Affairs	4
IRO107	China in International Affairs	4
IRO108	Society, Politics and Foreign Policy of Brazil	4
IRO109	Politics, Society and Foreign Policy of Australia	4
IRO110	Contemporary Issues in International Relations	4
IRO111	Survey of Latin American History	4
IRO112	Government and Politics in Latin America	4
IRO113	Political Economy of Latin America	4
IRO114	Sociology of Latin America	4
	Dissertation	12

Library and Information Science	Courses Offered	Intake	Fee (Rs.)
Established: 2013	B. L.I.Sc.	25	18900.00
Established: 2013 Code: BL Code: ML	M. L.I.Sc.	20	22050.00

The Library and Information Science Department proposes 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 courses 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

B.L.I.Sc. 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

M. L.I.Sc.
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, Informatics & 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 Course and shall carry 12 Credits.	

Centre for Women's Studies	Courses offered	Intake	Fee (Rs)
Established: 1988	MA	15	5100.00
Code: WS	PhD		10000.00

In Charge: Desouza, S.

#### List of Faculty & Specialisation:

List of Faculty and Specialization

#### <u>Assistant Professor</u>

Desouza Shaila, PhD (TISS, Mumbai), Gender: Development, Health, Welfare, Empowerment

Women's Studies in India, is an interdisciplinary field of feminist scholarship and is a comparatively new discipline within the formal University system. Goa University is one of the forerunners in this respect, as it initiated Women's Studies in the 7<sup>th</sup> Plan through the establishment of a UGC Centre as early as 1988. It has been committed to the national agenda of women's empowerment and works with government agencies as well as NGO's on women's concerns, to link academics with field realities. The mandate for Women's Studies within the university system includes teaching, training, research, advocacy, field action and dissemination.

The Women's Studies MA Programme is designed to facilitate critical thinking and develop new knowledge, to help 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.

Prerequisites: A Bachelor's Degree in any subject.

There will be an entrance test/change of faculty test which will be held on 9 June 2015 (4.00pm - 5.30pm). 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 GU Ordinance OA 18.

<b>COMPULSORY C</b>	COMPULSORY COURSES		
<b>COURSE CODE</b>			
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	
WSC - 109	Gender and Marginality	4	
WSC - 110	Gender, Human Rights and Law	4	

OPTIONAL COURSES		CREDITS
<b>COURSE CODE</b>		
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
WSO - 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

#### NUMBER OF SEATS AVAILABLE IN M.A (WOMEN STUDIES) AND RESERVATIONS

S.No.	Courses	Total No. of Seats	sc	ST	ОВС	Differently Abled	Other Indian Universities	Wards of Ex- Serviceman
	P. G. Courses							
Faculty of Social Sciences								
a.	Women Studies	*15	1	2	4		1	

<sup>•</sup> M.A (Women Studies) program will be started subject to minimum enrolment of five students

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: Bhat N. S.

#### **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. A. V. Salker

Dept. of Chemistry	Courses Offered	Intake	Fee (Rs.)
Established: 1966 (CPIR)	M. Sc.	72	10200.00
Code: CH	M. Phil.		11500.00
	Ph. D.		10000.00

#### **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**

Fernandes, J. B, Ph.D. (Bombay University) (Electrochemistry & Catalysis)

**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)(On Lien)

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)

Singh P. R, Ph.D. (I.I. T. Bombay) Electrochemistry, Atomic Force Microscopy)

**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)

Gururaja G.N, Ph.D., (I.I.T. Bombay) (NMR spectroscopy, Chiral separation techniques)

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

#### **DST INSPIRE Faculty**

Santosh G, Ph.D. (I.I.T Bombay), (Molecular Self Assembly)

**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.

### **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 (Compulsory 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 (Optional 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 & Introduction to Computers		2
CHAO-401	Analytical Techniques –I	2
CHAO-402	Analytical Techniques –II	2
CHPO-403	Diffraction Methods	2
Semester III 8	k IV (Compulsory Courses)	
ANALYTICAL (	CHEMISTRY	
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 C	HEMISTRY	
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 CHI	EMISTRY	
CHOC-501	Organic Spectroscopy, Peri cyclic Reactions and Photochemistry	4
CHOC-502	Reaction Mechanisms and Stereochemistry	4
CHOC-503	Synthetic Methods in Organic Chemistry	4
CHOC-504	Selected experiments in Organic Chemistry	4

PHYSICAL CH	EMISTRY		
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 8	& IV (Optional Courses)		
ANALYTICAL	CHEMISTRY		
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 (	CHEMISTRY		
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 CH	EMISTRY		
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 Methods of Pest Control	4	
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 Organic Synththesis 58 GOA UNIVERSITY HANDBO	ок 2015- <b>2</b> 6	
PHYSICAL CH	1		

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 OPT	TIONAL COURSES (III & IV)	
Semester III C	DR 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 2015-16 the distribution of seats in M Sc Part-I in various categories shall be as under-

Sr. No.	Category	Analytical	Inorganic	Organic	Physical	Total
		chemistry	chemistry	chemistry	chemistry	
1	General	09	10	09	10	38
2	SC	1	0	0	1	02
3	ST	2	2	3	2	09
4	OBC	5	5	5	4	19
5	Differently abled/Defense	0	1	1	0	02
6	Other Indian University	1	0	0	1	02
7	Total -	18	18	18	18	72

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

- A) Change in specialization at Part-II: Depending upon the performance at M Sc- Part-I level, the first 16 ranksshall be allowed to change their specialization before admission to part-II course if they so desire, subject to the following.
  - (1) The specialization for the M Sc Part-II level <u>will be provisionally decided</u> based on merit and the choices given by respective students at the time of admission to M Sc part-I level itself.
  - (2) Ordinarily, maximum number of seats for any of the Part-II specialization, *viz.*,
    Analytical, Inorganic, Organic or Physical Chemistry shall be Eighteen each (See Note 1).
  - (3) Specialization, once changed as above shall be final and binding and no change shall be allowed thereafter.

Dept. of Computer Science & Technology	Courses Offered MCA	Intake 60	Fees (Rs.) 14800.00
Established: 1987	M. Tech	12	16700.00
	M. Phil.		10200.00
Code: CST	Ph.D.		10000.00

The Department offers a full time 3-year programme leading to a Master of Computer Applications and also offers doctoral degree leading to Ph.D. in Computer Science & Technology. The thrust areas of the Department include Computer Graphics, Data Mining, Software Engineering, Databases, Computer Networks and Embedded Systems, Information Systems Security, Theoretical Computer Science and Data Warehousing. 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 its 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, Compiler & Embedded Systems, Cloud Computing).

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

Assistant Professor

**Karmali, R,** M.C.A. (Goa University) (Natural Language Processing, Data Communication, Security) **Payaswini P,M.Sc.,**(Computer Science) (Mangalore University, Mangalore) Computer Net working, Data Structures.

Laboratory Facilities: The Laboratory facilities in the Department are constantly upgraded to cater to the growing needs of students. Currently around fifty core 2 Duo nodes spread over the Department area – the laboratory as well as faculty offices – are served by Linux and Windows 2008 servers. About forty five students can simultaneously work on MS WINDOWS/UNIX/X-Windows platforms. Presently, the laboratory supports all computer languages, Integrated Development Environments and software tools available on Open Source Linux Platform. In addition to the usual Office suites, such as Microsoft Office, 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's MSDN Academic Initiative which provides legal copies of all Microsoft software available on workstation and Server platforms.

# Programme: M C A - 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 103	Probability & Statistics	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 Structure	4
CS 202	Operating Systems	4
MT 203	Applied Operations Research	4
MT 204	Applied Linear Algebra	4
PL 205	Data and File Structure 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	<b>l</b>

Dept. of Earth Science	Courses Offered	Intake	Fee (Rs.)
Established: 1986 Code: EA	M. Sc.	15	10200.00
Code: EA	M. Phil.		11500.00
	Ph. D.		10000.00

The Department of Earth Science, established in 1986, offers academic programme leading to M.Sc. (Geology) and Doctoral degrees. The department annually admits 15 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 courses 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 (PC) and elective (PE) (optional-OC) 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

Vishwanath, T. A, Ph.D. (I.I.T., Kharagpur) (Igneous and Metamorphic Petrology, Geochemistry).

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.

## Scheme of Instruction: Semester System (Choice Based Credit System)

COMPULS	ORY 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	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
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• As per revised ordinance governing CBCS.

Dept. of Electronics	Courses Offered	Intake	Fee (Rs.)
Established: 2010	M. Sc. (EL)	15	13350.00
Code: EL	Ph. D.		10000.00

The Electronics Department is running Innovative Program sponsored in the area of Embedded Systems. The Department offers both M.Sc. and Ph.D. degree in Electronics. The thrust area of the program is Embedded Systems and Biomedical Instrumentation. Bachelor Degree students with 55% marks are eligible for departmental entrance test for admission to the M.Sc. Electronics program. Summer Internship as well as industry associated mini and major projects are highlights of this program. The Department has ongoing projects in the areas of Biomedical Electronics, Hyper Spectral Imaging, Agro Electronics and Biometrics.

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) (Multivariate System Design).

**Assistant Professor** 

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

#### **Major Facilities:**

UV/Visible Spectrophotometer, UV-VIS-NIR Fiber-optic Spectrometer, Isolation Table, Hyperspectral Imaging Setup, Spectrum analyzer, Portable Signal Generator and Analyzer upto 3GHz range, Biomedical kits-ECG and EMG, Different lasers and light sources, ALTERA Target Technology, Altera DSP development boards, Trans-receiver, Ethernet Development boards, PIC, 89C52, ARM7/9 development kits, NI Speedy 32 kit, Xilinx IDE ISE 7.1 with IP cores, MATLAB & Instrumentation design tools like LAB View, TRI India Robotics development kits, VLSI, CAD tools, like P-Spice, Microwind; Electromagnetic Test Bench.

### Scheme of Instruction: (Semester System) Choice based Credit System

#### M. Sc. ELECTRONICS

Semester I		No. of Credits
ELC101	Microelectronics and VLSI Design	4
ELC102	Numerical Computation and Algorithms	4
ELC103	EDA tools-I	4
ELC104	Electronics Practicals – I	4
UEL101	Advanced Digital Communication System	4
Semester – II		
ELC201	Embedded System Design	4
ELC105	Operating system and RTOS	4

ELC202	Optical communication system	4
ELC203	Electronics Practicals - II	4
UEL102	Microprocessor Architecture and Programming	4
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
UEL103	Industrial Training, Mini project and Seminar	4
Semester – IV		
ELD 401	Electronics Practicals - IV	4
ELD 203	Nano Electronics and Nano systems	4
ELD 303	Laser System Engineering	4
ELD 402	Project	8
UEL 104	Pharmaceuticals Instrumentation	4
UEL 105	Communication and Technical skills	4

Dept. of Mathematics	Courses Offered	Intake	Fee (Rs.)
Established: 1965 (CPIR)	M. Sc. Mathematics	25	5100.00
Code: MA	M. Phil.	5	10200.00
	Ph. D.		10000.00

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: Jayanthan, A. J

#### 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)

## Scheme of Instruction (Semester System) (Choice based Credit System)

Semester INo of CreditsMATH 101Real Analysis4Core CoursMATH 119Basic Algebra4Core CoursMATH 103Linear Algebra4Core CoursMATH 201Differential Equations4Core CoursMATH 108Methods of Applied Mathematics4Optional Co	e e e
MATH 119 Basic Algebra 4 Core Cours  MATH 103 Linear Algebra 4 Core Cours  MATH 201 Differential Equations 4 Core Cours	e e e
MATH 103 Linear Algebra 4 Core Cours MATH 201 Differential Equations 4 Core Cours	e e
MATH 201 Differential Equations 4 Core Cours	е
MATH 108 Methods of Applied Mathematics 4 Optional Co	ourse
Semester II	
MATH 211 Algebra 4 Core Cours	se
MATH 104 Topology 4 Core Cours	se
MATH 105 Several Variable Calculus 4 Core Cours	se
MATH 302 Measure Theory 4 Optional C	ourse
MATH 106 Complex Analysis 4 Core Cours	se
Semester III	
MATH 202 Functional Analysis 4 Core Cours	se
MATH 305 Partial Differential Equations 4 Optional C	ourse
Optional Course 4	
Optional Course 4	
Dissertation	

	Semester IV		
	Optional Course	4	
	Optional Course	4	
	Optional Course	4	
	Dissertation		
	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 211	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	Operational Systems	41.	
MATH 405	Functional Equations	4	
MATH 406	Wavelets	4	
MATH 001	Statistics	4	

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

Dept. of Physics(1973)	Courses Offered	Intake	Fee (Rs.)
Established: 1963 (CPIR)	M. Sc.	25	10200.00
Code: PH	M. Phil.	10	10200.00
	Ph. D.		10000.00

#### **DST-FIST/UGC-SAP SPONSORED DEPARTMENT**

Establishment in 1973, having its origin in the erstwhile Centre for Postgraduate Instruction and Research, the Department offers M. Sc., M. Phil Degree programs and Ph. D. degree In diverse areas of research in the subject. The thrust area of research is Condensed Matter Physics in which materials ranging from glasses to nano-magnetic to luminescent, magnetic shape-memory, Bosonic liquids etc. are made and examined in the Department for their structural, magnetic and transport properties. The Department is an active member of the DST funded Nano-mission project involving several Departments and is recognized under DST-FIST (Level-I Phase II), UGC-SAP (Phase III) and, Infrastructure programs and has several other ongoing projects. The faculty and research scholars with admirable research to their credit publish their finding in reviewed in international and national journals with good impact factors and have been regularly presenting their work at noteworthy national/international conferences. The Department is known to offer research level projects to its final year M.Sc. students – as a part of their curriculum – and on the basis of which they have been presenting research papers at national/International conferences and publishing their work in reputed referred journals. For example, in 2014 a paper based on an M.Sc. project work, was presented by the student at the International Conference on Nanotechnology (NANOCON-14) and received appreciation as the best paper in the section. The Department is fully equipped with the facilities mandatory for the courses offered in addition to the research facilities which are appended with funds for the courses offered in addition to the research facilities which are appended with funds received from Govt. of India, funding agencies and individual faculty projects from time to time.

#### Head of Department: Tangsali, R. B

#### **List of Faculty & Specialisation**

**Professors** 

Desa, J. A. E, Ph.D. (University of Reading, U.K.) (Neutron Scattering, Solid State Physics).

**Tangsali, R. B,** Ph.D. (Bombay University) (Solid State Physics, Nanomaterials).

Pai, R. V, Ph.D. (Institute of Physics, Bhuvaneshwar) (Theoretical, Solid State Physics).

**Priolkar K. R,** Ph.D. (Goa University) (Experimental Solid State Physics-NEXAFS and EXAFS).

Associate Professors

**Subramanian, U**, Ph.D. (I.I.T., Kharagpur) (Experimental Solid State Physics).

**UGC-Research Faculty** 

**Assistant Professors** 

Pahari B., Ph.D.(Jadavpur University) (Condenses Matter Physics, NMR Spctroscopy).

Cherukulappurath S., Ph.D. (University of Angers, France) (Nonlinear Optics, Plasmonics, Nanophotonics).

#### **Major Facilities:**

Carbolite Programmable High Temperature Furnaces, Centorr Tri Arc Furnace, UV-VA Spectroflucometer Hot-air oven, Retsch Ball Mill, Sieve Shaker, Optical Microscope, FTIR & Uv-Vis spectrophotometers, Electrical Resistivity, AC susceptibility, Thermopower apparatus (ambient to 10K), Dielectric Bridge, Differential Scanning Calorimeter(-140°C to 600°C), Thermo gravimetric analyser (ambient - 1100°C), Computer laboratory, Beowolf Linux Cluster, Pulsed-field Loop Tracer, Luminescence spectrometer.

### Major facilities to be added during 2015-16

XRD with SAS, GIXRD and temperature control, Microwave furnance(1500°C) and Pulsed Laser Thin film Deposition System

# Scheme of Instruction(Semester System) Choice based Credit System

	SEMESTER- I	No. of Credits
PHC-100	Bridge Course in Mathematical Methods	2
PHC-101	Mathematical Physics	5
PHC-102	Classical Mechanics	5
PHC-103	Electromagnetic Theory	5

		T
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	4
PHO-304	X-ray Spectroscopy	4
PHO-305	Electronics Practicals - II	4
PHO-306	Semiconductor Physics	4
PHO-307	Projects	12
PHO-308	Acoustics and Noise Control	4
PHO-309	Physics of Non-Conveentional Energy Source	4
PHO-310	Numerical Methods and Fortrain Parallel Programming using open MP	4

#### **FACULTY OF LIFE SCIENCES & ENVIRONMENT**

Dean: Prof. M. K. Janarthanam

Dept. of Biotechnology	Courses Offered	Intake	Fee (Rs.)
Established: 2003	M. Sc.(Marine Biotechnology)	20	10200.00
Code: MB	M. Sc. (Biotechnology)	20	10200.00
	M. Phil. (Biotechnology)		11500.00
	Ph. D.(Biotechnology)		10000.00

#### **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 the 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 receive a studentship of Rs. 3,000/-p.m. for the duration of the course.

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 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; studty of marine macroalgae for nutraceutical properties and isolation of lectins; bioactive substances from plants extracts and marine sources; bioremediation of heavy metals by salt pan bacteria and their nanoparticles.

Head of Department: Muraleedharan, Usha D

**List of Faculty & Specialisation** 

**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 marine-related 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 and -80 C), Fluorescence/Phase Contrast Microscope, Pilot-scale Fermentation, Ultrapure water system, Departmental Library, Computer Lab for Bioinformatics, High speed Refrigerated Centrifuges, Protein purification system.

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

Course Code	Course Name	No. of Credits
	Semester I	
MBT 101	Fundamentals of General and Marine Microbiology	3
MBT 102	Concepts in Biochemistry	3
MBT 103	Principles of Genetics & Molecular Biology	3
MBT 104	Principles of Oceanography	2
MBT 105	Biostatistics	2
MBL 101	Lab in Marine Microbiology	2
MBL 102	Lab in Biochemistry	2
MBL 103	Lab in Molecular Genetics	2
MBT 106	Communication Skills & Scientific Writing	2
	Semester II	
MBT 111	The Marine Ecosystem	2
MBT 112	Introductory Immunology	3
MBT 211	Cell & Developmental Biology	3
MBT 113	Bioinformatics	2
MBT 212	Plant Tissue Culture Technology	2
MBL 111	Lab in Marine Biology & Chemistry	2
MBL 112	Lab in Immunology	2
MBL 113	Lab in Bioinformatics	2
MBL 114	Lab in Plant Tissue Culture	1
MBM 111	Seminar Presentations	1
	Semester III	
MBT 221	Bioprocess & Industrial Biotechnology	3
MBT 222	Recombinant DNA Technology	3
MBT 223	Animal Cell Culture	2
MBT 224	Enzymology	3
MBT 225	Molecular Immunology	3
MBL 221	Lab in Fermentation Technology	2
MBL 222	Lab in Recombinant DNA Technology	2

MBL121	Lab in Animal Cell Culture	2
MBL223	Lab in Enzyme Characterisation	2
*MBM 221	Summer Training Presentation & Report	1
MBM 222	Dissertation ( Marine Biotechnology) (Stage I)	2
	Semester IV	
MBT 331	Potential Applications of Marine Organisms	3
MBT 231	Aquaculture Technology & Marine Pharmacology	3
MBT 332	Applications of Recombinant DNA Technology	3
MBT 232	Biosafety & IPR	3
MBT 131	Cellular Biophysics	3
MBT 333	Genomics and Proteomics	3
MBM 231	Seminar Presentations	1
MBM 331	Dissertation ( Marine Biotechnology) (Stage II)	6
MBM 131	Scuba Diving	2

<sup>\*</sup>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.

Almost 90% of our postgraduate students have been qualifying for the CSIR/UGC fellowship, some of them securing very high ranking at the GATE examination. This is in addition to their achievements at the DBT 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.

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.

### Programme: M.Sc. in Biotechnolgy

Course Code	Name of the Course	No. of Credits
	Semester I	
GBT 101	Fundamentals of Microbiology	3
GBT 102	Concepts in Biochemistry	3
GBT 103	Principles of Genetics & Molecular Biology	3
GBT 104	Bioinstrumentation	2
GBT 105	Biostatistics	2

GBL 101	Lab in Microbiology	2
GBL 102	Lab in Biochemistry	2
GBL 103	Lab in Molecular Genetics	2
GBT 106	Scientific Writing	1
GBM 112	Introductory Course in Molecular Biology	2
	Semester II	
GBT 111	Introductory Immunology	3
GBT 211	Cell & Developmental Biology	3
GBT 112	Bioinformatics	2
GBT 212	Plant Tissue Culture Technology	2
GBL 111	Lab in Immunology	2
GBL 112	Lab in Bioinformatics	2
GBL 113	Lab in Plant Tissue Culture	1
GBM 111	Seminar Presentations	1
GBT 213	Environmental Biotechnology	2
GBT 214	Food Biotechnology	2
	Semester III	
GBT 221	Bioprocess & Industrial Biotechnology	3
GBT 222	Recombinant DNA Technology	3
GBT 223	Animal Cell Culture	2
GBT 224	Enzymology	3
GBT 225	Molecular Immunology	3
GBL 221	Lab in Fermentation Technology	2
GBL 222	Lab in Recombinant DNA Technology	2
GBL 121	Lab in Animal Cell Culture	2
GBL 223	Lab in Enzyme Characterisation	2
GBT 121	Nanobiotechnology	2
GBM 221	Field Trips & Report	1
	Semester IV	
GBT 331	Advances in Plant Biotechnology	3
GBT 332	Advances in Animal Biotechnology	3
GBM 331	Dissertation	8
GBM 231	Seminar Presentations	1
GBT 131	Bioentrepreneurship	2
GBT 231	Biosafety & IPR	3

# Programme: M.Phil. in Biotechnolgy (One Compulsory + Any two optional papers)

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

Dept. of Botany	Courses Offered	Intake	Fees (Rs.)
Established: 1990	M. Sc.	25	10200.00
Code: BO			
	M. Phil.	10	11500.00
	Ph. D.		10000.00

### **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 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: Rodrigues, B. F

### List of Faculty & Specialisation:

**Professors** 

**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, 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 Biotechnology and Molecular Biology).

Assistant Professor

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

### **Major Facilities and Equipments:**

Poly House 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, 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 foradmission 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.

Compulsory Core Courses		No. of Credits
BOC-101	Algae, Bryophytes, Pteridophytes Gymnosperms	4
BOC-102	Fungi, Bacteria, Viruses and Plant Pathology	4
BOC-103	Taxonomic Methods and classification of Angiosperms	4
BOC-201	Internal Morphology and Developmental Biology: Angiosperms	4
BOC-203	Advanced Ecology	4
BOC-204	Fungal Biodiversity, Bioprospecting and Biotechnology	4
BOC-205	Plant Physiology	4
BOC-301	Plant Molecular Biology	4
BOC-302	Plant Genetic Engineering	4
BOC-401	Cytogenetics and Plant Breeding	4
Optional Course	es	
BOO-101	Techniques and Instrumentation in Botany	4
BOO-102	Bioinformatics and Chemoinformatics	4
BOO-103	Enology	1
BOO-104	Mine Wasteland Management	1
BOO-105	Practical course in Plant Identification	1
BOO-201	Plant-Animal Interactions	3
BOO-202	Ethnobotany	2
BOO-203	Mycological Techniques	4
BOO-204	Post Harvest Technology for Fruit Crops	3
BOO-205	Economic Botany	2
BOO-206	Aquatic Plant Resources and their Management	1
BOO-301	Applied Phycology: Utilization and Management	3
BOO-302	Plant Biotechnology	4
BOO-303	Mycorrhizal Biotechnology	3
BOO-304	Plant Histochemistry	3
BOO-305	Horticulture, Landscaping and Gardening	3
BOO-306	Seed Science and Technology	4
BOO-307	Introduction to Paleoflora	1
BOO-401	Fungal Chemistry and Mycoremediation	2
BOO-402	Techniques in Photosynthesis and crop productivity	2
BOO-403	Phytochemistry	2
BOO-404	Glycobiology	2
BOO-405	Remote sensing: Techniques and application	4

BOO-406	Plant Biochemistry	4
BOO-407	Bioentrepreneurship and innovation	2
BOO-408	Mushroom Biotechnology	2
	Dissertation	8
	Field studies/institutional visits/botanical tours etc. ( 1 credit per semester)	Max. 4

**IMPORTANT**: A maximum of 20 credits may be opted from the Courses offered by other departments in the faculty of Life Sciences and Environment and/or other faculties, in consultation with respective Heads of the Departments.

**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.

# M.Phil. (Botany and Plant Biotechnology) List of Courses

Compulsory Courses		No. of Credits
BMC-101	Research Methodology and Techniques	4
Optional I		
BMO-101	Biotechnology and Applications	4
Optional II		
BMO-201	Advancs 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 : O	ptional II will be in the area of specialization/dissertation.	<u>.</u>

Dept. of Marine Science Established: 1985 Code: MS	Courses Offered	Intake	Fee (Rs.)
Established: 1985	M. Sc.	20	10200.00
Code: MS	M.Phil.	05	11500.00
	Ph. D.		10000.00

### **DST-FIST Sponsored 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, Radioactive transfer modelling of visible spectrum of electromagnetic radiation, Identification of perennial source CO<sub>2</sub> through optical remote sensing, Atmospheric correction of OCM and MODIS data - Atmospheric optics, Aerosol characterization, Effect of aerosol on climate, 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, Tropic 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: Nayak, G. N.

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

COMPULSORY CO	DURSES	No. of Credits
MS101	Physical Oceanography	4
MS102	Marine Chemistry	4
MS103	Marine Biology	4
MS201	Marine Geology	4
MS202	Computational Methods in Oceanography	4
MS301	Geophysical Fluid Dynamics	4
MS302	Ocean Atmosphere coupling and Climate	4
MS303	Marine Pollution	4
MS307	Marine Geochemistry I	2
MS310	Marine Ecology	4
MS312	Sedimentology	4
MS318	Marine Geochemistry II	1
MS328	Marine Geochemistry III	1
MS401	Estuarine and Coastal Physical Oceanography	2
MS402	Estuarine Chemistry	2
MS403	Estuarine Biology	2
MS404	Estuarine and Coastal Geology	2
OPTIONAL COUR	SES	•
MS104	Geomorphology and Tectonics	2
MS115	Physical Oceanography Practical	2
MS116	Marine Chemistry Practical I	2
MS117	Marine Biology Practical I	2
MS203	Remote Sensing and its applications	4
MS204	Analytical Chemistry of Sea Water and Instrumental Techniques	4
MS205	Aquaculture	4
MS210	Aquaculture Practical	2

MS211	Marine Biology Practical II	2
MS212	Marine Chemistry Practical II	2
MS216	Marine Geology Practical	2
MS217	Computational Methods in Oceanography Practical	2
MS218	Remote Sensing and its application Practical	2
MS219	Analytical Chemistry of Sea Water Practical and Instrumental Techniques Practical	2
MS314	Geophysical Fluid Mechanics Practical	2
MS315	Ocean Atmosphere coupling and Climate Practical	2
MS316	Marine Pollution Practical	2
MS319	Marine Geochemistry Practical I	1
MS321	Marine Ecology Practical	2
MS323	Sediment logy Practical	2
MS329	Marine Geochemistry Practical II	1
MS324	Cruise Participation/Training (Assessment)	1
MS325	Department Seminar	1
MS326	Fundamentals of General and Advance Microbiology	3
MS405A	Dynamic Oceanography - I	2
MS405B	Dynamic Oceanography - II	2
MS406	Physical and Inorganic Chemistry of Seawater	4
MS407	Marine Biodiversity, conservation and practices	4
MS408	Marine Geophysics	4
MS410	Dissertation	12
MS419	Biogeochemistry of CNS	2
MS501	Aerosol and climate	2

Department of	Courses Offered	Intake	Fees (Rs.)
Microbiology	(i) M.Sc.Microbiology	20	10200.00
Established: 1974 (CPIR)	(ii) M.Sc.Marine Microbiology	16	10200.00
Code:MI/MM/BC	(iii) Biochemistry	20	10200.00
	(iv) M. Phil.		11500.00
	(v) Ph. D.		10000.00
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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, 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) (General and Environmental Microbiology, Bioremediation, Ectomycorrhizal fungi).
- **D'Costa, P. M,** Ph.D. (Goa University) (Marine Microbiology interactions between phytoplankton and bacteria diversity, biofilms).
- **Naik, M. M,** Ph.D. (Goa University) (Environmental Microbiology, Molecular Biology, Microbial genetics, Agricultural Microbiology).

### **Major Facilities:**

High Pressure Liquid Chromatography: Lyophilisation Unit; Cooling Centrifuge: Gel Electrophoretic units for protein/DNA, Fluorescent – Phase contrast and General Microscopy; 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; Walk in Cold Room; UPS(Power Backup System); Nanodrop spectrophotometer, PCR, Eporator, Freezer (-20° C)

### Programme: M.Sc. in Microbiology

Semester I		No. of Credits
MIC101	Microbial Biochemistry	4
MIC102	Microbial Genetics	4

MIC103	Microbial Taxonomy and Systematics	4
MIC104	Techniques and Instrumentation in Microbiology	4
MIC105	Biostatistics	4
Semester II		
MIC201	Industrial Microbiology	4
MIC202	Archaea: Ecology, Physiology, Biochemistry and Genetics	4
MIC203	Molecular Biology	4
MIC204	Marine Microbiology I	4
MIC205	Mycology	4
Semester III		
MIO301	Medical Virology	3
MIO302	Environmental Microbiology	4
MIO303	Genetic Engineering	4
MIO304	Immunology	3
MIO305	Extremophilic Microorganisms	4
MIO306	Bioinformatics	3
MIO307	Research Methodology	1
MIO308	Field trip/Summer training	1
Semester IV		
MIO401	Microbial Technology	4
MIO402	Food Microbiology	4
MIO403	Agricultural Microbiology	4
MIO404	Microbiology in environmental pollution and its control	4
MIO405	Medical Microbiology and epidemiology	4
MIO406	Marine Microbiology II	4
MID	Dissertation	12

# Innovative M.Sc. in Marine Microbiology

UGC sponsored programme for Teaching and Research in Marine Microbiology.

Semester I		Credits
MMC 101	Microbial Biochemistry	4
MMC 102	Microbial Genetics	4
MMC 103	Microbial Taxonomy and Systematics	4
MMC 104	Techniques and Instrumentation in Microbiology	4
MMC 105	Biostatistics	4
Semester II		
MMC201	Industrial Microbiology	4
MMC202	Archaea: Ecology, Physiology, Biochemistry and Genetics	4
MMC203	Molecular Biology	4
MMC204	Marine Microbiology I	4
MMC205	Genetic Engineering	4
Semester III		
MMO301	Marine Pollution & Microbial Remediation	4
MMO302	Marine Microbial Prospecting and Technology	4
MMO303	Marine Microbial Genomics	4
MMO304	Marine Environment & Public Health Management	4
MMO305	Marine Extremophilic Microorganisms	4
MMO306	Marine Virology	3
Semester IV	•	
MMO401	Microbial Ecology of Deep Marine Environment	4
MMO402	Fishery Microbiology	4
MMO403	Polar Microbiology	4
MMO404	Remote Sensing & GIS*	4
MMO405	Bioinformatics	3
MMO406	Marine Mycology	4
MMO407	Cruise	2
MMO408	Summer training/Field trip/A Study tour	2
MMD	Dissertation	12

# M.Sc. Biochemistry

Courses	Choice based credit System	Credits
BCC 101	Fundamental in Biochemistry	4
BCC 102	Enzymology	4
BCC 103	Analytical Biochemistry - I	4
BCC 104	Microbes in Health and Disease	4
BCC 105	Biostatistics	4
BCC 201	Clinical Biochemistry	4
BCC 202	Molecular Biology	4
BCC 203	Analytical Biochemistry - I	4
BCC 204	Immunology - I	3
BCC 205	Hormones	2
BCC 206	Membrance Biochemistry	1
BCC 207	Research Methodology	2
OPTIONAL COU	RSES	
BCO 101	Genetic Engineering	4
BCO 102	Nutrition and Food Biochemistry	4
BCO 103	Immunology - II	3
BCO 104	Neurochemistry	2
BCO 105	Drug Metabolism	2
BCO 106	Biochemistry of Environmental Pollution and Remediation	4
BCO 107	Industrial Biochemistry	4
BCO 108	Frontiers in Biotechnology	4
BCO 109	Study Tour/ Field Trip	1
DISSERTATION	· · · · · · · · · · · · · · · · · · ·	•
BCD	Dissertation	12

 $<sup>\ ^*</sup>$  For application forms, visit Goa University website www.unigoa.ac.in.

Dept. of Zoology Established: 1990 Code: ZO	0 0% 1	T 1	E (D)
Dept. of Zoology	Courses Offered	Intake	Fees (Rs.)
Established: 1990	M. Sc.	20	10200.00
Code: ZO	PG Diploma	20	35230.00
	M.Phil		10200.00
	Ph. D.		10000.00

### 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. Recognised Medical College/Hospitals/Institute.

Head of Department: Roy, R,

### 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, LipidBiochemistry).

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

Besides, Department is having faculty on contact 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, GC, Thermal Cycler etc.

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	Fishery Biology	4
ZOO304	Parasitology	4
ZOO305	Biodiversity	3
ZOO306	Avian Biology	3
ZOO307	Wildlife Biology	2
ZOO308	Immunology*	2
ZOO309	Animal Behaviour*	2
Z00310	Radiation Biology*	2
Semester IV		
ZOO401	Toxicology	3
ZOO402	Human Genetics	4
ZOO403	Marine Zoology	4
ZOO404	Biology of Reproduction	3
ZOO405	Biochemical Techniques	4
ZOO406	Application of Animal Biotechnology	4
ZOO407	Molecular Endocrinology	4
ZOO408	Evolutionary Biology*	2
ZOO409	Nutritional Biochemistry*	2
ZOO410	Medical Entomology*	2
Z00411	Field work	2
ZOO412	Dissertation	8

<sup>\*</sup>Inter disciplinary course

Field work and Dissertation are compulsory courses. Student has to undertake Field Work in all the semesters andf dissertation 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  $^{\rm rd}$  /4  $^{\rm th}$ semester.

### M. Phil Program:

### SEMESTER - I

Paper 1 - Research Methodology (compulsory)

Paper 2 & 3: Optional Courses: A student has 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 Program:**

Semester I			
DLTC01	Clinical Genetics I		
DLTC02	Clinical Biochemistry		
DLTC03	Clinical Microbiology (General and Systematics)		
DLTC04	Clinical Pathology & Histology		
Semester II	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**

Dean: Prof. Y. V. Reddy

Dept. of Commerce	Courses Offered	Intake	Fees (Rs.)
Established: 1988	M. Com.	60	5100.00
Code: CO	MBA (FS)	40	98200.00
	M.Phil.	10	10200.00
	Ph. D.		10000.00

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 internships and placement services for M.Com. and MBA (F.S.) students.

### 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 Markets).

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

Subhash, K. B, Ph. D. (Calicut University) (Quantitative Techniques, Finance, Tourism Management).

### **Assistant Professors**

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

Pournima Dhume, Ph.D. (Goa University) (Accounting & Finance, Capital Market Studies, Taxation)

Pournima B.G, M.Phil (Sri Venkateswara University) (Accounting & Finance, Quantitative

Techniques, Econometrics in Finance, Financial Risk Management, International Financial Management)

**Subasish Mohanty, M.Com**.,( Banaras Hindu University) (Human Resource management, Organizational Behaviour, Insurance & Risk Management)

Pushpender Kumar, M.Com(Aligarh Muslim University) (Accounting and Finance, Cost Management)

**Kaustubh Kamat,** M.M.M.. (Pune University) (Marketing Management, Strategic Management, IT and Tourism Management).

# M. Com.-List of Courses) (Choice Based Credit System)

	Compulsory Courses	No. of Credits
COC101	Advanced Financial Management	4
COC102	Business Statistics	4
COC103	Managerial Accounting	4
COC104	Capital Markets	4
COC105	Advanced IT Applications for Business	4
COC201	Corporate Accounting	4
COC202	Organizational Behaviour	4

COC203	Marketing Management	4
COC204	Security Analysis & Portfolio Management	4
CO205	Corporate Tax Planning and Management	4

# **Specialization courses**

The students are required to opt for 4 papers during the third semester and 3 papers during the Fourth Semester from one of the two specializations.

		No. of Credits
Accounting	g & Finance	
COO3A1	Econometrics for Finance	4
COO3A2	Banking and Insurance Management	4
COO3A3	Financial Services	4
COO3A4	Indirect Taxes	4
COO4A1	Derivatives Market	4
COO4A2	Cost Management	4
COO4A3	International Financial Management	4
Business Ma	inagement	No. of Credits
COO3B 1	Retail Marketing	4
COO3B 2	Human Resource Development	4
COO3B 3	Advertising and Sales Management	4
COO3B 4	Business Policy and Strategic Manangement	4
COO4B 1	Entrepreneurship Development	4
COO4B 2	Tourism and Travel Management	4
COO4B 3	Services Marketing	4
	Field-based Compulsory Courses	
COC4D	Dissertation	12

# **MBA (Financial Services) Course Structure**

Semester I		No. of Credits
FSC 101	Accounting for Management	4
FSC 102	Quantitative Techniques for Finance	4
FSC 103	Financial Management	4
	· ·	
FSC 104	Security Analysis	4
FSC 105	Financial Services	4
FSC 106	Strategic Management	4
FSC 107	Managerial kills	4
FSC 201	Econometrics for Finance	4
FSC 202	Portfolio Management	4
FSC 203	Financial Services II	4
FSC 204	Treasury and Forex Management	4
FSC 205	Derivatives Market	4
FSC 206	Advanced IT application for Business	4
FSC 206	Stock Market Operations	4
Specializati	on courses	
FSO 301	Corporate Restructuring	4
FSO 302	Banking and insurance Management	4
FSO303	Venture Capital and Private Equity	4
FSO304	Corporate Governance and Social Responsibility	4
FSO 305	Financial Risk Management	4
FSO 306	Marketing of Financial Services	4
FSO 307	Infrastructure and Real Estate Finance	4
FSO 308	Business Analytics	4
FSO 309	Tax Planning and Management	4
FSO 310	Summer Training Report	4

# Field Based Compulsory Courses

FSC 401	Corporate Internship	8
FSC402	Project Report	8

# **FACULTY OF MANAGEMENT**

Dean: Prof. N. Mekoth

Dept. of Management	Courses Offered	Intake	Fees (Rs.)
Studies	MBA	60	98200.00
	M.Phil.		10200.00
	Ph. D.		10000.00
	Integrated MBA	30	66000.00

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: Dayanand, M. S

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)

Assistant Professors

Nirmala, R, Ph.D. (Andhra University) (Marketing, Human Resources)

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

**D'Souza, E, M.** Sc. (T.H.M.) (Hospitality Management)(On Contract)

**D'Souza, K. S**, (M.A.T.M.) (Hospitality) (On Contract)

### 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.

Term 1: (Ju	uly to September)	No. of Credits
C1-001	Strategic Management	2
C1-003	Marketing Management	2
C1-004	Finance Management	2
C1-005	Production Operations Management	2
C1-107	Business Economics	2
C1-101	SSP 1: Oral Communication Skills in English	1
C1-029	Comprehensive Case Analysis 1	1
C1-033	Learning Management through Executive Interaction	
C1-034	Seminars on Contemporary Issues	1
Term 2: (C	october to December)	No. of Credits
C1-009	Organizational Behaviour	2
C1-010	Advanced Marketing Management	2
C1-011	Advanced Finance Management	2
C1-012	Human Resource Management	2
C1-014	Management Accounting	2
C1-015	Macroeconomic Analysis	2
C1-033	Learning Management through Executive Interaction	
	Internship (19 <sup>th</sup> November to 7 <sup>th</sup> December – 2 weeks)	
	Internship Reports	
C1-103	SSP 2: Presentation Skills	1
C1-109	SSP 3: Report Writing Skills	1
Term 3: (Ja	anuary to March)	No. of Credits
C1-012	Advanced Human Resource Management	2
C1-018	Business Research Methods	2
C1-019	Legal Aspects of Business	2
C1-023	Business Ethics	2
C1-028	Indian Social, Political and Cultural Environment	2
C1-039	Financial Markets	2
C1-105	SSP 4- Group Discussion Skills	1
C1-033	Learning Management through Executive Interactions	
C1-114	SSP 6: Mock Interviews by Executives	
	Electives – Business ( 2 Electives – per elective 2 credits)	4
Term 4: (A	pril to June)	
Code	Subject	Contact Hours

	Summer Internship in Organisations and Report	
	Internship Seminars	
Term 5: (Ju	lly to September)	
Code	Subject	No. of Credits
	Electives-Business (6 Electives – per elective 2 credits)	12
C1-107	SSP:Interview Facing Skills	2
C1-033	Learning Management through Executive Interactions	
Term 6: (O	ctober to December)	
	Electives – Business (4 Electives – per elective 2 credits)	8
	Electives – Non Business (2 Electives – per elective 2 credits)	4
C1-114	SSP 6: Mock Interviews by Executives	1
C1-130	Comprehensive Case Analysis 1	1
C1-033	Learning Management through Executive Interactions	
C1-035	Seminars on Contemporary Issues	1
Term 7: (Ja	nuary to March)	
	Internship	
	Internship Seminars	

Courses and their allocation across terms are subject to change.

(D) 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 courses 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 XII<sup>th</sup> standard

Selection Process: Admission for the 30 seats based on UGAT results.

Subject	No. of Credits
Tourism Concepts 1	2
Strategic Management 1	2
Marketing Management 1	2
IT Skills 1	2

Management Process	2
Finance Management 1	2
Soft Skills Training 1	2
ONBC 1	2
ONBC 2	2
Total	18

Subject	No. of Credits
Economics of Tourism 1	2
Strategic Management 2	2
Marketing Management 2	2
Human Resource Management 1	2
IT Skills 2	2
Finance Management 2	2
Soft Skills Training 2	2
ONBC 3	2
ONBC 4	2
Total	18

### (G)Information Technology

- (H) 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.
- (I) 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.

Subject	No. of Credits
Tourism Concepts 2	2
Food Production 1	2
Food and Beverage Practicals	2
Human Resource Management 2	2
Economics of Tourism 2	2
Organizational Behavior 1	2
Soft Skills Training 3	2
ONBC 5	2
ONBC 6	2
Total	18

Subject	No. of Credits
Summer Internship in Hospitality related Organisation and Report	12
Summer Internship Seminar	6

# TERM 5

Subject	No. of Credits
Tourism Industry 1	2
Hotel Engineering 1	2
Food & Beverage Service 1	2
Front Office Operations 1	2
Facilities Planning	2
Food and Beverage Practical 1	2
Soft Skills Training 4	2
ONBC 7	2
ONBC 8	2
Total	18

# TERM 6

Subject	No. of Credits
Tourism Industry 2	2
Accommodation Operations 1	2
Food and Nutrition Science	2
Organizational Behavior 2	2
Food & Beverage Management 1	2
Food and Beverage Practical	2
Soft Skills Training 5	2
ONBC 9	2
ONBC 10	2
ONBC 11	2
Total	20

Subject	No. of Credits
Food Production 2	2
Hotel Laws 1	2
Food and Beverage Service 2	2
Tour Operations Management 1	2
Food & Beverage Practical 2	2

Front Office Operations 2	2
Soft Skills Training 6	2
ONBC 12	2
ONBC 13	2
ONBC 14	2
Total	20

Subject	No. of Credits
Summer Internship in Hospitality related Organisation and Report	12
Summer Internship Seminar	6

# TERM 9

Subject	No. of Credits
Food Production 3	2
Food & Beverage Services 3	2
Accommodations Operations 2	2
Hotel Law 2	2
Environment Management 1	2
Food and Beverage Practical	2
Soft Skills Training 7	2
ONBC 15	2
ONBC 16	2
ONBC 17	2
Total	20

Subject	No. of Credits
Front Office Operations 3	2
Food and Beverage Management 2	2
Environment Management 2	2
Food and Beverage Practical	2
Interactions with Executives	1
Mock Interviews by Executives	1
TE (Tourism Elective)	2
Accommodation Operations 3	2
ONBC 18	2
ONBC 19	2
Total	18

Subject	No. of Credits
Tourism Products of India	2
Food & Beverage Practicals	2
Hotel Engineering	2
Sustainable Tourism	2
Indian Social Political and Cultural Environment	2
Case Analysis 1	2
Soft Skills Training 8	2
ONBC 20	2
ONBC 21	2
ONBC 22	2
Total	20

# **TERM 12**

Subject	No. of Credits
Internships in Organizations and Report	12
Internship Seminar	6

# **TERM 13**

Subject	No. of Credits
Tourism Planning and Policies 1	2
Tour Operations Management 2	2
Emerging Trends in Tourism	2
Advanced Strategic Management	2
IT Skills in Tourism	2
Case Analysis 2	2
Soft Skills Training 9	2
ONBC 23	2
Total	16

Subject	No. of Credits
Tourism Planning and Policies 2	2
Marketing of Hospitality and Tourism 1	2
Tourism and Tourists	2
International Tourism	2
Tour Operations Management 2	2
Case Analysis 3	2

Soft Skills Training 10	2
ONBC 24	2
Total	16

Subject	No. of Credits
Advanced Tourism Marketing	2
Travel Agency Management 2	2
Research Methods in Tourism	2
Advanced Human Resource Management	2
Advanced Finance Management	2
Case Analysis 4	2
Soft Skills Training 11	2
ONBC 25	2
Total	16

# **TERM 16**

Subject	No. of Credits
Internships in Organizations and Report	12
Internship Seminar	6

# **TERM 17**

Subject	No. of Credits
Tourism Industry 3	2
TE (Tourism Electives)	2
TE (Tourism Electives)	2
Environmental Management	2
TE (Tourism Electives)	2
Case Analysis 5	2
Soft Skills Training 12	2
ONBC 26	2
Total	16

Subject	No. of Credits
Tourism Industry 4	2
Information Technology in Tourism	2
TE (Tourism Electives)	2
TE (Tourism Electives )	2

Legal Aspects of Tourism	2
Case Analysis 6	2
Soft Skills Training 13	2
ONBC 27	2
Total	16

#### Term 19

Subject	No. of Credits
Internship in Organizations and Reports	12
Internship Seminar	6

#### Scheme of Evaluation:

### Master of Business Administration (MBA) Course

Each subject or component of evaluation is split into certain number of units. The number of units will be approximately the number of minimum contact hours divided by 10. The teacher teaching the subject, with the consent of the Departmental Council, will decide the method as well as the content of evaluation of each unit of each subject.

Competencies with respective grades will be given in the detailed Grade Sheet that will be issued at the end of the Program.

The teacher will submit at the end of every month, the details of the Grades awarded to each student as well as the percent of attendance till that point of time to enable the student to benefit from timely feedback.

No component of evaluation shall exceed 40% weight in the total evaluation of the subjects.

The method as well as the content of evaluation of each credit of Internships such as the Internship Report, Internship Seminar, Project Courses and Courses of Independent Study will be decided by the concerned guide with the consent of the Department Council. The respective teacher or the guide will do the assessment as well as grading.

All Seminars will be organised as public seminars, where anybody from the audience can ask questions, unless the organisation on which the work was done requires the results to be kept confidential. In the latter case only the examiners will be present during the seminar.

All examinations will be open book examinations. The prescribed text distributed to the students as well as other hand written notes of the student can be used by the student while answering the examinations. After evaluation, each student will be graded for each subject, as per the following scheme of grades and grade points.

### Grade

A: Excellent 8.00 upwards
B: Good 6 to < 8
C: Satisfactory 5.5 to < 6
D: Low Pass 5 to 5.5
F: Failed 0 to < 5.

Teachers will use the following grades (and not grade points) with equivalent grade points for individual components of evaluation:

A+: 10; A:9; A-:8; B+:7.5; B:6.75; B-:6; C+:5.9; C:5.7; C-:5.5, D+:5; D:3.5, D-1.7, F:0

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#### **RESEARCH STUDENTSHIP**

The University invites applications for Research Studentship from full-time research fellows who are registered for the Ph.D. degree course 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**

- e. The full-time Research Fellow should have at least second class at the graduation level and should have secured a Master's Degree by papers with minimum 55% marks or equivalent grade and/or by research from Goa University or from any other University recognised by Goa University.
- f. A copy of the latest half-yearly progress report duly approved by the FRC should be produced.
- g. In case the half-yearly progress reports are not satisfactory, Research Studentship is likely to be terminated.
- h. A full-time Research Fellow holding any other scholarship is not eligible to apply.
- i. The Research Fellow has to sign Muster Roll which will be available in the respective Department, twice every day, in the morning and in the evening.
- j. The Fellowship is for a period of two years and on the date of application the applicant should not have completed more than eight terms.
- k. The Research Fellow is required to apply for the second year along with the recommendation of the Guide and the certification of the HOD regarding attendance of the candidate and research work done by him/her.
- 8 Declaration from the candidate that he/she is not employed.
- iii. Scholars selected for University research/assistance/fellowship/studentship will be entitled for 30 days leave in an academic year. Leave beyond 30 days will be without scholarship.
- iv. The applications will be screened by University Research Committee and its decision will be
- v. The Research Fellow is required to return the money paid to him/her to the University in case the Ph.D. course of study is terminated without completion. The Research Fellow shall be required to submit an undertaking that he/she shall complete the course, failing which the amount paid to him/her shall be refunded to the University.

### **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:

### 1. For 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.

#### 2. For 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), 4<sup>th</sup> 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.
- **10. 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 has been discontinued.

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 (Prof. B. F. Rodrigues, Department of Botany, e-mail: felinov@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
2. Prof. G. D. Parikh Memorial Scholarship	M. A. Economics
3. Dr. P. R. Dubhashi Award	M.A. Economics, Political Science, 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	M. A. Marathi
Wader Memorial Prizes	
8. Dr. V. V. R. Varada Chari Gold Medal in Marine Science	M.Sc. Marine Science (Specialization in Oceanography)
9. Late Dr. Leo Mackensen Barros Gold Medal	M.Sc. Marine-Biotechnology
10. Shri Megha Shyam Parshuram	M.A. Portuguese,
Deshprabhu Parithoshik	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. X <sup>th</sup> Indian Council of Chemistry Conference	M.Sc. Inorganic, Organic& Physical Chemistry (1 each)
14. Late Dr. G. V. Kamat Helekar Endowment 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	
<b>Educational Trust Endowment</b>	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)
26. 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	M.F.S.
Gold Medal	
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 Award Gold Medal	M.Sc. Marine Biotechnology
33. CSI, Goa Chapter - Gold Medal	M.C.A.
34. Yeshwant Govind Kamat Award	B. Sc. Mathematics of Goa University student enrolled for M. Sc. Maths in Goa University.
35. Finalists Do Setima Ano Do Liceu –	M. A. Portuguese, M. Sc. Mathematics
1957 Gold Medal	
36. Dr. Wilfred De Souza Gold Medal	M. S. (Surgery)
37. Shrimati Malati Chauhan & Shri Shivdayal Singh	MBA
Chauhan Memorial Gold Medal	
38. C. X. Furtado Medal	M.Sc. Advanced Ecology at M.Sc. Botany
	OR Evolutionary Biology at M.Sc. Zoology
39. Late Shri Anant Ramkrishna S. Dhume	M. A. History
Gold Medal	
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.Sc. in Mathematics & M.Com. in Accounting & Finance

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.

# **LIST OF AFFILIATED COLLEGES**

	LIST OF AFFILIA	ATED COLLEGES			
Sr. No	Name of College	Address	Name of Principal	Telephone/	Courses Offered
INO				Fax	
1	Parvatibai Chowgule College of Arts & Science,	P.O. Fatorda, Margao, Goa-403602(India)	Dr.R.V. Gaonkar principal@chowgulecollege.ac.i n	2759504, 2759231 2759062 2759067	Grant-in-aid Programs B.A./B.Sc/B.A.in English, History, Philosophy, Hindi, Geography, Economics, Konkani, Marathi, Psychology /B. Sc in Physics/ Chemistry/ Botany, Zoology/ Geology/ Computer Science/ Mathematics, Biotechnology, Research Centre in Hindi/ Research Centre in Geography Self-financed Programs BA Portuguese/BA Mathematics, B. Sc Geography , M. A. (Geography)/ M.Sc.(InfoTech)/PGDCA/ M.Sc.in Analytical Chemistry /PG Diploma in Geoinformatics PG Dip. in Clinical Genetics
2	Dempo Charities Trust	P.O.Box No.222,	Dr. Yasmin Modassir	2462376	Grant-in-aid Programs
	Dhempe College of Arts & Science,	Miramar,Panaji Goa – 403 001	dhempe@rediffmail.com	2461507 2462315- (Fax)	B.A./B.Sc/B. A. in Konkani/ Marathi/ Hindi B.A. inEnglish/Economics/Political Science/ History/Philosophy & Psychology/B. Sc. in Chemistry/ Botany/ Physics/ Geology/ Zoology/ Biotechnology/B.Sc. Computer Science/ Mathematics Self-financed Programs B.Sc. Biotechnology P. G. Diploma Course in Journalism & Mass Communication,
3	Carmel College of Arts,	Nuvem, Salcete-Goa-403	Dr.(Sr) M. Aradhana A.C.	2790959	Grant-in-aid Programs
	Science & Commerce for Women	604	carmel_goa@sancharnet.in	2790714- Fax	B.A/B.Sc/B.Com./ B.Sc. in Biotechnology/ Electronics/ Chemistry, Botany, Zoology, Physics, B.A.in Psychology, History, Political Science, Economics, Konkani, English) Self-financed Programs M.A.(Counseling Psychology),M. Com.
4	Ponda Education Society's Shri Ravi S. Naik College of Arts & Science,	P.O.Box No.3, Farmagudi, Ponda-Goa 403 401	Dr. A.S. Dinge pesponda@sancharnet.in	2335171 Fax. 2335296	Grant-in-aid Programs  B.A./B.Sc./  B. Sc. in Microbiology/Physics,  Botany, Zoology, Chemistry  B.A. in Political Science, Marathi
5	St. Xavier's College of Arts, Science & Commerce	Mapusa, Bardez, Goa	Rev.Fr. Dr. Jose Walter Benigno de Sa (Ph)2254927 <u>xavierscollege@sancharnet.in</u> xavierscollege@bsnl.in	2262356 2262356- Fax.	Grant-in-aid Programs B.A /B.Sc. /B.Com/ B.A.in International Studies/ Journalism/ B.A. in Hindi/Marathi/Konkani/ Mass Comm. & Videography/ Psychology/ English/ Journalism B.Sc.in Mathematics/ Microbiology/ Physics/ Botany/ Computer Science/ Electronics/ Chemistry Self-financed Programs B.Sc. Biotechnology M.Com /MA(Psychology)/BBA/BCA

					M. Sc. in Physical Chemistry
6	Dnyanprassarak Mandal's College of Arts, Sou. Sheela Premanand Vaidya College of Science & V.N.S. Bandekar College of Commerce,	Assagao, Bardez-Goa- 403 507.	Dr. D.B. Arolkar dbarolkar@rediffmail.com Dmscollege@yahoo.com	2268488 2268683 Fax- 2268683	Grant-in-aid Programs B.A./B.Sc./B.Com./. B. Sc in Chemistry/ Electronics/ Computer Science Self-financed Programs M. Com/M.Sc. (Pharmaceutical Chem.) BBA/BCA Research Centre in Commerce Research Centre in Chemistry
7	Govt. of Goa Govt. College of Arts, Science & Commerce	Sanquelim, Goa-403505	Dr. Lucy James (Officiating) govcol@sancharnet.in	2364271 Fax- 2364271	Grant-in-aid Programs B.A/B.Sc./B.Com./ B. Sc in (Biotechnology)
8	Govt. of Goa Govt. College of Arts, Science & Commerce	Quepem-Goa.	Shri. Bhaskar Nayak gcascq@rediffmail.com	2662342 Fax- 2664239	Grant-in-aid Programs  B.A./B.Sc./B.Com./M.Com/ Research Centre in Commerce
9	Government of Goa Govt. College of Arts, Science & Commerce	Khandola, Marcela-Goa. 403 107	Dr. Seema Rath (Officiating) gcasck@rediffmail.com	2288369 Fax- 2287718	Grant-in-aid Programs B.A./B.Sc./B.Com./ B.Sc. in Microbiology/ Computer Science
10	Goa Salesian Society's Don Bosco College	Panaji-Goa	Dr. Raju George dlophyedu@yahoo.co.in donboscocollegegoa.com	5644321/ 2221986 Fax- 2224131	Self-financed Programs B.C.A/B.P. Ed./BTTM/ BSW/B.B.A./MSW B.A. in Mass Media
11	Zantye Brothers Educational Foundation's Narayan Zantye College of Commerce	Bicholim, Goa-403529	Shri. Rajesh Amonkar (Officiating) <u>zantyeedu@rediffm</u> ail.com	2361377 2363769 Fax- 2361377	Grant-in-aid Programs B.Com. Self-financed Program M.Com Research Centre in Commerce
12	Murgaon Education Society's College of Arts & Commerce,	Zuarinagar, Goa-403726	Dr. R.B.Patil mescollegel@rediffmail.com	25555772 Fax- 2556010	Grant-in-aid Programs B.A/B.Com/B.Com. shipping Management Self-financed Program BCA/BBA/BA Psychology/BBA Shipping Management
13	Govt. of Goa, Govt. College of Arts & Commerce	Virnoda, Pernem, Goa-403512	Dr. Gervasio S.F.L. Mendes Acting Principal gcacpg@sancharnet.in	2201210 Fax- 2201762	Grant-in-aid Programs B.A./B.Com.
14	Rosary College of Commerce & Arts	Navelim-Goa, India- 403707	Rev.Dr. Simao Diniz rosary_1990@sify.com	2736864/ 2701564 Fax- 2736864	Grant-in-aid Programs B.Com./B.A. Self-financed Programs B.C.A./B.B.A./M. Com.
15	Fr. Agnel College of Arts & Commerce	Pilar, Goa-403203	Fr. Fredrick Rodrigues (Officiating) fragnelcol@rediff.com fr.agnelcol@yahoo.co.in	2218673 Fax- 2219833	Grant-in-aid Programs B.Com./B.A. Self-financed Program B.C.A.
16	Cuncolim Educational Society's College of Arts & Commerce	'Shri Pio F. Lawrence Complex' Cuncolim, Salcete, Goa-403703	Smt. Savita S. Nadkarni (Officiating) Cescac21@yahoo.co.in	2865210 Fax- 2865210	Grant-in-aid Programs B.A./B.Com.

17	Dnyan Prabodhini Mandal's Shree Mallikarjun College of Arts & Commerce	Delem, Canacona, Goa-403702	Dr. S. M. Nadaf (Offg) dpmsmc@sify.com	2633422 2633433	Grant-in-aid Programs B.A./B.Com.
18	Dempo Charities Trust's S.S. Dempo College of Commerce & Economics	Serra Bldg; Near All India Radio, Altinho, Panaji Goa 403 001	Dr. Radhika S. Nayak	2226806 Fax- 2421734	Grant-in-aid Program B.Com Self-financed Programs M.Com./BBA/ PG Diploma in Event Management. M.A.in Tourism & Heritage Management.
19	Vidya Vikas Mandal's Shree Damodar College of Commerce & Economics,	P.O.Box No.347, G.R.Kare Road,Tansor, Comba, Margao-Goa 403 601	Dr. Prita Mallya principal@damodarcollege.org dancoll@sancharnet.in	2714224- extn.21 Fax- 2732084	B.Com.  Self-financed Programs  M.Com/B.C.A./B.B.A.(FS)/BBS  (FS)/Research Centre in Commerce Research Centre in Management
20	Goa Vidyaprsarak Mandal's Gopal Govind Poy Raiturcar College of Commerce and Economics,	Post Box No. 102, Farmagudi-Ponda, Goa-403401	Shri. P.M. Bhende gvmcce@sancharnet.in	2335875 Fax- 2335819	Grant-in-aid Program B.Com Self-financed Programs M.Com./BCA.
21	Saraswat Vidyalaya's Sridora Caculo College of Commerce & Management Studies	Telang Nagar Khorlim, Mapusa-Goa-403 507	Dr. Santosh B. Patkar Caculo_college@sity.com	2254478/ 2250042 Fax- 2250208	B.Com Self-financed Programs BBA/BCA
22	Vidya Vikas Mandal's H.M.N. Gaunekar Institute of Management Training & Research	Shree Damodar College Complex, Margao-Goa	Shri. Atul Shah (Director) imtr goa@yahoo.com	2700667 2732663 Fax- 2732084	Self-financed Program PG Diploma in Management. (PGDM)
23	Vrundavan Institute of Nursing Education	Near Binani Glass Fibre Pvt. LTD, Mushir Wado, Colvale Bardez-Goa- 403513	Ms. B.G.Bhavani. (Acting) vhrc@sancharnet.in	3260844 Fax- 2250309	Self-financed Program  B.Sc. Nursing
24	Victor Medical & Research Foundation College of Nursing	C/o Apollo Victor Hospital, Malbhat, Margao-Goa.	Ms. Maria Antao Antao_maria@yahoo.com info@alconvictorgroup.com	2728888 Fax- 2726090	Self-financed Program B.Sc. Nursing
25	Institute of Nursing Education, Goa.	Bambolim-Goa	Mrs. Carol Noronha nursing@sancharnet.in	2226505	Grant-in-aid Programs  B.Sc. Nursing  M.Sc. Nursing
26	Shivgram Education Society's Shri Kamaxidevi Homoeopathic Medical College & Hospital,	'Shiv Shail' Shiroda Goa 403 103, India	Dr. S.D. Naik (offg)	(0)2306842 2307442 2307441 (Hos) 2306218 Fax- 2307001	Self-financed Program B.H.M.S.
27	Bharateeya Sanskriti Prabodhini's Gomantak Ayurveda Mahavidyalaya & Research Centre	Shiroda-Goa-403103	Dr. Anura Bale ayurgoa@sancharnet.in ayurgoa@rediffmail.com www.ayurvidnyangoa.com	2306309 Fax- 2307394	Self-financed Program B.A.M.S.

28	Devi Sharvani Education Society's V.M. Salgaocar College of Law	Miramar, Panaji-Goa-403 001, India.	Dr. K.S. Rao (Offg)	2462225 Fax- 2464211	Grant-in-aid Programs B.A. LL.B./ LL.B.(Hons) Self Financed Programs LLB Degree/ LL. M. & Research Centre.
29	Vidya Vikas Mandal's  Govind Ramnath Kare  College of Law	P.O. Box No.777, Govind Ramnath Kare Road , Tansor, Comba, Margao- Goa-403601	Shri. A.S. Nadkarni karelaw_goa@rediffmail.com	2715510 Fax- 2732661	Grant in aid programs BA LLB. /,LL.B.(Hons.) Self financed programs LLB Degree P.G. Diploma in Labour Law & Labour Welfare, and LL.M. & PG Diploma in Corporate Law
30	National Hydrographic School	C/o Headquarters, Goa Naval Area, Vasco-da-Gama, Goa- 403802	Capt. T.P.Mahato (Officer-In-Charge) nhsgoa@hotmail.com	2513951 (Extn)2800 / 2582800 Fax- 2513419	Grant-in-aid Programs  Master in Hydrographic Survey
31	Govt. of Goa Goa College of Music	Dr.T.B. Cunha Educational Complex, Altinho, Panaji-Goa 403 001	Shri Manab Das (Officiating)	2432528 2232507	Grant-in-aid Programs BPA MPA (Vocal & Instrumental) MPA (Tabla)
32	Govt. of Goa Goa College of Art,	Altinho, Panaji-Goa.	Shri. M.V. Vengurlekar goartcol@goa.nic	2226104 Fax- 2426027	Grant-in-aid Programs B.F.A./Applied Art B.F.A./Painting
33	Institute of Psychiatry & Human Behaviour,	Bambolim-Goa.	Dr. Pradeep Naik (Dean In-Charge)	2458687 Fax- 2458240	Grant-in-aid Programs P.G. Courses in M.D./D.P.M. (Psychological Medicine)
34	Government of Goa, Goa College of Architecture	Dr.T.B. Cunha Educational Complex, Altinho, Panaji-Goa- 403001	Dr. Ashish K Rege Gca_goa@sancharnet.in	2436435 2227144 2236435 Fax- 2227144	Grant-in-aid Program  B. Arch.
35	Government of Goa Goa College of Home Science,	Dayanand Bandodkar Road, Campal, Panaji-Goa	Dr. Mahesh Pai (Officiating) principalgchs@rediffmail.com	2227603 Fax- 2425254	Grant-in-aid Programs B.Sc. (Home Science)
36	Ponda Education Society's Rajaram & Tarabai Bandekar College of Pharmacy Education & Research	Farmagudi, Ponda, Goa-403401	Dr .S.N.Mamle Desai principal@pespharma.edu.in	2335020, 2980501 Fax- 2335020	Self-financed Programs B.Pharm M. Pharm. Pharmaceutical Chemistry
37	Government of Goa, Goa College of Pharmacy,	Panaji-Goa.	Dr. Gopalkrishna Rao cocopharmacy@dasaone.in	2226882 Fax- 2226883	Grant-in-aid Programs B.Pharm M.Pharm Ph.D. Research Centre in 1. Quality Assurance 2. Pharmacognosy 3. Pharmaceutical Chemistry.
38	Goa Dental College & Hospital,	Bambolim Goa-403202	Dr. Anita Spadigam (Offg)	2459812- 15 (F)2459816	Grant-in-aid Programs B.D.S./M.D.S

20	Chara Barradharan	(Chin Chaill Mana)	Do D. M. Chauthaustin	2207004	Call Carray I Day
39	Shree Rayeshwar	'Shiv Shail" Karai	Dr. B. N. Shanthapriya	2307001	Self-financed Programs
	Institute of Engineering	Shiroda,	Col.principal@ritgoa.com	2307032	B.E. Electronics &
	& Information			2307099	Telecommunications Engineering
	Technology	Goa-403103		Fax-	BE. Computer Engineering
				2307001	BE. Information Technology.
40	Padre Conceicao	Agnel Ashram, Agnel	Dr. L. C. Mesquita	2791266-	Self-financed Programs
10	College of Engineering	Ganv, Verna-Goa	agnelgoa@sancharnet.in	67	B.E./ Electronics/Computer
	College of Eligilicering	403 722	agneigoa@sancharnet.iii	Fax-	Engineering/Information
		403 /22		2791268	-
				2/91268	Technology/Mechanical,
					M.E. (Information Technology)
41	Govt. of Goa, Goa	Farmagudi, Ponda,	Dr. V.N.Shet	2336301	1.BE. Civil Engineering
	College of Engineering,	Goa-403401	ppl@gec.ac.in	2336401	2.BE. Electrical & Electronics
	Goa			Fax-	Engineering
				2336401	3.BE Mechanical Engineering. 4.BE. Electronics & Telecom-
				2335021	Engineering
					5.BE. Computer Engineering
					6.BE. Information Technology
					7.BE. Mining Engineering
					8.ME. Foundation Engineering
					9.ME. Industrial Engineering
					10. ME. (ETC) Micro Electronics
					Engineering
					11. ME.(ETC) Electronics
					Communication &
					Instrumentation
					12. ME. Power & Energy
					Engineering 13. ME Computer Science &
					Engineering
					14. ME. Industrial Automation &
					Radio
					Frequency Engineering.
					Ph.D. Research Centre in
					1. Electronics &
					Telecommunications Engg
					2. Electrical & electronics
					Engineering.
					3. Mechanical Engineering.
					4. Computer Engineering.
					5. Civil Engineering
42	Con Madical	Domholies Con	Dr. Dradous Maile	2450727	Count in aid Description
42	Goa Medical	Bambolim Goa.	Dr. Pradeep Naik	2458727	Grant-in-aid Programs
	Collogo			Fax-	M.B.B.S.(P.G. Diploma
	College,			2458728	courses)/MD/MS/ M.Ch.
					Neurosurgery/MD in
					Anaesthesiology
					Bachelor in Physiotherapy (BPT)
					Bachelor of Optometry (B. Opt)
					Bachelor of Occupational Therapy
					(B. OT)
					B.Sc. in Medical Imaging
					Technology (B.Sc. MIT)
					B.Sc. in Anaesthesia Technology
	D 151 11			2000=2:	(B.Sc. AT)
43	Ponda Education	Farmagudi, Ponda Goa-	Dr. Geeta Mahadevan Iyer	2980531,	Self-financed Program
	Society's College of	403401	pes.principal.edu@gmail.com	3293574	B.Ed.
	Education				

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44	Nirmala Institute of Education	Altinho, Panaji-Goa 403 001-India	Dr. Denzil Martins (Offg.) niegoa@sancharnet.in,niegoa @gmail.com	2225633 Fax- 2420186	Grant-in-aid Programs B.Ed./ B. Ed. (Special Education) Self-financed Program PG Diploma in Guidance & Counseling
45	Goa Vidya Prasarak Mandal's Dr. Dada Vaidya College of Education	Post Box No.139, Farmagudi,Ponda- Goa 403 401.	Dr. Allan Abreo (Offg) educol@sancharnet.in	2318258 2316340 Fax- 2315168	Grant-in-aid Program  B.Ed.
46	Govt, of Goa, Govt. College of Commerce,	Borda, Margao Goa	Dr. Renji George Amballoor (officiating)	2700555	Grant-in-aid Program B.Com.
47	Goa college of Hospitality and Culinary Education	Cidade-de-Goa, Vainguinim Beach Goa 403 004	Ms. Zarina Lobo Offg Principal	2454545	Self-financed Program BBA (Hospitality & Culinary Education)
48	Don Bosco College of Engineering	Fatorda Margao Goa	Dr. C.S. Gokhale	2743944	Self-financed Programs  1.B.E. Mechanical Engineering  2.B.E Civil Engineering  3.B.E. Electronic &  Telecommunication  4.B.E. Computer Engineering
49	Vidya Prabodhini College of Commerce, Education, Computer and Management	Porvorim Goa	Sukhaji Naik (Officiating)	2412089, 2411664	Grant-in-aid Program B.Com.
50	Agnel Institute of Technology & Design	Assagao Bardez Goa	Dr. V. Mariappan	2268642 Telefax 2791205	Self-financed Programs  B.E. Mechanical Engineering  B.E. Computer Engineering  B.E. Electronics & Communication  Engineering
51	Vikas Parishad Mandre College of Commerce & Economics	Madhlamaj, Mandre, Pernem-Goa.	(Officiating Principal)	2247205	Grant-in-aid Program B.Com
52	Swami Vivekanand Vidyaprasarak Mandal's College of Commerce	Shirshire Borim Ponda Goa		2333047	Grant-in-aid Program B.Com, Self-financed Program B.B.A.
53	Sateri Pisani Education Society's Gopal Gaonkar Multi faculty College.	B.G.Associates, Off.No.FS-1, First Floor, Antansasia, Above Oriental Bank of Commerce, Near Café Bhonsle, Ponda-Goa	Dr. Manasvi M. Kamat (Officiating Principal)	976471314 8/9422444 467	1. B.Com. 2. B.B.A. 3. B.C.A.
54	Adarsha Institute of Management	Behind Indian Bureau of Mines, Agalli, Fatorda, Goa.	Dr.Dilip D. Kare Director aim.goa@gmail.com	6484091	Self-financed Program PGDBA (Banking and Finance)
55	VM Salgaocar Institute of International Hospitality Management	Manora-Raia, Salcete- Goa. 403720, India	Prof. Irfan Mirza info@vmsiihe.edu.in www.vmsiihe.edu.in	6623000 Fax 6623111P	Self-financed Program  B.Sc. International Hospitality  Management
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# LIST OF RECOGNISED INSTITUIONS

1.	National Institute of Oceanography, Dona Paula, Goa 403 004	Dr. Swa Naqvi Ph. 2450201
2.	Directorate of Archives & Archaeology, Government of Goa, Panaji-Goa. 403 001	Shri M. L. Dicholkar Ph. 0832-2226692/2435321
3.	Xavier Centre of Historical Research, Alto Porvorim Alto Porvorim, Goa – 403521	Savio Abreu Ph. 0832-2414971/2417772
4.	Malaria Research Centre (ICMR), Panaji.	Dr. Ashwani Kumar (Officer-in-charge) Ph. 0832-2222444
5.	National Centre for Antarctic & Ocean Research (NCAOR), Vasco-Da-Gama, Goa-403802	Dr. S. Rajan Ph. 0834-2520863/2520876
6.	Thomas Stephens Konknni Kendr, Alto Porvorim - Goa	Dr. Pratap Naik, S. J. Ph. 0832-2415857
7.	Fisheries Survey of India, Mormugao Zonal base, Mormugao-Goa	Dr. V. K. Mudumala (Zonal Director) Ph. 0832-2520957/2520248
8.	Syngenta Research & Technology Centre, Santa Monica Works, Corlim, Ilhas-Goa	Dr. Bhanu Manjunath Ph. 0832-2490500
9.	ICAR, Research Complex for Goa Ela, Old Goa, 403 402	Ph. 2284678/79 Fax: 2285649 Email:director@icargoa.res.in

# **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 course 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 Courses (M.Sc. & Professional Diploma) in Geographic Information Systems & Science. The Courses are open to students from India and foreign countries. The design and delivery of these Online Courses 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 <a href="http://library.unigoa.ac.in">http://library.unigoa.ac.in</a>. 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 <a href="http://jccc-ugcinfonet.in/">http://jccc-ugcinfonet.in/</a> 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 <a href="http://libcat.unigoa.ac.in/">http://libcat.unigoa.ac.in/</a>. 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 Dr. Satish R. Shetye, Vice Chancellor, Goa University, as the Chairperson.

# (c) UGC - ACADEMIC STAFF COLLEGE

This College has been functioning at the University campus since 1988 and is providing the required Orientation, Refresher and other Courses 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 course 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 course 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. Xavier's 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: R. V. Gaonkar, Principal, Parvatibai Chowgule College of Arts and Sciece, Margao-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: Budkuley K. J., Department of English

# (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 courses 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	
(iii)	Mess charges		As applicable
f.	Temporary stay (one day)	75.00	

# 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.

Wardens, Boys' Hostel Shri. Amit Srivastava Warden, Girls' Hostel Smt. Surekha Naik

# (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**

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 Students Welfare: Ghadi S** 

# (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: Fernandes M. L.

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

The Directorate of Extra-Mural Studies and Extension Services was established on 20<sup>th</sup> 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: Wagh R., Department of Computer Science & Technology

# (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: Sequeira P.

# (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 14<sup>th</sup> 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.

# 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 course 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, deemed 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 course 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 course 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 course 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 Teacher 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.-

(b) 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 course 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 Committees and 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 course-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.

#### (h) 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.

#### (xiii) 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 full-time 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.

- (iii) The institution shall undertake measures for extensive publicity against ragging by means of audio-visual aids, counselling sessions, workshops, painting and design competitions among students and such other measures, as it may deem fit.
- (iv)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.
- (v) 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.
- (vi) 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.
- (vii) 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.

- (viii) 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.
- (ix) All Universities awarding a degree in education at any level, shall be required to ensure that institutions imparting instruction in such courses 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.
- (x) 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.

- (d) 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;
  - (v) Abetment to ragging;
  - (vi) Criminal conspiracy to rag;
  - (vii) Unlawful assembly and rioting while ragging;
  - (viii) Public nuisance created during ragging;
  - (ix) Violation of decency and morals through ragging;
  - (x) Injury to body, causing hurt or grievous hurt;
  - (xi) Wrongful restraint;
  - (xii) Wrongful confinement;
  - (xiii) Use of criminal force;
  - (xiv) Assault as well as sexual offences or unnatural offences;
  - (xv) Extortion;
  - (xvi) Criminal trespass;
  - (xvii) Offences against property;
  - (xviii) Criminal intimidation;
  - (xix) Attempts to commit any or all of the above mentioned offences against the victim(s);
  - (xx) Threat to commit any or all of the above mentioned offences against the victim(s);
  - (xxi) Physical or psychological humiliation;
  - (xxii) All other offences following from the definition of "Ragging".

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.-

(iii) 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.

(iv) 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.

- (ii) 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.
- (iii) 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.
- (iv) 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.
- (v) 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.
- (vi) 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.
- (vii) 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.-

(vi) 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.

- (vii) 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;
  - (ix) Withdrawal of affiliation/recognition or other privileges conferred.
  - (x) 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.

- (e) Withholding grants allocated to it by the university, if any
- (f) Withholding any grants channelized through the university to the institution.
- (g) 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

 $\underline{\text{https://www.antiragging.in/upload/Infopack/Notarising an Affidavit.pdf}}.$ 

The entireinformation may be accessed at <a href="www.antiragging.in/site/Infopack.aspx">www.antiragging.in/site/Infopack.aspx</a>.

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).

# **ANNEXURE I**

# **AFFIDAVIT BY THE STUDENT**

l,	
	(full name of student with admission/registration/enrolment number)
	/ d/o Mr./Mrs./Ms ,
Me	ing been admitted to Goa University, have received a copy of the UGC Regulations on Curbing the nace of Ragging in Higher Educational Institutions, 2009, (hereinafter called the "Regulations" fully read and fully understood the provisions contained in the said Regulations.
b	I have, in particular, perused clause 3 of the Regulations and am aware as to what constitutes ragging.
С	I have also, in particular, perused clause 7 and clause 9.1 of the Regulations and am fully aware of the penal and administrative action that is liable to be taken against me in case I am found guilty of or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.
d	I hereby solemnly aver and undertake that
	(a) I will not indulge in any behaviour or act that may be constituted as ragging under clause 3 or the Regulations.
	(b) I will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging under clause 3 of the Regulations.
e	I hereby affirm that, if found guilty of ragging, I am liable for punishment according to clause 9.1 o the Regulations, without prejudice to any other criminal action that may be taken against me unde any penal law or any law for the time being in force.
f	I hereby declare that I have not been expelled or debarred from admission in any institution in the country on account of being found guilty of, abetting or being part of a conspiracy to promote ragging; and further affirm that, in case the declaration is found to be untrue, I am aware that my admission is liable to be cancelled.
Dec	lared thisday of month ofyear.
Sigr	ature of the deponent
Nar	ne:
	VERIFICATION
	fied that the contents of this affidavit are true to the best of my knowledge and no part of the davit is false and nothing has been concealed or misstated therein.
Ver	fied at (place) on this the (day) of (month) , (year ).
(Thi	ature of the deponent  Stature of the deponent

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# ANNEXURE II AFFIDAVIT BY PARENT/GUARDIAN

I, M	r./M	./Ms
·	ŕ	(full name of parent/guardian) father/mother/guardian of ,
Me	nace	(full name of student with admission/registration/enrolment number), en admitted to Goa University, have received a copy of the UGC Regulations on Curbing the f Ragging in Higher Educational Institutions, 2009, (hereinafter called the "Regulations"), ead and fully understood the provisions contained in the said Regulations.
(e)	I ha	e, in particular, perused clause 3 of the Regulations and am aware as to what constitutes ng.
(f)	the	e also, in particular, perused clause 7 and clause 9.1 of the Regulations and am fully aware or senal and administrative action that is liable to be taken against my ward in case my ward i diguilty of or abetting ragging, actively or passively, or being part of a conspiracy to promoting.
(g)	I he	eby solemnly aver and undertake that
	а	My ward will not indulge in any behaviour or act that may be constituted as ragging unde clause 3 of the Regulations.
	b	My ward will not participate in or abet or propagate through any act of commission o omission that may be constituted as ragging under clause 3 of the Regulations.
(h)	clau	eby affirm that, if found guilty of ragging, my ward shall be liable for punishment according to e 9.1 of the Regulations, without prejudice to any other criminal action that may be taken st my ward under any penal law or any law for the time being in force.
(i)	in t pro	eby declare that my ward has not been expelled or debarred from admission in any institution e country on account of being found guilty of, abetting or being part of a conspiracy to ote, ragging; and further affirm that, in case the declaration is found to be untrue, I am award ward's admission is liable to be cancelled.
Dec	lared	hisday of month ofyear.
Nar Add	ne: Iress:	of the deponent  e/ Mobile No.:
	•	VERIFICATION
		hat the contents of this affidavit are true to the best of my knowledge and no part of the false and nothing has been concealed or misstated therein.
Ver	ified	(place) on this the (day) of (month) , (year ).
 Sigr	 nature	 of the deponent



Affix Passport size photo

# GOA UNIVERSITY Taleigao Plateau. Goa 403 206 2015-16

# APPLICATION FORM FOR POSTGRADUATE PROGRAMME

Completed Application should be submitted to the Head of the concerned Department. (Students must also apply online)

Registration No. (Undergradua	ate level)				
*APPLICATION NO.					
APPLICATION FOR ADMISSION	TO THE				(Part I) PROGRAMME
1. (a) Name of the Candida					
(As appears in X class certific	ate)	•••••			
(b) Date of Birth					
(c) Father's Name					
(d) Mother's Name					
2. Local Address					
(In detail)					
Pin Code	Telephone No				
E-mail	Mobile No				
3. Permanent Address					
(in detail)		•••••	•••••	•••••	
Pin Code	Telephone No.				
l (a) Nationality	(h) Catagony	50	СТ	OBC	General

5. Particulars relating to Degree Examination							
Examination	Month & Year	University	Main subjects	Aggregate Marks	No. of attempts	Class obtained	

Exami	nation	Month & Year	University	Main subjects	Aggregate Marks	No. of attempts	Class obtained

<b>-</b>	S(f) = 11 = 0 = 1								
6.	Office Use Only  Name of the College	last attended							
0.									
7.	( With address)  7. No. of Units of 100 marks offered at the third year level in the subject applied for:								
8.									
9.	Marks obtained in postgraduate course	•	the third year	examination for	which admission for				
Suk	jects	Marks	Total	% Scored	Remarks				
info	lare that all the above mation is found to be e by the Rules and Re	e information furn false, my admissi	on to the course	correct and authenti	If admitted, I agree to				
		DECLARATION	I BY THE PAREN	T/GUARDIAN					
In the event of my ward Shri./Smt/Kumbeing admitted to the University, I shall be responsible for his/her conduct conductive to the Academic activities of the University. My ward shall abide by the Rules and Regulations of the University.									
Nam	e and Address of Pare	ent/Guardian							
Tel.	No./Mobile	Fax No. (i	f any)	Signature o	f Parent/Guardian				

FOR OFFICE USE ONLY						
Registration Fee						
Challan No & date						

Affix
Passport
Size
Photo

# **GOA UNIVERSITY**

Taleigao Plateau, Goa 403 206 2015-16

Completed application should be submitted to the Academic PG Section

# APPLICATION FORM FOR REGISTRATION FOR THE M.Phil./Ph.D. DEGREE

Name of the Dept	
(a) Name in full in Capital letters: Shri/Smt/Kum  (As appears in degree certificate)	
Date of Birth	
Father's Name	
Mother's Name	
2. Address (Local):	
Pin Code Telephone No	
E-mail Mobile No Mobile No	•••
3. Address (Permanent):	
Pin Code Telephone No	
<ol> <li>Whether Employed: Yes/No (Please tick)</li> <li>If yes, please give details and enclose NOC from the Employer:</li> </ol>	
Name of the Employer :	
Address of the Employer :	
Pin Code Telephone No	
Signature of the Employer (with stamp):	
5. Marital Status: Single / Married (Please tick)	
If Married,	
Name of Spouse:	
Address:	
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Place & Date :		Signature of t	he Head of University Departme	nt/Institution
Signature of Co	o-guide (if any)		Signature of Cand	lidate
	and date of the payment	of the tuition fee including the	University's share:	
15. Date of Supe	erannuation :			
13. The name of	the institution where th	e applicant proposes to work :.		
	·		5:	
·				
_	Guide/Supervisor erannuation:			
9. The name of the		er whom the applicant propose		
8. The title of the	·			
	nd the date of the provisi nould be attached to the		te issued by this University. A c	opy of the
M.Phil				
Masters				
Bachelors				
Examination	Month & Year	University	Optional Subjects	Class

Pin Code......Telephone No .....

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	Schedule of fees for the Academic Year 2015-16	
Sr. No.	PARTICULARS	Fees
1.	Tuition Fee (Yearly)	
а	M.A./ M.Com (reg)/ M.Sc. (Maths)	5,100.00
b	M.Sc. (other than Maths & Electronics)	10,200.00
С	M.Sc. (Electronics)	13,350.00
d	M.A.(International Studies)	6,350.00
е	M.B.A. (Financial Services)/M.B.A	98,200.00
f	IMBA	66,000.00
g	MCA/MTech	14,800.00
h	M.Phil	10,200.00
i	M.Phil (for Sciences)	11,500.00
j	PG Dip. Applied Plant Science	19,650.00
k	PG Dip. Clinical Genetics & Medical Lab. Techniques	35,230.00
1	M. Sc. Maths (CS) Adv PG Dip. In Marine Micro/ Marine Microbiology	12,700.00
m	Ph.D	10,000.00
n	M.Lib	22,050.00
0	B.Lib	18,900.00
2.	Registration fee	22,050.00
а	a) Goa University students	500.00
b	b) Outside University Students.	2,300.00
3.	Gymkhana, Student Union, ID Card fee	410.00
4.	Student Aid Fund	120.00
5.	Laboratory fee/ Computer fee	
а	Applicable for Ph.D Students	1,000.00
b	Applicable for Other than Ph.D Students	810.00
6.	Annual Internet fee	
а	Applicable for Ph.D Students	500.00
b	Applicable for Other than Ph.D Students	230.00
7.	Annual Library fee	460.00
а	Applicable for Ph.D Students	1000.00
b	Applicable for Other than Ph.D Students	460.00
8.	Caution Deposit (Refundable)	1750.00
9.	Eligibility fees	
а	Indian students from other universities	500.00
b	Foreign students	3000.00
10.	Migration Certificate fees	400.00
11.	Duplicate Migration Certificate	500.00
12.	Cancellation of Migration Certificate (after 6 months)	200.00
13.	One time admission fee for foreign students	30000.00
14.	Transcripts	
а	Professional Programmes	300.00
b	General Education Programmes	200.00
С	Attestation of Academic Record	300.00
15.	Tuition fees for foreign students other than ICCR	Double the fees payable
		by Indian students

# REGISTRATION AND FEE STRUCTURE (EXCEPT MBA, MCA & IMBA) - 2015-16

No student will be permitted to register herself/himself for more than one course of study of this University or any other University simultaneously. All candidates who are given admission in the University Departments will have to fill in a registration form free of cost from the respective Departments and deposit the prescribed fee in the branch of SBI on the University campus. The annual tuition fee should be paid in full at the time of registration.

Courses	M.A./M.Com (reg) /M.Sc (Maths)	M.Sc (other than maths & Electr.)	M.Sc (Electr.)	M.A. (Intl. Studies)	MBA(FS)	M.Phil	M.Phil for Science	M.Lib.	PG Dip. Cl. Gen. & Med. Lab	B.Lib.	Ph. D. (for all Depts)
Fee Particulars											
Tuition Fee (Yearly)	5100	10200	13350	6350	98200	10200	11500	22050	35230	18900	10000
Registration fee GU students Outside Univ Stud.	500 2300	500 2300	500 2300	500 2300	500 2300	500 2300	500 2300	500 2300	500 2300	500 2300	500 2300
Gym, Stud. Union ID Card	410	410	410	410	410	410	410	410	410	410	410
Stud. Aid fund	120	120	120	120	120	120	120	120	120	120	120
Lab fee/Computer fee	810	810	810	810	810	810	810	810	810	810	1000
(Wherever applicable) Annual Internet fee Annual Library fee	230 460	230 460	230 460	230 460	230 460	230 460	230 460	230 460	230 460	230 460	500 1000
Caution Deposit (Refundable)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750

#### Note:

- 1. Eligibility Fee for students of other Universities is Rs.500/- & For foreign Students Rs.3000/-, Tution Fees & Eligibility fees for ICCR students is at par with the Indian students.
- 2. Those applying under reserved categories should submit the certificate to that effect issued by the competent authority. No other certificate will be considered for admission against these categories.
- 3. One time admission fees for foreign student is Rs. 30,000/-. Tuition fee payable by Foreign Student shall be double the payable by Indian Students.
- 4. The above fees are for the academic year 2015-16 and are subject to revisions which shall be made applicable to the existing batches as well