Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award

PROSPECTUS OF SELF-FINANCED

Undergraduate Programmes

2022-2023

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Introduction

Parvatibai Chowgule College of Arts and Science is a premier educational institution in the State of Goa, offering courses at the Graduate and Postgraduate levels as well as Ph.D. programmes. Parvatibai Chowgule College is accredited by NAAC with Grade 'A+' (CGPA of 3.27 on a 4-point scale in the 4th cycle). The college was adjudged by Goa University as the "Best Affiliated College", at the time of its Silver Jubilee celebrations in the year 2009. It was also conferred with the "Best Educational Institute" award by Business Goa in 2014.

Having been conferred with the autonomous status by University Grants Commission in June2014, this college became the first autonomous college in the State of Goa. In the National Institutional Ranking Framework conducted by the Ministry of Human Resource Development (MHRD), Govt. of India for colleges across the country, our college was ranked in the Rank Band of 101-150 in the year 2018, followed subsequently by being in the Rank Band of 151-200 in the years 2019 and 2021. In 2017, the college was awarded 'DBT Star College Scheme' by Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India, being the first college in Goa to receive grants under this prestigious scheme. Our college is honoured with the 'Best Internship Partner' award by Goa Rugby Union at the Goa Rugby Awards 2018. Our College is categorized as 'Band A' institution(Rank between 06-25) in category of "Institutes and Colleges (Govt. and Govt. Aided)" in Atal Ranking of Institutions on Innovation Achievement(ARIIA) 2020 announced by MHRD, Government of India, in 2020.

Our College has also been rated at '4.5 Star' for undertaking various activities prescribed by Innovation Cell, Ministry of Education, Government of India to promote innovation and start-ups in campus during the IIC Calendar Year, 2019-20 and accordingly selected as a Mentor Institute under the Mentor-Mentee Program 2021-22 of IIC, MIC. Our college is the only college selected as Mentor Institute in the entire state of Goa.

Since its inception, the College has always been at the forefront in educational innovation. Presently the college offers undergraduate, postgraduate, postgraduate diploma, certificate courses and Ph.D. programmes in the Arts, Science and the Vocation streams. Today, the College offers twenty-three undergraduate and seven post-graduate programmes, some of these courses are unique in Goa.

The various programmes offered at the undergraduate level in the Arts Stream are: *English, French, Hindi, Konkani, Marathi, Mathematics, Economics, Geography, History, Philosophy, Psychology, and Sociology.* Programmes in the Science Stream are: *Biochemistry, Biotechnology, Botany, Chemistry, Computer Science, Geography, Geology, Mathematics, Physics, and Zoology,* and the Programme in Vocational stream is B.Voc. in *Software Development.*

The various Post Graduate degree programmes offered are *M.Sc. in Information Technology, M.Sc. in Analytical Chemistry, M.Sc. in Geoinformatics, M.A. in Geography, M.A. in Child Psychology and Child Development, M.A. in Hindi and M.A. in English.*

The various Post Graduate diploma programmes offered are *Post Graduate Diploma in Computer Applications (PGDCA), Post Graduate Diploma in Geoinformatics and Post Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques.*

The various Self -Financed Programmes offered at the undergraduate level are:

1. B.Sc. in Biochemistry
2. B.Sc. in Biotechnology
3. BVoc in Software Development

This prospectus provides information, in a nutshell, on these above-listed programmes for the benefit of students who are deciding about taking admission to any of these programmes.

How to apply for admission:
To apply for admission, please visit our college website
http://www.chowgules.ac.in/
Complete the online admission form as per instructions provided therein.

For further details and queries:
Email: sfpadmission@chowgules.ac.in

Bachelor of Science in Biochemistry

(B.Sc. in Biochemistry)

(Self-Financed)

Programme Code: BCH

Duration: Three Years (Six Semesters)

Aim of the Programme:

The aim of the B.Sc. Biochemistry program is to build a thorough understanding of the fundamentals of biochemistry, develop analytical skills and equip the students with the knowledge to apply in research and industry.

Eligibility and Selection Procedure:

A student with a minimum score of 50% at HSSC Examination (with PCB) from a recognized University/Institute is eligible.

Total Number of Seats (including reserved seats): 20

Total Fees for First Year   (Semesters 1 and 2) : ☐ 71029/-
Total Fees for Second Year (Semesters 3 and 4) : ☐ 71029/-
Total Fees for Third Year   (Semesters 5 and 6) : ☐ 71029/-

*Note: Fees for the academic year 2022-2023 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the B.Sc. in Biochemistry programme: 130

Course structure of B.Sc. in Biochemistry

Sr. No.	Component	Credits Required
1	Component A-Single Major (B.Sc Biochemisty)	92
2	Component B-Foundation courses	28
3	Component C-Extra curricular	6
4	Component D-Internship	4
	Total Credits Required	**130**

Course Structure of B.Sc. in Biochemistry (Single Major) - Component A

SEMESTER	CORE		ELECTIVE			
I	**BCH-I.C-1** Molecules of Life	**BCH-I.C-2** Cell Biology	--------	--------	--------	--------
II	**BCH-II.C-3** Protein Chemistry	**BCH-II.C-4** Biophysics	--------	--------	--------	--------
III	**BCH-III.C-5A** Metabolism of Biomolecules		**BCH.E-1** Tools & Techniques in Biochemistry	**BCH.E-17** Enzymology	**BCH.E-18** Fundamentals of Microbiology	**BCH.E-4** Plant Biochemistry
IV	**BCH-IV.C-6A** Immunology		**BCH.E-5** Human Physiology	**BCH.E-6** Nutritional Biochemistry	**BCH.E-19** Endocrinology	**BCH.E-8** Advanced Cell Biology
V	**BCH-V.C-7** Molecular Biology		**BCH.E-9** Concepts of Genetics	**BCH.E-10** Regulation of Gene Expression	**BCH.E-20** Industrial Microbiology	**BCH.E-12** Bioinformatics
VI	**BCH-VI.C-8A** Clinical Biochemistry		**BCH.E-21** Introduction to Pharmacology	**BCH.E-22** Food Biochemistry	**BCH.E-11** Genetic Engineering and Biotechnology	**BCH.E-23** Environmental Chemistry

GENERIC ELECTIVE COURSE **:** Biochemical Correlation of Diseases

SKILL ENHANCEMENT COURSE : Nutraceutical Product Development

*Course Structure **Subject to Change** upon approval

For additional information contact:
Ms. Sarah Thomas Mesquita stm009@chowgules.ac.in

Bachelor of Science in Biotechnology

(B.Sc. in Biotechnology)

(Self-Financed)

Programme Code: BSC-BIO

Duration: Three years (Six Semesters)

Aim of the Programme:

The overall objectives of B.Sc. Biotechnology programme are to provide students with Core Courses in Biochemistry, Microbiology, Cell and Molecular Biology, Genetics and Genetic Engineering, Immunology and Industrial Biotechnology and the Elective courses in Molecular Genetics, Plant and Animal diversity, physiology and Cell culture, Biostatistics and Bioinformatics. Also, each course has a practical component where students gain hands-on experience of experiments based on concepts learned in theory. Online resources are made available through "CLAAP/ Google classroom." The students are also offered with a compulsory internship programme where students work for a minimum of 120 hours with pathology laboratories, pharma/bio-pharmaceutical companies and research institutes. In addition to regular lectures, we also organize guest lectures and alumni talk series on the latest developments in Biotechnology and possible job prospects in the field. As part of this course, students undertake a six-month project which they are encouraged to present at National Seminars and to further publish their data in peer-reviewed journals. The department endeavors to provide a theoretical backbone as we expect our students to be able to apply these concepts thereby developing analytical skills. We want students who are highly motivated to learn new concepts, comfortable in a laboratory setting and most importantly, who have a patient disposition.

Eligibility and Selection Procedure:

A student with a minimum score of 50% (CGPA of 5.3 and above in case of CBCS) at Higher Secondary School Certificate Examination level (preferably with Chemistry and Biology in the curriculum) from a recognized Board/Institute is eligible. Selection of the students for the programme will purely be based on merit due to restricted intake for the programme.

Total Number of seats (including reserved seats): 20

Total Fees for First Year   (Semesters 1 and 2): ☐ **73070/-**
Total Fees for Second Year (Semesters 3 and 4): ☐ **74595/-**
Total Fees for Third Year   (Semesters 5 and 6): ☐ **75995/-**

*Note: Fees for the academic year 2022-2023 are **Subject to Change**

‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the B.Sc. in Biotechnology programme: 130

Course structure of B.Sc. in Biotechnology

Sr.	Component	Credits
1	Component A-Single Major (B.Sc Biotechnology)	92
2	Component B-Foundation courses	28
3	Component C-Extra curricular	6
4	Component D-Internship	4
	Total Credits Required	**130**

Course Structure of B.Sc. in Biotechnology (Single Major) - Component A

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**BIO-I.C-1** Biomolecules	**BIO-I.C-2** Cell Biology	--------	--------	--------	--------
II	**BIO-II.C-3** Fundamental Genetics	**BIO-II.C-4** Basic Microbiology	--------	--------	--------	--------
III	**BIO-III.C-5** Molecular Biology		**BIO-III.E-1** Basics of Plant and Animal Sciences	**BIO-III.E-2** Metabolism of Biomolecules	**BIO-III.E-3** Biostatistics	**BIO-III.E-4** Enzymology
IV	**BIO-IV.C-6** Immunology		**BIO-IV.E-5** Plant and Animal Physiology	**BIO-IV.E-6** Tools & Techniques in Biotechnology	**BIO-IV.E-7** Evolution and Anthropology	**BIO-IV.E-8** Molecular genetics
V	**BIO-V.C-7** Concepts in Genetic Engineering		**BIO-V.E-9** Molecular medicine	**BIO-V.E-10** Environmental Biotechnology	**BIO-V.E-11** Plant Biotechnology	**BIO-V.E-12** Bioinformatics
VI	**BIO-VI.C-8** Industrial Biotechnology		**BIO-VI.E-13** Bioethics and Biosafety	**BIO-VI.E-14** Advanced Cell Biology	**BIO-VI.E-15** Food Biotechnology	**BIO-VI.E-16** Animal Cell Culture

GENERIC ELECTIVE COURSE   : Mushroom Cultivation and Vermicomposting Technology
SKILL ENHANCEMENT COURSE : Food and Fermentation Technology

*Course Structure **Subject to Change** upon approval

For additional information contact:
Dr. Starlaine Mascarenhas: scm008@chowgules.ac.in

Bachelor of Vocation in Software Development

(BVoc in SD)

(Self-Financed)

Programme Code: CSD

Duration: Three Years (Six Semesters)

Aim of the Programme:

BVoc in Software Development is a unique program with the aim to produce individuals equipped with all the skills that are required for employability in various domains of the IT industry. The program offers a blend of skills education, professional education and general education required for all round development of the individual in the field of software Development. It is a three years Degree program with exit options at the first year with Diploma certificate, second year with advanced Diploma certificate and BVoc degree at the completion of three years.

Total Number of Seats (including reserved seats): 30

Eligibility and Selection Procedure: First Come Basis

Total Fees for First Year   (Semesters 1 and 2) : □ 71470/-
Total Fees for Second Year (Semesters 3 and 4) : □ 63122/-
Total Fees for Third Year   (Semesters 5 and 6) : □ 60359/-

*Note: Fees for the academic year 2022-2023 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the B.Voc in Software Development programme: 180

Sr. No.	Nature of Courses	Credits Required
1	Skill Development Courses (18 credits per semester)	108
2	General Courses (12 credits per semester)	72
	Total Credits Required	**180**

Course Structure of B.Voc in Software Development - Component A

NSQF level/ Semester	Course Code	Course Title	Component	Course Credit
Level 4 / Semester 1	**General Education Component**			
	CSD - GE - 1	Environmental Studies	Theory	4
	CSD - GE - 2	Business Communication	Theory	4
	CSD - GE - 3	Accounting for non accountant	Theory	4
	Skill Development Component (Qualification Pack)			
	CSD-SK-1	Junior Software Developer (SSC/Q0508)	Theory	7
			Practical	10
			OJT	1
	Total Credits for semester			30
Level 5 / Semester II	**General Education Component**			
	CSD - GE - 4	Academic Writing	Theory	4
	CSD - GE - 5	Language Paper - I	Theory	4
	CSD - GE - 6	Entrepreneurship	Theory	4
	Skill Development Component (Qualification Pack)			
	CSD-SK-2	WebDeveloper (SSC/Q0503)	Theory	7
			Practical	10
			OJT	1
	Total Credits for semester			30
Level 6 / Semester III	**General Education Component**			
	CSD - GE - 7	Computer Networks	Theory	3
	CSD - GE - 8	Database Management System	Theory	3
	CSD - GE - 9	Personality Enhancement	Theory	4
	CSD - GE - 10	Software Laboratory I	Practical	2
	Skill Development Component (Qualification Pack)			
	CSD-SK-3	Media Developer (SSC/Q0504)	Theory	7
			Practical	10
			OJT	1
	Total Credits for semester			30

		General Education Component		
	CSD - GE - 11	Web Development Framework	Theory	3
	CSD - GE - 12	Software Engineering	Theory	3
	CSD - GE - 13	Maths for Competitive Exams	Theory	4
Level 6 / Semester IV	CSD - GE - 14	Software Laboratory II	Practical	2
		Skill Development Component (Qualification Pack)		
	CSD-SK-4	Media Developer (SSC/Q0504)	Theory	7
			Practical	10
			OJT	1
		Total Credits for semester		30
		General Education Component		
	CSD - GE - 15	Server Side Programing	Theory	3
	CSD - GE - 16	Software Testing	Theory	3
	CSD - GE - 17	HCI	Theory	4
Level 7 / Semester V	CSD - GE - 18	Software Laboratory III	Practical	2
		Skill Development Component (Qualification Pack)		
	CSD-SK-5	Software Developer (SSC/Q0501)	Theory	6
			Practical	6
			OJT/Project	6
		Total Credits for semester		30
		General Education Component		
	CSD - GE - 19	Cloud Computing	Theory	3
	CSD - GE - 20	Mobile Application Development	Theory	3
	CSD - GE - 21	Digital Marketing	Theory	4
Level 7 / Semester VI	CSD - GE - 22	Software Laboratory IV	Practical	2
		Skill Development Component (Qualification Pack)		
	CSD-SK-6	Software Developer (SSC/Q0501)	Theory	6
			Practical	6
			OJT/Project	6
		Total Credits for semester		30

*Course Structure **Subject to Change** upon approval
For additional information contact:
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Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award

PROSPECTUS

Bachelor of Arts (B.A.)

2022-2023

I
ABOUT THE COLLEGE

INTRODUCTION

Parvatibai Chowgule College of Arts and Science is a premier educational institution in the State of Goa, offering courses at the Graduate and Postgraduate levels as well as Ph.D. programmes. Parvatibai Chowgule College is accredited by NAAC with Grade 'A+' (CGPA of 3.27 on a 4-point scale in the 4th cycle). The college was adjudged by Goa University as the "Best Affiliated College", at the time of its Silver Jubilee celebrations in the year 2009. It was also conferred with the "Best Educational Institute" award by Business Goa in 2014.

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courses and Ph.D. programmes in the Arts, Science and the Vocational streams.Today, the College offers twenty-three undergraduate and seven post-graduate programmes, some of these courses are unique in Goa.

The various programmes offered at the undergraduate level in the Arts Stream are: *English, French, Hindi, Konkani, Marathi, Mathematics, Economics, Geography, History, Philosophy, Psychology, and Sociology.* Programmes in the Science Stream are: *Biochemistry,Biotechnology, Botany, Chemistry, Computer Science, Geography, Geology, Mathematics, Physics, and Zoology,* and the Programme in Vocational stream is B.Voc. in *Software Development.*

The various Post Graduate degree programmes offered are *M.Sc. in Information Technology, M.Sc. in Analytical Chemistry, M.Sc. in Geoinformatics, M.A. in Geography, M.A. in Child Psychology and Child Development, M.A. in Hindi and M.A. in English.*

The various Post Graduate diploma programmes offered are *Post Graduate Diploma in Computer Applications (PGDCA), Post Graduate Diploma in Geoinformatics and Post Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques.*

The College has state-of-the-art infrastructure. Science laboratories with facilities for research, multimedia-equipped auditoriums, classrooms, conference room, campus-wide Wi-Fi network, computer labs, web-based virtual infrastructure for teaching-learning (LMS-CLAAP/Google Classrooms, C-mail, Online Library), computerized library, well equipped faculty offices, FIFA accredited football ground with field turf, multipurpose ground, gymnasium and fitness centre, sports medicine and physiotherapy centre, open-air seating arrangements, cafeteria, well maintained rest-rooms, spacious well-laid four-wheeler and two-wheeler parking grounds andoffices for accounts and administration.

This institution also renders various support services that seek to provide motivation for students to excel. These support services include the Office of Information Technology, Estate Office and Student Support Services.

Two prominent student guidance facilities are available at the College: Staff Advisory Programme (mentoring) and Student Support Services. Mentoring of students is an integral part

of our educational system, providing guidance and encouragement. Mentors play a key role in this college as they nurture students and help them remain connected and engaged, thus strengthening student's performance. Student Support Services of our College has various arms such as Writing Centre, Career & Personal Counselling Centre (CPCC) and Centre for Portuguese Language & Culture (CPLC).

Our college is first in the State of Goa to establish a Centre for Teaching and Learning (CTL)in the year 2017. This Centre aims to educate faculty and students on effective integration of ICT in regular teaching- learning and provide them with hands-on experience/training.

The college has Memorandum of Understanding and collaborations with many foreign and Indian educational institutes. Under this, regular faculty and student exchange programmes are regularly initiated wherein the students can pursue their programme at a foreign University for a semester or for an academic year and can avail transfer of credits.

The College has remained committed to its mission of being an agent of change, assisting not only its stakeholders but also, through them, the community and the nation at large. The institution seeks to actively create well rounded students with positive valueswho go to become contributors to society.

PROGRAMMES OFFERED BY THE COLLEGE

UNDERGRADUATE PROGRAMMES
   (a) Bachelor of Arts (B.A.)

The various programmes offered at undergraduate level in the Arts Stream are:

English, French, Hindi, Konkani, Marathi, Economics, Geography, History, Mathematics, Philosophy, Psychology, and Sociology.

   (b) Bachelor of Science (B.Sc.)

Programmes in the Science Stream are: *Biochemistry,Biotechnology, Botany, Chemistry, Computer Science, Geography, Geology, Mathematics, Physics and Zoology.*

   (c) Bachelor of Vocational (B.Voc)

Programme in B.Voc. Stream is*Software Development*

POSTGRADUATE DEGREE PROGRAMMES

    (a) Masters of Science -Information Technology

    (b) Masters of Science - Analytical Chemistry

    (c) Masters of Science - Geoinformatics

    (d) Masters of Arts – Geography

    (e) Masters of Arts – Hindi

    (f) Masters of Arts - Child Psychology and Child   Development

    (g) Masters of Arts - English

POSTGRADUATE DIPLOMA PROGRAMMES

    (a) Post Graduate Diploma in Computer Application (P.G.D.C.A)

    (b) Post Graduate Diploma in Geoinformatics (P.G.D.G.I.S.)

    (c) Post Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques (P.G.D.C.G.M.L.T.)

Ph.D. PROGRAMMES

Geography

PROGRAMMES IN BACHELOR OF ARTS (B.A.)

The following B.A. programmesare offered:

- English
- French
- Hindi
- Konkani
- Marathi
- Economics
- Geography
- History
- Mathematics
- Philosophy
- Psychology
- Sociology#

#Third Year under Self-financed Programme

Degree to be awarded:

Though autonomous status is conferred by UGC, the College continues to be affiliated to Goa University and degrees will be awarded by Goa University indicating the name of the College.

Duration of course:

The afore-mentioned Undergraduate Degree Courses shall each have duration of three academic years. Every academic year shall consist of two semesters.

Eligibility for admission:

The College shall adopt the ordinance **OC-45.2** of Goa University with certain amendments.

Eligibility for admission to Undergraduate Programme

Eligibility for admission to the undergraduate programme leading to the degrees of Bachelor of Arts shall be as follows.

Eligibility for admission to Semester - I and Semester - II (in the first year) B. A. course

A. To be eligible for admission to the Semester-I of the Three Year course leading to the degree of Bachelor of Arts, the candidate should have passed (i) the Higher Secondary School Certificate (Std. XII) examination conducted by the Goa Board of Secondary and Higher Secondary Education in the Arts / Commerce stream, OR (ii) the Higher Secondary School Certificate (Std. XII) examination conducted by the Goa Board of Secondary and Higher Secondary Education in the Vocational stream in the subjects notified by the University under this clause from time to time, OR (iii) Std XII (Arts) or similar examination of any another body, equivalent to Goa Board of Secondary and Higher Secondary Education, Goa, and recognized as such by Goa University.

B. A candidate satisfying the conditions laid down by the University for admission to the Semester-I course in B. Sc. shall also be eligible for admission to the Semester-I of B. A. course.

C. A candidate not covered under any of the above categories but desirous of seeking admission to the said course may apply to the college. However, the Principal along with the Dean of concerned Faculty and the Chairperson(s) of Board(s) of Studies of concerned subjects shall decide the eligibility.

D. A candidate admitted for Semester-I shall be deemed eligible for admission to Semester-II.

E. A student will be allowed to undertake a core course (CC) / core elective (CE) having a prerequisite only if he/she has attained at least the grade P in the specified prerequisite course/s.

Maximum Duration of the programme

Duration for the completion of programme will be as per Goa University Ordinance OA-16.11

The total duration available for students to complete the programme shall be twice the actual duration prescribed for the programme effective from 4th June 2018.

Class strength:

Maximum number of students in a class/division shall not exceed sixty and eighty in Arts and Science faculty respectively.

The B.A. programme is structured into following four components (Ref:AO3.1.2)

- **Component A:**
  Under this component as per the choice of subject/s students can choose any one of three options:

  Option I: Single Major: A student shall choose any one subject from those stated above, as Major.

  Option II: Major–Minor: A student shall choose any two subjects from those stated above, one subject asMajor and the other as Minor.

  Option III: **Double Major:** A student shall choose any two subjects from those stated above as Major.

  A student has to complete 92 credits under this component.

- **Component B:**A student has tocomplete 28 Credits under this component.
- **Component C:**Astudent has to complete 6 Credits under this component. The activities are: NCC or NSS, Performing Art or Music and Sports. These activities are mandatory for students.
- **Component D:** This consists of internship of 4 credits. The duration of internship is a minimum of fourweeks. Students can choose to do their internship during any of the first four semester breaks of theirstudentship.

 # Course Structure of the B.A. and B.Sc. Programmes

STRUCTURE		CREDITS	SUBJECT SPECIFIC COURSES	Major (Core) + Project	Minor	Elective (Major/ Generic)
Component A (92 Credits)	CHOICE 1 : Single Major	32+4	8 Core Courses (Major) + Project Paper	8 + 1		
		48	12 Elective Courses (Major)			12
		8	2 Generic Elective Courses			2
	CHOICE 2 : Major – Minor	32+4	8 Core courses (Major) + Project Paper	8 + 1		
		24	6 Elective Courses (Major)			6
		24	6 Core Courses (Minor)		6	
		8	2 Generic Elective Courses			2

		CREDITS		Compulsory		Elective
	CHOICE 3 : Double Major	**32+4**	8 Core Courses (Major-1) + Project Paper	8 + 1		
		32	8 Core Courses (Major-2)	8		
		16	2 Elective Courses (Major-1) + 2 Elective Courses(Major-2)			4
		8	2 Generic Elective Courses			2
STRUCTURE		**CREDITS**	**FOUNDATION COURSES**	Compulsory		Elective
Component B (28 Credits)	Foundation Courses	**4**	Language	1		
		4	Academic Writing (AW)	1		
		4	Research Writing (RW)	1		
		4	*Statistical Methods/ (SM) **Elements of Basic Statistics	1		
		4	Environmental Studies (EVS)	1		
		8=(4+4 or 4+2+2 or 2+2+2+2)	Skill Enhancement Courses (SEC) of 2 or 4 credits (Internal Option Offered)			2 to 4
Component C (6 Credits)	Extra-curricular	**6 Or 3+3 Or 2+4 Or 2+2+2**	Music / Dance Programme	One Or A Combination of Programmes		
			Sports Programme			
			NCC Programme			
			NSS Programme			
			Life-skills Programmes			
			Student Exchange Programme			
			Outreach Programme			
			Fine Art			
Component D	Internship	**4**	Internship (Minimum One Month / 120 Contact Hours)	1		

* Statistical Methods (For Economics, Geography, Psychology, Botany, Biotechnology, Biochemistry, Chemistry, Computer Science, Geology, Mathematics, Physics and Zoology)
** Elements of Basic Statistics (For English, French, Hindi, Konkani, Marathi, History, Philosophy and Sociology)

Course Structure Subject to Change upon approval

II
A. BACHELOR OF ARTS – B.A
ENGLISH

SEMESTER	CORE COURSES		ELECTIVE COURSES				OPTIONAL
I	**ENG-I.C-1** Understand-ing Poetry & Drama	**ENG-I.C-2** History of English Literature from Fifth Century to the Eighteenth Century	-----	-----	-----	-----	**FC-ENG-I** Effective Communication (Arts Stream)
II	**ENG-II.C-3** Understanding Fiction	**ENG-II.C-4** An Introduction to Linguistics & Stylistics	-----	-----	-----	-----	**FC-ENG-I** Effective Communicatio (Science Stream)
III	**ENG-II.C-5** Contemporary Indian English Literature	-----	**ENG- E-2** American Literature	**ENG–E-4** New Literatures in English	**ENG-E-12** Women's Writing in India		**ENG-SEC-1** Writing for the Media I **ENG–SEC-2** Creative Writing I
IV	**ENG-IV.C- 6** Literary Criticism	-----	**ENG-E-5** The Literature of the Indian Diaspora	**ENG-E-7** Visual Literature	**ENG–E-16** World Literature		**ENG-SEC-3** Writing for the Media II **ENG-SEC-4** Creative Writing II
V	**ENG-V.C-7** Nineteenth Century English Literature	------	**ENG–E-1** Goan Literature & Culture	**ENG–E-9** Shakespeare Today	**ENG–E-17** Modern Indian Literature in Translation	**ENG–E-11** Film Studies	PROJECT
VI	**ENG-VI. C-8** Twentieth Century English Literature	**ENG-E-13** ELLT	**ENG–E-14** Latin American Literature	**ENG–E-15** Contemporary Literature	**ENG–E-8** Representation of Gender & Sexuality in Literature		PROJECT

FRENCH

SEMESTER	CORE COURSES		ELECTIVE COURSES		
I	**FRE-I.C-1** Language in Context: Developing Reading and Writing Skills Level 1 Part 1	**FRE-I.C-2** Language in Context: Developing Listening and Speaking Skills Level 1 Part 1			
II	**FRE-II.C-3** Language in Context: Developing Reading and Writing Skills Level 1 Part 2	**FRE-II.C-4** Language in Context: Developing Listening and Speaking Skills Level 1 Part 2			
III	**FRE-III.C-5** Language in Context: Developing Reading and Writing Skills Level 2 Part 1		**FRE-E-1** Language in Context: Developing Listening and Speaking Skills Level 2 Part 1	**FRE-III.E-2** French for Tourism and Hospitality Part 1	**FRE-E-3** Study of Selected Elementary Text in French
IV	**FRE-IV.C-6** Language in Context: Developing Reading and Writing Skills Level 2 Part 2		**FRE-E-5** Language in Context: Developing Listening and Speaking Skills Level 2 Part 2	**FRE-E-6** French for Tourism and Hospitality Part 2	**FRE-E-7** Introduction to Francophony
V	**FRE-V.C-7** Language in Context: Developing Reading and Writing Skills Level 3 Part 1		**FRE-E-9** Initiation to Translation	**FRE-E-10** Overview of 17th Century French Literature	**FRE-E-11** Overview of 18th Century French Literature
VI	**FRE-VI.C-8** Language in Context: Developing Reading and Writing Skills Level 3 Part 2		**FRE-E-13** Overview of 19th Century French Literature	**FRE-E-14** Business Communication in French	**FRE-E-15** Study of Collection of French Short Stories

HINDI

SEMESTR	CORE COURSES		ELECTIVE COURSES			
Semester I	HIN -I.C-1 हिन्दी कहानी एवं शब्द साधन (Hindi story and Shabda Sadhan)	HIN -I.C-2 हिन्दी कविता एवं काव्य सौंदर्य (Hindi poetry and kavya Soundarya)	-	-	-	-
Semester II	HIN -II.C-3 हिन्दी नाटक: वृत्तचित्र एवं फीचर फिल्म (study of Hindi drama, Documentary and Feature film)	HIN -II.C-4 हास्य–व्यंग्य निबंध एवं पत्रकारिता (Haasya – Vyangya Essay and journalism)	-	-	-	-
Semester III	HIN-III C-5 हिन्दी साहित्यका इतिहास (आदिकाल, भक्तिकालएवंरीतिका ल (History of Hindi literature Adikaal, Bhakti &Ritikaal)	_	HIN-III E-1 प्रयोजनमूलक हिन्दी:अनुवाद एवं पत्रलेखन (Functional Hindi : Translation and Letter Writing)	HIN-III E-2 मध्यकालीन काव्य (चयनितकविताएँ) (Medieval Poetry-selective poems)	HIN-III E-3 हिन्दी महिला लेखन (Hindi Mahila Lekhan)	HIN-III E-4 हिन्दी दलित लेखन (study of Hindi Dalit lekhan)
Semester IV	HIN-IV.C-6 हिन्दी साहित्यका इतिहास (आधुनिककाल) (History of Hindi literature – modern era	_	HIN-IV.E-5 हिन्दी पत्रकारिता : मुद्रित एवं इलेक्ट्रोनिक (Hindi Journalism - Print and Electronic Media)	HIN-IV.E-6 विशेषअध्ययन : सूर्यकांतत्रिपाठीनि राला (special study of poet – Suryakant Tripathi Nirala)	HIN-IV.E-7 विशेषअध्ययन : हिन्दी कहानी (Special study of Hindi Story)	HIN-IV.E-8 हिन्दी साहित्यकाआस्वा दनएवंसमीक्षा (कविता, कहानीएवंउपन्या स) (Appreciation of Hindi Literature and review of poems, stories and novels)
Semester V	HIN-V.C-7 भारतीय काव्यशास्त्र (Indian poetics)	_	HIN-V. E-9 कथेत्तरगद्यसाहित्य : रेखाचित्रसंस्मरण,यात्रा वृतांत,आत्मकथाएवं जीवनी (किसीविधाकीएकपा ठ्यपुस्तक) Kathetargadyasahit ya :Rekhachitra, sansmaran, yatra vrutaant, atmakatha evamjivni	HIN-V.E-10 विशेषअध्ययन:हि न्दीउपन्यास (A study of Hindi Novel)	HIN-V.E-11 मीडियालेखन : रेडियोएवंटेलीवि जन Media writing – Radio and Television	HIN-V.E-12 हिंदीनाटक(Hind i Drama)

Semester VI	HIN-VI.C-8 पाश्चात्य काव्यशास्त्र (western poetics)	_	HIN-VI.E-13 हिंदी निबंध (Hindi essay)	HIN-VI.E-14 भाषाविज्ञान (linguistics)	HIN-VI.E-15 हिंदीभाषा,लिपि एवंव्याकरण (Hindi language, script and grammar)	HIN-VI.E-16 साहित्यकाअंतरानुशासनात्मकअध्ययन (Sahitya ka Antaranushasnatmak Adhayayn)
SKILL ENHANCEMENT COURSE							

Semester-III	**HIN-III.SEC-1** हिन्दी पथनाट्य (नुक्कड़नाटक)(Hindi Street Play)
Semester-IV	**HIN-IV.SEC–2** हिन्दी एकांकी(Hindi One act Play)

KONKANI

SEME STER	CORE COURSES		ELECTIVE COURSES			
I	**KON-I.C-1** कोंकणी भास आनी साहित्याचो इतिहास – एक वळख (आरंभा साकून 1858वर्स मेरेनचो काळ) (Outline History of Konkani Language and Literature) (From beginning till 1858)	**KON-I.C-2** शणै गोंयबाबांचें कोंकणी अस्मिताये खातीर योगदान (Contribution of Shennoy Goembab towards Konkani Identity)	------	------	------	-----
II	**KON-II.C-3** कोंकणी भाशीक चळवळीचो इतिहास- एक वळख (1858 वर्स ते 1992वर्स मेरेनचो काळ ((Outline History of Konkani Language Movement) (Period from 1858 till 1992)	**KON-II.C-4** कोंकणी बोलींचो अभ्यास (Study of Konkani Dialects)	-----	------	------	------
III	**KON-III.C-5** कोंकणी भाशेचो व्याकरणीक आनी भाशाशास्त्रीय अभ्यास (Grammatical And Linguistic Study of Konkani)	-----	**KON-III.E-1** कोंकणी कवितेचो खाशेलो अभ्यास (Special Study of Konkani Poetry)	**KON-III.E-2** कोंकणी कथेचो खाशेलो अभ्यास (Special Study of Konkani Short Story)	**KON-III.E-3** कोंकणीकादंबरेचो खाशेलो अभ्यास (Special Study of Konkani Novel)	**KON-III.E-4** कोंकणी साहित्याचें आस्वादन (कथा , कविताआनीकादंबरी( )भाग (1– (Appreciation of Konkani Writings) (Part-1)
IV	**KON-IV.C-6** कोंकणी लोकवेदाचो अभ्यास (Study of Konkani Folklore)		**KON-IV.E-5** कोंकणी नाटक – एक खाशेलो अभ्यास (Special Study of Konkani Drama)	**KON-IV.E-6** कोंकणी तियात्राचो अभ्यास (Special Study of Konkani Tiatr)	**KON-IV.E-7** कोंकणी निबंदाचोखाशे लोअभ्यास (Study of Konkani Essays)	**KON-IV.E-8** कोंकणी साहित्याचें आस्वादन भाग-2 (निबंद , नाटक , तियात्र) (Appreciation of Selected Konkani Writings)(Part-2)

V	**KON-V.C-7** गोंय मुक्ती उपरांतचींकोंकणी साहित्यांतलीं स्थित्यंतरां) कोंकणी कविता , कथा आनी नाटकाचीं स्थित्यंतरां) (Important Trends in Post Liberation Konkani Literature)	-----	**KON-V.E-9** चित्रपट आनी नाटक आस्वादन (Film and Drama Appreciation)	**KON-V.E-10** वेंचीक कोंकणी कादंबरेचो समाजीक अभ्यास (Social Study of Selected Konkani Novel)	**KON-V.E-11** कर्नाटक आनी केरळ राज्यांतल्या कोंकणी साहित्याची वळख (Introduction of Konkani Literature from Karnataka and Kerala)	**KON-V.E-12** कोंकणीच्या भोवआयामी वावरांतवेंचीक व्यक्तीमत्वांचो अभ्यास (Special Study of Multifaceted Konkani Personalities)
VI	**KON-VI.C-8** भारतीय आनी पाश्चात्य काव्यशास्त्राची वळख (Introduction to the Study of Indian and Western Poetics)	------	**KON-VI.E-13** कोंकणीअध्याप नाचीपद्दत (Konkani Teaching Methodology)	**KON-VI.E-14** अर्विल्ल्या प्रसारमाध्यमांचो अभ्यास (Study of Modern Medias)	**KON-VI.E-15** कोंकणी लिप्यंतरीतसाहित्याचो अभ्यास (कन्नडआनीरोमी लिपींतल्यान) Study of Transliterated Konkani Literature (From Kannada and Romi Script)	**KON-VI.E-16** अनुवाद अभ्यास (Translation Study)

SEMESTER	GENERIC ELECTIVE COURSE
I	**KON-V.E-9** **चित्रपटआनीनाटकआस्वादन** (Film and Drama Appreciation)
II	**KON-VI.E-16** **अनुवादअभ्यास** (Translation Study)

SEMESTER	SKILL ENHANCEMENT COURSE
III	**KON-SEC-1** कोंकणीपथनाट्याचोअभ्यास (Study of Konkani Street Plays) *(Arts Stream & Science Stream)*
IV	**KON-SEC-2** कोंकणीएकांकीचोअभ्यास (Study of Konkani One Act Plays) *(Arts Stream & Science Stream)*

MARATHI

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**MAR-I.C-1** मराठीकथा : स्वरूपआणिउपयोजन (1945 – 2000)	**MAR-I.C-2** आधुनिकमराठीकविता : स्वरूपवउपयोजन (आरंभते2000)	-	-	-	-
II	**MAR-II.C-3** मराठीकादंबरी : स्वरूपवउपयोजन (1945-2000)	**MAR-II.C-4** मराठीनाटक : स्वरूपवउपयोजन (1950 - 2000)	-	-	-	-
III	**MAR-III.C-5** काव्यशास्त्र (भारतीयवपाश्चात्य)	-	**MAR- III.E-1** प्राचीनमराठीवाङ्मय (प्रारंभ – 1650)	**MAR- III.E-2** मराठीललितगद्य : स्वरूपआणिउपयोजन	**MAR- III.E-3** साहित्याभिरूचीचेस्वरूप	**MAR- III.E-4** गोमंतकीयमराठीसाहित्य: समीक्षाआणिसंशोधन (कविता, कथा, कादंबरी, बालसाहित्य)
IV	**MAR-IV.C-6** रसविचारआणिसमीक्षाविचार	-	**MAR-IV.E-5** प्राचीनमराठीवाङ्मय (1651 – 1818)	**MAR- IV.E-6** प्रवासवर्णन : एकवाङ्मयप्रकार	**MAR-IV.E-7** कार्यक्रमसंयोजनवसंचालनकौशल्ये	**MAR-IV.E-8** गोमंतकआणिकोकणयाप्रदेशातीललोककला
V	**MAR-V.C-7** व्याकरण	-	**MAR- V.E-9** मराठीवाङ्मयाचेसांस्कृतिकस्वरूप	**MAR- V.E-10** आत्मचरित्र : साहित्यप्रकारआणिउपयोजन	**MAR- V.E-11** पत्रकारिता : स्वरूपआणिकौशल्ये	**MAR- V.E-12** भाषिककौशल्येआणि व्यक्तिमत्त्वविकास
VI	**MAR-VI.C-8** भाषाविज्ञान	-	**MAR- VI.E-13** मुक्तीपूर्वगोमंतकीयमराठीवाङ्मय	**MAR- VI.E-14** मराठीप्रादेशिककादंबरी : स्वरुपआणिउपयोजन	**MAR- VI.E-15** भाषांतरविद्या	**MAR- VI.E-16** माहितीपट (डॉक्युमेंटरी) : लेखनआणिउपयोजन

ECONOMICS

SEMESTER	CORE COURSES		ELECTIVE COURSES				SEC
I	**ECO-I.C-1** Principles of Economics	**ECO-I.C-2** Mathematical Techniques for Economic Analysis					
II	**ECO-II.C-3** Economics of Growth and Development	**ECO-II.C-4** Empirical Techniques for Economic Analysis					
III	**ECO-III.C-5** Micro-economics		**ECO-E-8** Economics and Law	**ECO-E-4** Regional Economics	**ECO-E-19** Behavioral Economics	**ECO-E-21** Money and Banking	**SEC ECO-E-14** Environmental Economics
IV	**ECO-IV.C- 6** Macro-economics		**ECO-E-20** Research Methodology	**ECO-E-3** Emerging Market Economies	**ECO- E-15** Introduction to Industrial Economics		**SEC ECO-E-7** Accounting for Non-accountants
							SEC ECO-INT-4 Taxation for All
V	**ECO-V.C-7** Public Economics	**ECO-V/VI.C-9** Project	**ECO-E-9** Introduction to Econometrics	**ECO-E-1** Indian Economy	**ECO-E-11** Actuarial Economics	**ECO-E-12** Micro-economic Analysis	
VI	**ECO-VI.C-8** International Trade and Policy	**ECO-V/VI.C-9** Project	**ECO-E-10** Introduction to Operations Research for Economists	**ECO-E-2** Economics of Foreign Exchange	**ECO- E-16** Financial Economics	**ECO-E-17** Macroeconomic Analysis	

SEMESTER	GENERIC ELECTIVE COURSES		
I,II,III,IV	**ECO-INT-1** Entrepreneurship	**ECO-INT-2** Gandhian Economic Thought	**ECO-INT-3** Financial Investments for All

GEOGRAPHY

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**GEG-I.C1:** Introduction to Geography	**GEG-I.C2:** Fundamentals of Physical Geography				
II	**GEG-II.C3:** Basics of Human Geography	**GEG-II.C4:** Basics of Regional Geography				
III	**GEG-III.C5:** Cartography		**GEG- E1:** Socio Economic Survey	**GEG- E2:** Field Survey in Physical Geography	**GEG- E3:** Participatory Rapid Appraisal Techniques	**GEG- E4:** Application of Computer in Geography
IV	**GEG-IV.C6:** Basics of Geomorphology		**GEG- E5:** Basics of Climatology	**GEG- E6:** Basics of Oceanography	**GEG- E7:** Regional Geography of India	**GEG- E8:** Regional Geography of USA
V	**GEG-V.C7:** Geomorphology: Landforms and Processes		**GEG- E9:** Geography of Climate Change	**GEG- E10:** Oceans : Issues and Challenges	**GEG- E11:** Geography of Rural Settlements	**GEG- E12:** Geography of Urban Settlements
VI	**GEG-VI.C8:** Geography of Population Growth		**GEG- E13:** Introduction to Regional Planning	**GEG- E14:** Fundamentals of Economic Geography	**GEG- E15:** Geography of Tourism	**GEG- E16:** Quantitative Techniques in Geography

HISTORY

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**HIS- I.C-1** History of Goa from Earliest Times to 1961	**HIS- I.C-2** History of India from Earliest Times to 3rd Century CE	-	-	-	-
II	**HIS II.C-3** History of Goa from 1961 to the Present	**HIS II.C-4** History of India from 4th Century to 1206 CE	-	-	-	-
III	**HIS III.C-5** History of Medieval India from 1206 to 1526	-	**HIS.E-1** History of South India From Earliest Times to C. 1250	**HIS.E-2** World Civilisations: Egypt, Mesopotamia, Greece and Rome (Earliest Times to 500 AD)	**HIS.E-3** Introduction to Archaeology	**HIS.E-4** Socio-Economic History of Europe (c.800 A.D.-1700)
IV	**HIS IV.C-6** History of Medieval India from 1526 to 1707	-	**HIS.E-5** Culture and Heritage of Goa	**HIS.E-6** History of the Marathas	**HIS.E-7** Indian Archaeology	**HIS.E-8** Western Civilisation (Renaissance to French Revolution)
V	**HIS V.C-7** History of India from 1707 to 1856	-	**HIS.E-9** History of Modern China and Japan (1839-1949)	**HIS.E-10** World Revolutions	**HIS.E-11** Introduction to Constitution of India	**HIS.E-12** Introduction to Historical Method and Indian Historiography
VI	**HIS VI.C-8** Indian National Movement from 1857 to 1947	-	**HIS.E-13** History of USA (1861 – 2000)	**HIS.E-14** India After Independence (1947 – 2000)	**HIS.E-15** Introduction to History of West Asia (1900-2000)	**HIS.E-16** History of Modern Europe (1800 – 2000)

PHILOSOPHY

SEMESTER	CORE COURSES		ELECTIVE COURSES				SEC	GEC
I	**PHI-I.C-1** Moral Philosophy	**PHI-I.C-2** Logic	-	-	-	-		**PHI.INT-03** Philosophy of Existentialism in literature and Film
II	**PHI-II.C-3** Philosophy of Religion	**PHI-II.C-4** Practical Ethics	-	-	-	-		**PHI-IV.E-7** Philosophy of Human Rights
III	**PHI-III.C-5** Classical Indian Philosophy	-	**PHI-III.E1** Study of World Religions	**PHI-III.E-2** Philosophy of Mind	**PHI-III.E-3** Symbolic Logic	**PHI-III.E-4** Value Education	**PHI-V.I-2** Philosophy and Films	**PHI.INT-01** Current Ethical Issues
IV	**PHI-IV.C-6** Orthodox Indian Philosophy	-	**PHI-IV.E-6** Political Philosophy	**PHI-IV.E-7** Philosophy of Human Rights	**PHI-IV.E-8** Eco-Philosophy	**PHI-V.E-9** Philosophy of Science	**PHI-SEC-21** Practical Logic	**PHI-V.I-2** Philosophy and Films
V	**PHI-V.C-7** Ancient Greek & Medieval Philosophy	-	**PHI-V.E-11** Philosophy of Education	**PHI-V.E-12** Philosophy of Management	**PHI-VI.E-13** Contemporary Western Philosophy	**PHI-V.E-10** Contemporary Indian Philosophy		**PHI-IV.E-8** Eco-Philosophy
VI	**PHI-VI.C-8** Modern Western Philosophy	-	**PHI-VI.E-15** Philosophy of Law	**PHI-VI.E-16** Applied Philosophy (Yoga & Art of Living)	**PHI-VI.E-14** Vedanta Philosophy	**PHI-IV.E-5** Problems of Philosophy		

PSYCHOLOGY

SEME STER	CORE COURSES		ELECTIVE COURSES				SKILL ENHANCEMENT COURSES
I	**PSY- C-9** Basic Course in Psychology I (Practical Component)	**PSY-C-10** Social Psychology					
II	**PSY- C-11** Basic Course in Psychology II (Practical Component)	**PSY-II.C-3** Personality Theories					
III	**PSY-V.C-7** Experimental Psychology (Practical Component)		**PSY- III.E-2** Child Psychology	**PSY- III.E-4** Sports Psychology	**PSY-III. E-3** Interpersonal Relationships	**PSY- III.E-17** Biological Basis of Behaviour	**PSY-SEC-1** Self-Regulation
IV	**PSY-VI.C-8** Psychological Testing (Practical Component)		**PSY- IV.E-7** Psychology of Adolescence	**PSY- IV.E-6** Criminal Psychology	**PSY- IV.E-5** Psychology of Adjustment	**PSY- IV.E-9** Cognitive Psychology	**PSY-SEC-2** Basic Counselling Skills
V	**PSY-III.C-5** Psychopatholo gy I (Practical Component)	**PSY–V.CP** Project Paper	**PSY- V.E-12** Psychology of Adulthood	**PSY- IV.E-8** Positive Psychology	**PSY- V.E-11** Environmental Psychology	**PSY-V.E-15** Neuropsycho logy I	
VI	**PSY-IV.C-6** Psychopatholo gy II (Practical Component)	**PSY–VI.CP** Project Paper	**PSY-VI. E-13** Gerontology	**PSY- VI.E-14** Organizatio nal Behaviour	**PSY- VI.E-16** Cross Cultural Psychology	**PSY- VI.E-18** Neuropsycho logy II	

SOCIOLOGY

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**SOC-I.C-1** Introducing Sociology	**SOC-I.C-2** Social Change and Process	-	-	-	-
II	**SOC-II.C-3** Social Movements in India	**SOC-II.C-4** Sociology of Religion	-	-	-	-
III	**SOC-III.C-5** Social Institution in India	-	**SOC- E-1** Understanding Goa's culture	**SOC- E-2** Introduction to Qualitative Research Methods	**SOC- E-3** Introduction to NGO Management-1	**SOC- E-4** Globalization and New Media (Digital Story Telling)
IV	**SOC-IV.C-6** Sociology of Education	-	**SOC- E-5** Teaching sociology: Theory and Practice	**SOC- E-6** Contemporary Goan Society: Issues and Concerns	**SOC- E-7** An Introduction to Sociology in India	**SOC- E-8** Family, Marriage and Kinship in India
V	**SOC-V.C-7** Classical Sociology	-	**SOC- E-9** Rural sociology	**SOC- E-10** Social concerns in Contemporary India-1	**SOC- E-11** Women and Society in India	**SOC-E-12** Introduction to Social Work
VI	**SOC-VI.C-8** Introduction of Schools of Sociological Theory	-	**SOC- E-13** Urban sociology	**SOC- E-14** Social Concerns in Contemporary India-2	**SOC- E-15** Contemporary Issues of Women in India	**SOC- E-16** Migration and Society in Goa

SOC-SEC – Teaching Learning: Theory and Practice

MATHEMATICS

Course Structure for Mathematics Major

SEMESTER	CORE COURSES		Elective-I	Elective-II	Elective-III	Elective-IV	Elective-V
I	Basic Algebra	Basic Real Analysis	---------	---------	---------	---------	---------
II	Coordinate Geometry	Mathematical Analysis-I	---------	---------	---------	---------	---------
III		Mathematical Analysis - II	Abstract Algebra-I	Number theory-I	Combinatorics	Numerical Methods	
IV		Linear Algebra	Advanced Analysis	Number Theory-II	Operations Research I	Probability Theory	
V		Functions of Several Variables	Metric Spaces	Cryptography	Graph Theory	Logic and Boolean Algebra	Operations Research II
VI		Vector Analysis	Complex Analysis	Abstract Algebra - II	Computational Linear Algebra	Computers for Mathematics	Pedagogy of Mathematics

Semester	Skill Enhancement Course
Sem III	Differential Equations-I
Sem IV	Differential Equations-II

Course Structure for Mathematics Minor

SEMESTER	CORE (MINOR)
I	Basic Algebra
II	Coordinate Geometry
III	Basic Real Analysis/ Numerical Methods
IV	Mathematical Analysis-I/ Linear Algebra/ Operations Research-I
V	Graph Theory / Numerical Methods/ Operations Research-II
VI	Probability Theory/ Vector Analysis

C. CREDITS FOR EXTRA CURRICULAR COMPONENT

The following categories of extra-curricular activities are available to students under the undergraduate curriculum of Parvatibai Chowgule College of Arts and Science (Autonomous) These are:

1. Music, Dance Programme
2. Sports Programme
3. NCC Programme
4. NSS Programme
5. Life-skills Programmes
6. Exchange Programme
7. Outreach Programme (initiated by Academic Departments of the College)
8. Fine Art

ADMISSION

How to apply:

To apply for admission, please visit our college website www.chowgules.ac.inand for further details and queries contact:

Email Id :admission@chowgules.ac.in

Phone No. (0832) 2722222 during working hours (9.00 a.m. to 1.00 p.m. and 2.00 p.m. to 4.30 p.m.)

Documents required:

Students are required to bring two photocopies (self attested) of each of the following documents along with the originals at the time of admission.

a. For Goa Board students:

1. Original + Two photocopies of qualifying examination mark sheet (XIIth).

2. Original + Two photocopies of Leaving Certificate.

3. Three passport size photographs.

4. Original + One photocopy of Aadhar Card.

5. Copy of Birth Certificate.

6. Caste Certificate approved by Government of Goa (if applicable).

7. EWS Certificate approved by Government of Goa (if applicable).

b. For other Board/Universities students:

    1. Two photocopies of qualifying examination mark sheets (XIIth).

    2. Original as well as two photocopies of Transfer/Leaving certificate.

    3. Original as well as two photocopies of Migration certificate.

    4. Provisional Eligibility Certificate from Chowgule college.

    5. Three recent photographs.

    6. Original + One photocopy of Aadhar Card.

    7. Copy of Birth Certificate.

    8. Caste Certificate approved by Government of Goa (if applicable).

    9. EWS Certificate approved by Government of Goa (if applicable).

c. For International students:

International students applying directly for admission need to submit an application to the Principal stating their desire to seek admission along with their Passing Certificate, Transcript of records, copy of syllabus containing details of course of studies pursued in various courses in the examination passed by the applicant (duly countersigned by High Commissioner of India in the country). If the student is found eligible, prima facie letter will be sent to the student for carrying out further necessary formalities. Following documents are required to be submitted:

1. Four photocopies of qualifying examination mark sheets /XIIth.

2. Three Photographs.

3. Two photocopies of Student Visa.

4. Two photocopies of Passport.

5. Original AIDS Test Report.

6. Certificate of proficiency in English.

7. Equivalence Certificate.

8. Resident Permit and 'C' Form.

Once the student's admission is confirmed, he/she is required to attend the Counselling session organized by the faculty of the department, the date of which will be intimated to students by the college authorities.

STUDENT RESOURCES

1. LIBRARY:

The College has an impressive library building with a built-up area of 1200 sq.mtrs. The library has worldwide links, giving end users easy access to scholarly material that is relevant and regularly updated.

Contact Person: Mrs. Poonam Joshi   Email: pmj001@chowgules.ac.in

2. LABORATORIES:

Department Labs: Physics, Botany, Biotechnology , Biochemistry, Computer Science, Zoology, Chemistry, Geography, Geology & Psychology departments are equipped with modern laboratories that have provision for research facilities.

Computer Labs: The college has well equipped Computer Labs for the use of staff and students. The college has its own server for these computers, ensuring continuous and reliable access and networking.

Research Laboratory: The college houses a centralized research laboratory equipped with modern equipments.

3. STUDENT SUPPORT SERVICES DEPARTMENT

This college extends support to students with regards to various activities required for a well-developed academic life. Student Support Services department ensures that students receive friendly and easily accessible guidance and support.

The Student Support Services provides a host of specialized services to students, which are aimed at developing well-round personality of the students, offering them counseling on academic and non-academic concerns.

a. International Student and Teachers Exchange Programmes

The College has an ongoing international student-teacher exchange programme with institutions of higher learning in Sweden, Japan and Portugal. Under these exchange

programmes, students from the College visit these institutes to learn about the education, culture and experience the unique hospitality that the families of students there have to offer. Similarly, students from these institutes visit our college and undergo a similar programme in India.

Contact Person: Mrs. Sharmila Menezes   Email:international_exchange@chowgules.ac.in

b. Writing Centre

The Writing Centre at Parvatibai Chowgule College was founded with the help of International experts to teach, develop and improve the writing skills of the students. The writing centre aims to develop the academic writing skills of the students and provides assistance and help with other forms of writing required by students and faculty in the general academic atmosphere.

Contact Person: Ms. Chelsea Fernandes   Email: cmf000@chowgules.ac.in

c. Career and Personal Counselling Centre

In order to help students to make a well-researched choice of careers, the Career and Personal Counseling Centre offers a range of counseling solutions such as Vocational Guidance (aptitude testing) andCareer Counseling. Personal counseling with a personal counselor is also available to tide over personal issues and concerns. The centre aims at developing a career plan for students by helping them to connect with their field of study to different occupational alternatives, create a post-graduate educational plan and explore job-opportunities.

Contact Person: 1) Mrs. Sharmila Menezes   Email: counseling@chowgules.ac.in
                2) Mrs. Pooja Prabhudessai

d. School of Foreign Languages

School of Foreign Languages at Parvatibai Chowgule College of Arts and Science promotes foreign language learning and culture. Experts and native speakers conduct the following foreign language course for the students and public at the College.

-   Portuguese language courses for basic, elementary and intermediate levels are conducted and certificates are issued by Instituto Camoes, Portugal.

4. THE TIGER STUDIO

The College is the first educational institution in Goa to have a full-fledged studio for pre & post production of videos for film and television. The studio is well equipped with HD Cameras, Crane, Professional Indoor & Outdoor Lights, MAC and Windows workstations as well as professionally sound proofed areas.

Tiger Studio runs a number of short term and advanced courses in Video-Editing, Animation, Sound-Editing, Photography, Videography, Special Effects and many more.

Contact Person: Mr. Shubhajit Datta   Email:sud005@chowgules.ac.in

5. PHYSICAL FITNESS CENTRE AND REHABILITATION & SPORTS MEDICINE CENTRE

Spread over 35000 Square feet, the Centre is equipped with a sports and recreational fitness facility, featuring cardio equipment, selector machines, Iso-kinetic machines, free weights, indoor running track, plyometrics platforms, dot drill mats and Olympic platforms. These are useful to a wide range of users ranging from elite athletes to recreational gym goers.

The sports medicine centre is designed to cater to all sports persons and others who are suffering from all musculoskeletal ailments. It is equipped with x-ray unit to conduct thorough diagnostics of the athletes as well as other individuals who are seeking pain relieving modalities. The centre also has a hydro therapy pool to treat athletes and others who are suffering from injuries to lower extremities.

Contact Person: Sanjaya Kumar Swain   Email: sks003@chowgules.ac.in

6. STUDENT CLUBS

The bonafide students of college can earn six non-evaluative credits in extracurricular activities by joining a student governed club. The office of students' affair offers membership of various student governed clubs throughout the academic year.

Contact Person: Dr. Devashish Bagchi   Email: dvb001@chowgules.ac.in

6. CENTRE FOR TEACHING AND LEARNING

The Centre for Teaching and Learning was inaugurated in November 2017 and is the first in the State of Goa and one of the few Centres in the country.

This Centre aims to educate faculty on how to go about integrating ICT in Higher Education effectively by conducting workshops, seminars and provide them with hands-on experience/training, innovation, implementation and sharing of different ICT tools in teaching like Simulation, Gamification, LMS, Mobile Applications, etc. and develop E-content for the various courses offered by the college and other educational institutions, conduct research related to use of ICT, Learning Analytics, Mobiles, LMS, etc. and provide Assessment/Evaluation strategies to track student progression until graduation.

Contact Person: Dr. (Ms). SameenaFernandes e Falleiro   Email: ctl@chowgules.ac.in

HOSTEL

Accommodation with basic facilities is available for boys and girls. For more details, please contact Mr. Sanjaya Kumar Swain on 9373139610or email at sks003@chowgules.ac.in

V
CODE OF CONDUCT

Students are required to take note of the following and to adhere to the requirements:

Classroom Attendance:

The College runs full time programmes and requires the students to attend classroom sessions. Minimum attendance for eligibility to appear for Examinations as per Goa University ordinance OA-17

- A student registered in a Semester / Term / Year, for any Programme (Degree or Diploma), shall ordinarily be required to have a minimum cumulative attendance of 75% of the total lectures and practicals engaged during that Semester / Term / Year and a minimum of 50% attendance of the total lectures and practicals engaged in any individual paper / course.

- A student, not fulfilling the minimum attendance requirements mentioned above, shall not be eligible to appear for that Semester / Term / Annual Examination. Such student shall have to seek re-admission to the Course/Programme during the subsequent Academic Year /Term / Semester by paying the requisite fees.

- For a student registered for subject / subjects having practical component, attendance for both theory and practical component shall be treated separately for the requisite attendance mentioned above.

Wearing of Identity Cards:

While on the College Campus the student must compulsorily wear their Identity Cards and must produce the same when any staff member of the College asks for identification. Library cards are not substitutes for official Identity Cards.

Please note the following fines as applicable:

- If a student is found to be not wearing ID card – Rs 500/-
- If students have swapped cards – Rs. 1000/- per defaulter
- Crossing over Library flowerbeds or Behind animal house –Rs. 500/-
- Damage to College property – Estimated cost of damage payable at full cost
- If a card is lost, a new one can be procured at a cost of Rs. 350/- The cost of lanyard is an additional Rs 20/-

Campus Discipline and Conducive Environment

The College is making concerted efforts to provide relevant education of global standards in a disciplined and conducive environment. The following regulations are some building blocks of this environment and all students are required to take note of them.

Computers Usage Rules

College encourages students to use laptops and to bring their personal laptops to the class. Students may also use computers available in the Computer Lab I. Users must be fully aware of the usage rules and the IT protocol of the College. Disciplinary action will be taken against violators.

Vehicle Parking Rules

The College is not responsible for the safety of vehicles parked at the vehicle parking area of the college. Persons must vacate the parking space after parking the vehicles. The college is also NOT responsible if the vehicle is towed away if parked in 'No Parking Area'. Misusing the parking ground is an offence and would invite fine of Rs. 5000/- and disciplinary action.

Stand against Ragging

The college recognizes the criminality of ragging and strictly prohibits it within the institution. Whoever directly or indirectly commits, participates in, abets or instigates it shall be suspended/expelled/rusticated and shall be liable to pay a fine. Ragging includes display of noise, disorderly conduct, teasing, rough or rude treatment, indulging in rowdy, undisciplined and obscene activities which cause or are likely to cause annoyance, undue hardship, physical or psychological harm or mental trauma or raise apprehension or fear on a fresher, other students or other persons, or forcing students to do any act which such a student or person is not willing to do or which cause him/her harm, shame, embarrassment or danger to his/her life or limb or indulging in eve teasing or sexual harassment or instigating others to do so.

The college will abide by "UGC Regulations on curbing the menace of Ragging in Higher Educational Institutions, 2009"

Incase of any grievance related to sexual harassment on the campus students can directly write a letter addressed to Presiding Officer, Internal Complaint Committee, Chowgule College. For

further details refer to college policy on prevention, prohibition and redressal of sexual harassment at workplace.

Students can also send an email to icc@chowgules.ac.in .

Important Note

The Principal may amend the admission rules at his/her discretion. The Principal's decision in all matters related to admission shall be final.

Fatorda, Gogol, Margao, Goa-403602
Phone: 0832-2722222, Fax: 0832-2759067

www.chowgules.ac.in   principal@chowgules.ac.in

Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award

PROSPECTUS
Bachelor of Science (B.Sc.)
2022-2023

I
ABOUT THE COLLEGE

INTRODUCTION

Parvatibai Chowgule College of Arts and Science is a premier educational institution in the State of Goa, offering courses at the Graduate and Postgraduate levels as well as Ph.D. programmes. Parvatibai Chowgule College is accredited by NAAC with Grade 'A+' (CGPA of 3.27 on a 4-point scale in the 4th cycle). The college was adjudged by Goa University as the "Best Affiliated College", at the time of its Silver Jubilee celebrations in the year 2009. It was also conferred with the "Best Educational Institute" award by Business Goa in 2014.

Having been conferred with the autonomous status by University Grants Commission in June2014, this college became the first autonomous college in the State of Goa. In the National Institutional Ranking Framework conducted by the Ministry of Human Resource Development (MHRD), Govt. of India for colleges across the country, our college was ranked in the Rank Band of 101-150 in the year 2018, followed subsequently by being in the Rank Band of 151-200 in the years 2019 and 2021. In 2017, the college was awarded 'DBT Star College Scheme' by Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India, being the first college in Goa to receive grants under this prestigious scheme. Our college is honoured with the 'Best Internship Partner' award by Goa Rugby Union at the Goa Rugby Awards 2018.Our College is categorized as 'Band A' institution(Rank between 06-25) in category of "Institutes and Colleges (Govt. and Govt. Aided)" in Atal Ranking of Institutions on Innovation Achievement(ARIIA) 2020 announced by MHRD, Government of India, in 2020.
Our College has also been rated at '4.5 Star' for undertaking various activities prescribed by Innovation Cell, Ministry of Education, Government of India to promote innovation and start-ups in campus during the IIC Calendar Year, 2019-20 and accordingly selected as a Mentor Institute under the Mentor-Mentee Program 2021-22 of IIC, MIC. Our college is the only college selected as Mentor Institute in the entire state of Goa.

Since its inception, the College has always been at the forefront in educational innovation. Presently the college offers undergraduate, postgraduate, postgraduate diploma, certificate courses and Ph.D. programmes in the Arts, Science and the Vocational streams.Today, the

College offers twenty-three undergraduate and seven post-graduate programmes, some of these courses are unique in Goa.

The various programmes offered at the undergraduate level in the Arts Stream are: *English, French, Hindi, Konkani, Marathi, Mathematics, Economics, Geography, History, Philosophy, Psychology, and Sociology.* Programmes in the Science Stream are: *Biochemistry, Biotechnology, Botany, Chemistry, Computer Science, Geography, Geology, Mathematics, Physics, and Zoology,* and the Programme in Vocational stream is B.Voc. in *Software Development.*

The various Post Graduate degree programmes offered are *M.Sc. in Information Technology, M.Sc. in Analytical Chemistry, M.Sc. in Geoinformatics, M.A. in Geography, M.A. in Child Psychology and Child Development, M.A. in Hindi and M.A. in English.*

The various Post Graduate diploma programmes offered are *Post Graduate Diploma in Computer Applications (PGDCA), Post Graduate Diploma in Geoinformatics and Post Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques.*

The College has state-of-the-art infrastructure. Science laboratories with facilities for research, multimedia-equipped auditoriums, classrooms, conference room, campus-wide Wi-Fi network, computer labs, web-based virtual infrastructure for teaching-learning (LMS-CLAAP/Google Classrooms, C-mail, Online Library), computerized library, well equipped faculty offices, FIFA accredited football ground with field turf, multipurpose ground, gymnasium and fitness centre, sports medicine and physiotherapy centre, open-air seating arrangements, cafeteria, well maintained rest-rooms, spacious well-laid four-wheeler and two-wheeler parking grounds andoffices for accounts and administration.

This institution also renders various support services that seek to provide motivation for students to excel. These support services include the Office of Information Technology, Estate Office and Student Support Services.

Two prominent student guidance facilities are available at the College: Staff Advisory Programme (mentoring) and Student Support Services. Mentoring of students is an integral part

of our educational system, providing guidance and encouragement. Mentors play a key role in this college as they nurture students and help them remain connected and engaged, thus strengthening student's performance. Student Support Services of our College has various arms such as Writing Centre, Career & Personal Counselling Centre (CPCC) and Centre for Portuguese Language & Culture (CPLC).

Our college is first in the State of Goa to establish a Centre for Teaching and Learning (CTL)in the year 2017. This Centre aims to educate faculty and students on effective integration of ICT in regular teaching- learning and provide them with hands-on experience/training.

The college has Memorandum of Understanding and collaborations with many foreign and Indian educational institutes. Under this, regular faculty and student exchange programmes are regularly initiated wherein the students can pursue their programme at a foreign University for a semester or for an academic year and can avail transfer of credits.

The College has remained committed to its mission of being an agent of change, assisting not only its stakeholders but also, through them, the community and the nation at large. The institution seeks to actively create well rounded students with positive valueswho go to become contributors to society.

PROGRAMMES OFFERED BY THE COLLEGE

UNDERGRADUATE PROGRAMMES
  (a) Bachelor of Arts (B.A.)
         The various programmes offered at undergraduate level in the Arts Stream are:
         English, French, Hindi, Konkani, Marathi, Economics, Geography, History, Mathematics, Philosophy, Psychology, and Sociology.

  (b) Bachelor of Science (B.Sc.)

         Programmes in the Science Stream are: *Biochemistry, Biotechnology, Botany, Chemistry, Computer Science, Geography, Geology, Mathematics, Physics and Zoology.*

  (c) Bachelor of Vocational (B.Voc)

      Programme in B.Voc. Stream is *Software Development*

POSTGRADUATE DEGREE PROGRAMMES

    (a) Masters of Science - Information Technology

    (b) Masters of Science - Analytical Chemistry

    (c) Masters of Science - Geoinformatics

    (d) Masters of Arts – Geography

    (e) Masters of Arts – Hindi

    (f) Masters of Arts - Child Psychology and Child   Development

    (g) Masters of Arts - English

POSTGRADUATE DIPLOMA PROGRAMMES

    (a) Post Graduate Diploma in Computer Application (P.G.D.C.A)

    (b) Post Graduate Diploma in Geoinformatics (P.G.D.G.I.S.)

    (c) Post Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques (P.G.D.C.G.M.L.T.)

Ph.D. PROGRAMMES

Geography

PROGRAMMES IN BACHELOR OF SCIENCE (B.Sc.)

The following B.Sc.programmesare offered:

- Botany
- Chemistry
- Computer Science
- Geography#
- Geology
- Mathematics
- Physics
- Zoology

#Third Year under Self-financed Programme

Degree to be awarded:

Though autonomous status is conferred by UGC, the College continues to be affiliated to Goa University and degrees will be awarded by Goa University indicating the name of the College.

Duration of course:

The afore-mentioned Undergraduate Degree Courses shall each have duration of three academic years. Every academic year shall consist of two semesters.

Eligibility for admission:

The College shall adopt the ordinance **OC-45.2** of Goa University with certain amendments.

Eligibility for admission to Undergraduate Programme

Eligibility for admission to the undergraduate programme leading to the degrees of Bachelor of Scienceshall be as follows.

Eligibility for admission to Semester - I and Semester - II (in the first year) B.Sc. course

A. To be eligible for admission to the Semester-I of the Three Year course leading to the degree of Bachelor of Science, the candidate should have passed (i) the Higher Secondary School Certificate (Std. XII) examination conducted by the Goa Board of Secondary and Higher Secondary Education in the Science stream, OR (ii) the Higher Secondary School Certificate (Std. XII) examination conducted by the Goa Board of Secondary and Higher Secondary Education in the Vocational stream in the subjects notified by the University under this clause from time to time, OR (iii) Std XII (Science) or similar examination of any another body, equivalent to Goa Board of Secondary and Higher Secondary Education, Goa, and recognized as such by Goa University.

B. A candidate satisfying the conditions laid down by the University for admission to the Semester-I course in B. Sc. shall also be eligible for admission to the Semester-I of B. A. course.

C. A candidate not covered under any of the above categories but desirous of seeking admission to the said course may apply to the college. However, the Principal along with the Dean of concerned Faculty and the Chairperson(s) of Board(s) of Studies of concerned subjects shall decide the eligibility.

D. A candidate admitted for Semester-I shall be deemed eligible for admission to Semester-II.

Maximum Duration of the programme

Duration for the completion of programme will be as per Goa University Ordinance OA-16.11
The total duration available for students to complete the programme shall be twice the actual duration prescribed for the programme effective from 4th June 2018.

Class strength:

Maximum number of students in a class/division shall not exceed sixty and eighty in Arts and Science faculty respectively.

The B.Sc. programme is structured into following four components (Ref:AO 3.1.2)

- **Component A:**

  Under this component as per the choice of subject/s students can choose any one of the following options:

  Option I: Single Major: A student shall choose any one subject from those stated above, as Major.

  Option II: Major–Minor: A student shall choose any two subjects from those stated above, one subject as Major and the other as Minor.

  A student has to complete 92 credits under component A

- **Component B: A student has to complete 28 Credits under this component.**

- **Component C:** A student has to complete 6 Credits under this component. The activities are: NCC or NSS, Performing Art or Music and Sports. These activities are mandatory for students.

- **Component D:** This consists of internship of 4 credits. The duration of internship is a minimum of four weeks. Students can choose to do their internship during any of the first four semester breaks of their studentship.

Course Structure of B.A. and B.Sc. Programmes

STRUCTURE		CREDITS	SUBJECT SPECIFIC COURSES	Major (Core) + Project	Minor	Elective (Major/ Generic)
Component A (92 Credits)	CHOICE 1 : Single Major	32+4	8 Core Courses (Major) + Project Paper	8 + 1		
		48	12 Elective Courses (Major)			12
		8	2 Generic Elective Courses			2
	CHOICE 2 : Major – Minor	32+4	8 Core courses (Major) + Project Paper	8 + 1		
		24	6 Elective Courses (Major)			6
		24	6 Core Courses (Minor)		6	
		8	2 Generic Elective Courses			2
	CHOICE 3 : Double Major	32+4	8 Core Courses (Major-1) + Project Paper	8 + 1		
		32	8 Core Courses (Major-2)	8		
		16	2 Elective Courses (Major-1) + 2 Elective Courses(Major-2)			4
		8	2 Generic Elective Courses			2
STRUCTURE		CREDITS	FOUNDATION COURSES	Compulsory		Elective
Component B (28 Credits)	Foundation Courses	4	Language	1		
		4	Academic Writing (AW)	1		
		4	Research Writing (RW)	1		
		4	*Statistical Methods/ (SM) **Elements of Basic Statistics	1		
		4	Environmental Studies (EVS)	1		
		8=(4+4 or 4+2+2 or 2+2+2+2)	Skill Enhancement Courses (SEC) of 2 or 4 credits (Internal Option Offered)			2 to 4
Component C (6 Credits)	Extra-curricular	6 Or 3+3 Or 2+4 Or 2+2+2	Music / Dance Programme	One Or A Combination of Programmes		
			Sports Programme			
			NCC Programme			
			NSS Programme			
			Life-skills Programmes			
			Student Exchange Programme			
			Outreach Programme			
			Fine Art			

Component D	tInternship	4	Internship (Minimum One Month / 120 Contact Hours)	1	
* Statistical Methods (For Economics, Geography, Psychology, Botany, Biotechnology, Biochemistry, Chemistry, Computer Science, Geology, Mathematics, Physics and Zoology) ** Elements of Basic Statistics (For English, French, Hindi, Konkani, Marathi, History, Philosophy and Sociology)					

Course Structure Subject to Change upon approval

II
BOTANY

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**BOT-I.C-1** Plant diversity	**BOT-I.C-2** Cell Biology & Biomolecules	--------	--------	--------	--------
II	**BOT-II.C-3** Plant Anatomy and Embryology	**BOT-II.C-4** Microbiology	--------	--------	--------	--------
III	**BOT-III.C-5** Physiology of Plants		**BOT-III.E-1** Ecology & Conservation	**BOT-III.E-2** Systematics of flowering plants and phylogeny	**BOT-III.E-3** Enzymes and their metabolic pathways	**BOT-III.E-4** Herbal Cosmetology
IV	**BOT-IV.C-6** Cytogenetics		**BOT-IV.E-5** Plant Breeding and Biostatistics	**BOT-IV.E-6** Techniques and Instrumentation in Botany	**BOT-IV.E-7** Plant pathology	**BOT-IV.E-8** Algal Biotechnology
V	**BOT-V.C-7** Plant Molecular Biology		**BOT-V.E-9** Bioinformatics	**BOT-V.E-10** Seed Technology	**BOT-V.E-11** Plant drug Technology & Pharmacognosy	**BOT-V.E-12** Organic Farming
VI	**BOT-VI.C-8** Plant Genetic Engineering		**BOT-VI.E-13** Plant tissue culture	**BOT- VI.E-14** Horticulture, Floriculture & Landscaping	**BOT- VI.E-15** Economic Botany	**BOT- VI.E-16** Applied Mycology

SEC – Basics in Horticulture

CHEMISTRY

SEMESTER	CORE COURSES		ELECTIVE COURSES				
I	**CHE-I. C-1** General Physical and Inorganic Chemistry	**CHE-I. C-2** General Organic and Inorganic Chemistry	---	---	---	---	---
II	**CHE-II. C-3** Concepts in Physical and Analytical Chemistry	**CHE-II. C-4** Concepts in Organic and Inorganic Chemistry	---	---	---	---	---
III	**CHE-III. C-5** Comprehensive Chemistry –I (Physical and Inorganic Chemistry)	---	**CHE-III.E-1** Name Reactions and Synthetic Methodologies	**CHE-III. E-2** Introduction to Industrial Chemistry	**CHE- III.E-3** Surface Chemistry and Catalysis	**CHE- III.E-4** Bioinorganic Chemistry	**CHE.SEC-1** Skill Development in Chemistry
IV	**CHE-IV. C-6** Comprehensive Chemistry –II (Organic and Analytical Chemistry)	---	**CHE- IV.E-5** Pharmaceutical Chemistry	**CHE- IV.E-6** Polymer and Colloid Science	**CHE-IV. E-7** Spectroscopic Techniques	**CHE- IV.E-8** Chemistry of Natural Products	**CHE.SEC-2** Plating and Corrosion
							CHE.SEC-3 Laboratory Techniques in Organic Chemistry
V	**CHE-V. C-7** Advanced Chemistry – I (Physical and Inorganic Chemistry)	---	**CHE- V.E-9** Heterocyclic Chemistry	**CHE- V.E-10** Nanomaterials and Solid State Chemistry	**CHE- V.E-11** Organometallic Chemistry	---	---
VI	**CHE-VI. C-8** Advanced Chemistry-II: (Organic and Analytical Chemistry)	---	**CHE-VI. E-13** Spectroscopic Methods in Organic Chemistry	**CHE- VI.E-14** Environmental Chemistry	**CHE- VI.E-15** Selected Topics in Inorganic Chemistry	---	---

COMPUTER SCIENCE

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**COM-I.C-1** Mathematical foundation of Computer Science – I	**COM-I.C-2 *** Introduction to Programming	---	---	---	---
II	**COM-II.C-3A ** ** Database Management I	**COM-II.C-4 *** Data Structures				
III	**COM-III.C-5A *** Object Oriented Programming	---	**COM-E-1** Software Engineering	**COM-E-2** Digital Logic Design	**COM-E-3** Mathematical Foundation of Computer Science – II	**COM-E-4** Web Designing
IV	**COM-IV.C-6** Computer Architecture and Organization	---	**COM-E-5** Design & Analysis of Algorithms	**COM-E-10** Mobile Application Development	**COM-E-7** Server Side Programming	**COM-E-8** HCI
V	**COM-V.C-7 *** Operating Systems		**COM-E-9** Embedded Systems	**COM-E-17** Data Base Management System II	**COM-E-11** Introduction to Data Science	**COM-E-12** Software Testing
VI	**COM-VI.C-8 *** Computer Networks	---	**COM-E-13** Network Security	**COM-E-14** Cloud Computing	**COM-E-15** Multimedia Techniques	**COM-E-16** Digital Marketing

Note: * Core Compulsory Courses also offered for minor subject combination.

 ** Core Compulsory Courses also offered for minor subject combination in 4th Semester.

GEOGRAPHY

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**GEG-I.SC1:** Introduction to Geography	**GEG-I.SC2:** Fundamentals of Physical Geography				
II	**GEG-II.SC3:** Basics of Human Geography	**GEG-II. SC4:** Basics of Regional Geography				
III	**GEG-III. SC5:** Fundamentals of Remote Sensing and GIS		**GEG-SE1:** Spatial Analysis	**GEG-SE2:** Raster and Vector Data Models in GIS	**GEG-SE3:** Participatory GIS	**GEG-SE4:** Applied GIS
IV	**GEG-IV. SC6:** Fundamentals of Geomorphology		**GEG-SE5:** Coastal Geomorphology	**GEG-SE6:** Fluvial Geomorphology	**GEG-SE7:** Watershed Management	**GEG-SE8:** Biogeography
V	**GEG-V. SC7:** Introduction to Climatology		**GEG-SE9:** Geography of Soil Studies	**GEG-SE10:** Agro-Meteorology: Principles and Applications	**GEG-SE-11:** Field Survey in Physical Geography	**GEG-SE12:** Quantitative Techniques in Geography
VI	**GEG-VI. SC8:** Ecology and Terrestrial Environment		**GEG-SE13:** Remote Sensing and Forest Ecology	**GEG-SE14:** Advanced Coastal Geomorphology	**GEG-SE15:** Ecology of Estuarine Environment	**GEG-SE16:** Disaster Management: Urban and Coastal

GEOLOGY

SEM	CORE COURSES		ELECTIVE COURSES				SEC
I	**GEL-I.C-1** Fundamentals of Mineralogy	**GEL-I.C-2A** Earth's Dynamics and Tectonics	-----	-----	-----	-----	
II	**GEL-II.C-3A** Elementary Petrology	**GEL-II.C-4** Principles of Stratigraphy and Paleontology	-----	-----	-----	-----	
III	**GEL-III.C-5A** Advanced Mineralogy and Geochemistry		**GEL-III.E-1** Physical Geology	**GEL-III.E-2** Groundwater and Hydrogeology	**GEL-III.E-3A** Ore Genesis	**GEL-III.E-4** Marine Geology	**GEL-III.SEC-1A** Drill Hole Data Management **GEL-III.SEC-1B** Gemmology
IV	**GEL-IV.C-6** Structural Geology		**GEL-IV.E-5A** Engineering Geology	**GEL-IV.E-6A** Optical Mineralogy	**GEL-IV.E-7** Natural Hazards and Management	**GEL-IV.E-8** Geotectonics	**GEL-IV.SEC-2** GIS for Beginners
V	**GEL-V.C-7** Sedimentary Petrology	**GEL-V.CP** Core Project	**GEL-V.E-9B** Precambrian Stratigraphy of India	**GEL-V.E-10** Petroleum Geology	**GEL-V.E-11A** Metamorphic Petrology	**GEL-V.E-12** Remote Sensing and Digital Image Processing	
VI	**GEL-VI.C-8A** Igneous Petrology	**GEL-VI.CP** Core Project	**GEL-VI.E-13B** Phanerozoic Stratigraphy of India	**GEL-VI.E-14A** Rock Structures and Deformation Microstructures	**GELVI.E-15A** Surveying, Mapping and Field Geology	**GEL-VI.E-16A** Principles of Geophysical Exploration and Mining	

Core Courses for students offering **Geology as the Minor**

SEMESTER	CORE (MINOR)
I	GEL-I.C-1: Fundamentals of Mineralogy
II	GEL-II.C-3A: Elementary Petrology
III	GEL-III.C-5A: Advanced Mineralogy and Geochemistry
IV	GEL-IV.C-6: Structural Geology
V	GEL-V.C-7A: Sedimentary Petrology
VI	GEL-VI.C-8A: Igneous Petrology

MATHEMATICS

Course Structure for Mathematics Major

SEMESTER	CORE COURSES		Elective-I	Elective-II	Elective-III	Elective-IV	Elective-V
I	Basic Algebra	Basic Real Analysis	---------	---------	---------	---------	---------
II	Coordinate Geometry	Mathematical Analysis-I	---------	---------	---------	---------	---------
III		Mathematical Analysis - II	Abstract Algebra-I	Number theory-I	Combinatorics	Numerical Methods	
IV		Linear Algebra	Advanced Analysis	Number Theory-II	Operations Research I	Probability Theory	
V		Functions of Several Variables	Metric Spaces	Cryptography	Graph Theory	Logic and Boolean Algebra	Operations Research II
VI		Vector Analysis	Complex Analysis	Abstract Algebra - II	Computational Linear Algebra	Computers for Mathematics	Pedagogy of Mathematics

Semester	Skill Enhancement Course
Sem III	Differential Equations-I
Sem IV	Differential Equations-II

Course Structure for Mathematics Minor

SEMESTER	CORE (MINOR)
I	Basic Algebra
II	Coordinate Geometry
III	Basic Real Analysis/ Numerical Methods
IV	Mathematical Analysis-I/ Linear Algebra/ Operations Research-I
V	Graph Theory / Numerical Methods/ Operations Research-II
VI	Probability Theory/ Vector Analysis

PHYSICS

SEMESTER	CORE COURSES		ELECTIVE COURSES					SEC
I	**PHY-I.C-1** Introduction to Mathematical Physics	**PHY-I.C-2** Mechanics-I	-------	-------	-------	-------	-------	
II	**PHY-II.C-3** Heat and Thermodynamics	**PHY-II.C-4** Electricity and Magnetism	-------	-------	-------	-------	-------	
III	**PHY-III.C-5** Electromagnetic Theory-I	-------	**PHY-E-1** *Optics	**PHY-E-2** Modern Physics	**PHY-E-3** Oscillations, Waves and Sound	**PHY-E-17** Introduction to Astronomy and Astrophysics	**PHY-E-8** Instrumentation	**PHY-SEC-1** Basics of Visualization and Scientific word processing
IV	**PHY-IV.C-6** Quantum Mechanics	-------	**PHY-E-5** *Electronics-I	**PHY-E-18** Introduction to Error Analysis	**PHY-E-4** Properties of Matter and Acoustics	**PHY-E-7** Computational Physics	-------	**PHY-SEC-2** Instrumentation
V	**PHY-V.C-7** Electromagnetic Theory-II	-------	**PHY-E-9** *Solid State Physics	**PHY-E-10** Thermodynamics and Statistical Mechanics	**PHY-E-11** Electronics-II	**PHY-E-12** Mathematical Physics	**PHY-E-6** Solid State Devices	
VI	**PHY-VI.C-8** Atomic and Molecular Physics	-------	**PHY-E-13** *Mechanics II	**PHY-E-14** Nuclear and Elementary Particle Physics	**PHY-E-15** Introduction to Special Theory of Relativity	**PHY-E-16** Introduction to Material Science		

Note:

* BoS Physics recommends these elective courses to be taken by students as a prerequisite to the M.Sc. (Physics) Program.

I.   COURSES FOR STUDENTS OPTING PHYSICS AS MINOR SUBJECT [2022-2023]

Semester	Course
I	Mechanics-I
II	Electricity and Magnetism or Heat and Thermodynamics
III	Modern Physics or Electromagnetic theory -I
IV	Computational Physics Or Quantum Mechanics
V	Thermodynamics and Statistical Mechanics Or Electromagnetic theory -II
VI	Mechanics II Or Introduction to Materials Science

II.   COURSES OFFERED AS GENERIC ELECTIVE COURSES (GEC) [2020-2021]

Semester	Course Title	Course code when offered as Generic Elective Course
I	Mechanics I	PHY-1.GEC-1
II	Heat and Thermodynamics	PHY-1.GEC-2
III	Modern Physics	PHY-1.GEC-3
III	Introduction to Astronomy and Astrophysics	PHY-1.GEC-4
III	Oscillations, Waves and Sound	PHY-1.GEC-5
IV	Quantum Mechanics	PHY-1.GEC-6
IV	Properties of Matter and Acoustics	PHY-1.GEC-7
VI	Mechanics II	PHY-1.GEC-8

ZOOLOGY

SEMESTER	CORE COURSES		ELECTIVE COURSES			
I	**ZOO-I.C-1** Animal Diversity: Non Chordates	**ZOO-I.C-2** Cell and Molecular Biology	---	---	---	---
II	**ZOO-II.C-3** Diversity and Biological Systems of Chordates	**ZOO-II.C-4** Fundamentals of Animal and Human Genetics				
III	**ZOO-III.C-5** Human Physiology	---	**ZOO-III.E-1** Vertebrate Endocrinology	**ZOO-III. E-2** Basic Microbiology and Fundamentals of Animal Biotechnology	**ZOO-III.E-3** Environmental Toxicology	**ZOO-III.E-4** Parasitology ****ZOO-III-SE-1** Waste Management Techniques
IV	**ZOO-IV.C-6** Biochemistry and Metabolic Regulation	---	**ZOO-IV.E-5** Animal Cell Culture and Applications	**ZOO-IV.E-6** Aquaculture and Fisheries	**ZOO-IV.E-7** Immunology	**ZOO-IV.E-8** Evolutionary Biology
V	**ZOO-V.C-7** Developmental Biology		**ZOO-V.E-9** Molecular Genetics and Forensic Science	**ZOO-V.E-10** Economic Zoology	**ZOO-VI. E-11** Basic and Applied Entomology	**ZOO-V.E-12** Fish Preservation and Processing
VI	**ZOO-VI.C-8** Wildlife Biology	---	**ZOO-VI.E-13** Health and Nutrition *** ZOO-VI.GE-1** Health and Nutrition	**ZOO-V. E-14** Ecology and Ethology	**ZOO-VI.E-15** Laboratory Techniques in Pathology	**ZOO-VI.E-16** Bio Entrepreneurship **** ZOO-III.SE-2** Bio-Entrepreneurship

** Skill Enhancement Courses (SEC)

III
C. CREDITS FOR EXTRA CURRICULAR COMPONENT

The following categories of extra-curricular activities are available to students under the undergraduate curriculum of Parvatibai Chowgule College of Arts and Science (Autonomous) These are:

1. Music, Dance Programme
2. Sports Programme
3. NCC Programme
4. NSS Programme
5. Life-skills Programmes
6. Exchange Programme
7. Outreach Programme (initiated by Academic Departments of the College)
8. Fine Art

ADMISSION

How to apply:

To apply for admission, please visit our college website www.chowgules.ac.inand for further details and queries contact:

Email Id :admission@chowgules.ac.in

Phone No. (0832) 2722222 during working hours (9.00 a.m. to 1.00 p.m. and 2.00 p.m. to 4.30 p.m.)

Documents required:

Students are required to bring two photocopies (self attested) of each of the following documents along with the originals at the time of admission.

a. For Goa Board students:

1. Original + Two photocopies of qualifying examination mark sheet (XIIth).

2. Original + Two photocopies of Leaving Certificate.

3. Three passport size photographs.

4. Original + One photocopy of Aadhar Card.

5. Photocopy of Birth Certificate.

6. Caste Certificate approved by Government of Goa (if applicable).

7. EWS Certificate approved by Government of Goa (if applicable).

b. For other Board/Universities students:

1. Two photocopies of qualifying examination mark sheets (XIIth).

2. Original as well as two photocopies of Transfer/Leaving certificate.

3. Original as well as two photocopies of Migration certificate.

4. Provisional Eligibility Certificate from Chowgule college.

5. Three recent photographs.

6. Original + One photocopy of Aadhar Card.

7. Photocopy of Birth Certificate.

8. Caste Certificate approved by Government of Goa (if applicable).

9. EWS Certificate approved by Government of Goa (if applicable).

c. For International students:

International students applying directly for admission need to submit an application to the Principal stating their desire to seek admission along with their Passing Certificate, Transcript of records, copy of syllabus containing details of course of studies pursued in various courses in the examination passed by the applicant (duly countersigned by High Commissioner of India in the country). If the student is found eligible, prima facie letter will be sent to the student for carrying out further necessary formalities. Following documents are required to be submitted:

1. Four photocopies of qualifying examination mark sheets /XIIth.

2. Three Photographs.

3. Two photocopies of Student Visa.

4. Two photocopies of Passport.

5. Original AIDS Test Report.

6. Certificate of proficiency in English.

7. Equivalence Certificate.

8. Resident Permit and 'C' Form.

Once the student's admission is confirmed, he/she is required to attend the Counselling session organized by the faculty of the department, the date of which will be intimated to students by the college authorities.

STUDENT RESOURCES

1. LIBRARY:

The College has an impressive library building with a built-up area of 1200 sq.mtrs. The library has worldwide links, giving end users easy access to scholarly material that is relevant and regularly updated.

Contact Person: Mrs. Poonam Joshi   Email: pmj001@chowgules.ac.in

2. LABORATORIES:

Department Labs: Physics, Botany, Biotechnology , Biochemistry, Computer Science, Zoology, Chemistry, Geography, Geology & Psychology departments are equipped with modern laboratories that have provision for research facilities.

Computer Labs: The college has well equipped Computer Labs for the use of staff and students. The college has its own server for these computers, ensuring continuous and reliable access and networking.

Research Laboratory: The college houses a centralized research laboratory equipped with modern equipments.

3. STUDENT SUPPORT SERVICES DEPARTMENT

This college extends support to students with regards to various activities required for a well-developed academic life. Student Support Services department ensures that students receive friendly and easily accessible guidance and support.

The Student Support Services provides a host of specialized services to students, which are aimed at developing well-round personality of the students, offering them counseling on academic and non-academic concerns.

a. International Student and Teachers Exchange Programmes

The College has an ongoing international student-teacher exchange programme with institutions of higher learning in Sweden, Japan and Portugal. Under these exchange programmes, students from the College visit these institutes to learn about the education,

culture and experience the unique hospitalitythat the families of students there have to offer. Similarly, students from these institutes visit our college and undergo a similar programme in India.

Contact Person: Mrs. Sharmila Menezes   Email: international_exchange@chowgules.ac.in

b. Writing Centre

The Writing Centre at Parvatibai Chowgule College was founded with the help of International experts to teach, develop and improve the writing skills of the students. The writing centre aims to develop the academic writing skills of the students and provides assistance and help with other forms of writing required by students and faculty in the general academic atmosphere.

Contact Person: Ms. Chelsea Fernandes   Email: cmf000@chowgules.ac.in

c. Career and Personal Counselling Centre

In order to help students to make a well-researched choice of careers, the Career and Personal Counseling Centre offers a range of counseling solutions such as Vocational Guidance (aptitude testing) and Career Counseling. Personal counseling with a personal counselor is also available to tide over personal issues and concerns. The centre aims at developing a career plan for students by helping them to connect with their field of study to different occupational alternatives, create a post-graduate educational plan and explore job-opportunities.

Contact Person: 1) Mrs. Sharmila Menezes   Email: counseling@chowgules.ac.in
                2) Mrs. Pooja Prabhudessai

d. School of Foreign Languages

School of Foreign Languages at ParvatibaiChowgule College of Arts and Science promotes foreign language learning and culture. Experts and native speakers conduct the following foreign language course for the students and public at the College.

- Portuguese language courses for basic, elementary and intermediate levels are conducted and certificates are issued by Instituto Camoes, Portugal.

4. THE TIGER STUDIO

The College is the first educational institution in Goa to have a full-fledged studio for pre & post production of videos for film and television. The studio is well equipped with HD Cameras, Crane, Professional Indoor & Outdoor Lights, MAC and Windows workstations as well as professionally sound proofed areas.

Tiger Studio runs a number of short term and advanced courses in Video-Editing, Animation, Sound-Editing, Photography, Videography, Special Effects and many more.

Contact Person: Mr. Shubhajit Datta   Email:sud005@chowgules.ac.in

5. PHYSICAL FITNESS CENTRE AND REHABILITATION & SPORTS MEDICINE CENTRE

Spread over 35000 Square feet, the Centre is equipped with a sports and recreational fitness facility, featuring cardio equipment, selector machines, Iso-kinetic machines, free weights, indoor running track, plyometrics platforms, dot drill mats and Olympic platforms. These are useful to a wide range of users ranging from elite athletes to recreational gym goers.

The sports medicine centre is designed to cater to all sports persons and others who are suffering from all musculoskeletal ailments. It is equipped with x-ray unit to conduct thorough diagnostics of the athletes as well as other individuals who are seeking pain relieving modalities. The centre also has ahydro therapy pool to treat athletes and others who are suffering from injuries to lower extremities.

Contact Person: Sanjaya Kumar Swain   Email: sks003@chowgules.ac.in

6. STUDENT CLUBS

The bonafide students of college can earn six non-evaluative credits in extracurricular activities by joining a student governed club. The office of students' affair offers membership of various student governed clubs throughout the academic year.

Contact Person: Dr. Devashish Bagchi   Email: dvb001@chowgules.ac.in

6. CENTRE FOR TEACHING AND LEARNING

The Centre for Teaching and Learning was inaugurated in November 2017 and is the first in the State of Goa and one of the few Centres in the country.

This Centre aims to educate faculty on how to go about integrating ICT in Higher Education effectively by conducting workshops, seminars and provide them with hands-on experience/training, innovation, implementation and sharing of different ICT tools in teaching like Simulation, Gamification, LMS, Mobile Applications, etc. and develop E-content for the various courses offered by the college and other educational institutions, conduct research related to use of ICT, Learning Analytics, Mobiles, LMS, etc. and provide Assessment/Evaluation strategies to track student progression until graduation.

Contact Person: Dr. (Ms). SameenaFernandes e Falleiro   Email: ctl@chowgules.ac.in

HOSTEL

Accommodation with basic facilities is available for boys and girls. For more details, please contact Mr. Sanjaya Kumar Swain on 9373139610or email at sks003@chowgules.ac.in

V
CODE OF CONDUCT

Students are required to take note of the following and to adhere to the requirements:

Classroom Attendance:

The College runs full time programmes and requires the students to attend classroom sessions. Minimum attendance for eligibility to appear for Examinations as per Goa University ordinance OA-17

- A student registered in a Semester / Term / Year, for any Programme (Degree or Diploma), shall ordinarily be required to have a minimum cumulative attendance of 75% of the total lectures and practicals engaged during that Semester / Term / Year and a minimum of 50% attendance of the total lectures and practicals engaged in any individual paper / course.

- A student, not fulfilling the minimum attendance requirements mentioned above, shall not be eligible to appear for that Semester / Term / Annual Examination. Such student shall have to seek re-admission to the Course/Programme during the subsequent Academic Year /Term / Semester by paying the requisite fees.

- For a student registered for subject / subjects having practical component, attendance for both theory and practical component shall be treated separately for the requisite attendance mentioned above.

Wearing of Identity Cards:

While on the College Campus the student must compulsorily wear their Identity Cards and must produce the same when any staff member of the College asks for identification. Library cards are not substitutes for official Identity Cards.

Please note the following fines as applicable:

- If a student is found to be not wearing ID card – Rs 500/-
- If students have swapped cards – Rs. 1000/- per defaulter
- Crossing over Library flowerbeds or Behind animal house –Rs. 500/-
- Damage to College property – Estimated cost of damage payable at full cost
- If a card is lost, a new one can be procured at a cost of Rs. 350/- The cost of lanyard is an additional Rs 20/-

Campus Discipline and Conducive Environment

The College is making concerted efforts to provide relevant education of global standards in a disciplined and conducive environment. The following regulations are some building blocks of this environment and all students are required to take note of them.

Computers Usage Rules

College encourages students to use laptops and to bring their personal laptops to the class. Students may also use computers available in the Computer Lab I. Users must be fully aware of the usage rules and the IT protocol of the College. Disciplinary action will be taken against violators.

Vehicle Parking Rules

The College is not responsible for the safety of vehicles parked at the vehicle parking area of the college. Persons must vacate the parking space after parking the vehicles. The college is also NOT responsible if the vehicle is towed away if parked in 'No Parking Area'. Misusing the parking ground is an offence and would invite fine of Rs. 5000/- and disciplinary action.

Stand against Ragging

The college recognizes the criminality of ragging and strictly prohibits it within the institution. Whoever directly or indirectly commits, participates in, abets or instigates it shall be suspended/expelled/rusticated and shall be liable to pay a fine. Ragging includes display of noise, disorderly conduct, teasing, rough or rude treatment, indulging in rowdy, undisciplined and obscene activities which cause or are likely to cause annoyance, undue hardship, physical or psychological harm or mental trauma or raise apprehension or fear on a fresher, other students or other persons, or forcing students to do any act which such a student or person is not willing to do or which cause him/her harm, shame, embarrassment or danger to his/her life or limb or indulging in eve teasing or sexual harassment or instigating others to do so.

The college will abide by "UGC Regulations on curbing the menace of Ragging in Higher Educational Institutions, 2009"

In case of any grievance related to sexual harassment on the campus students can directly write a letter addressed to Presiding Officer, Internal Complaint Committee, Chowgule College. For

further details refer to college policy on prevention, prohibition and redressal of sexual harassment at workplace.

Students can also send an email to icc@chowgules.ac.in .

Important Note

The Principal may amend the admission rules at his/her discretion. The Principal's decision in all matters related to admission shall be final.

Fatorda, Gogol, Margao, Goa-403602

Phone: 0832-2722222, Fax: 0832-2759067

www.chowgules.ac.in   principal@chowgules.ac.in

Parvatibai Chowgule College of Arts and Science
(Autonomous)

Accredited by NAAC with Grade 'A+'
Best Affiliated College-Goa University Silver Jubilee Year Award

PROSPECTUS
For P.G. Degree & Diploma Programmes
2022-2023

INDEX TABLE

Introduction

Parvatibai Chowgule College of Arts and Science, Margao-Goa, founded in 1962, is an Autonomous institution of higher education within the Goa University system since 2014. This premier educational institution has been accredited by the National Assessment and Accreditation Council (NAAC) at Grade A+ in 2022, the highest for any college in the State of Goa.

Since becoming autonomous the College introduced the Choice Based Credit System (CBCS) in all its undergraduate and postgraduate educational programmes. Besides the CBCS, the revision of the programmes was done by taking into account the employability issues. The College is presently involved in strengthening its outcome-based education and evolving it further so as to meet the needs of the present-day generation.

The College is directed by its mission and vision to seek higher distinctions and impart quality education with innovative curriculum, appropriate teaching-learning-evaluation methodologies, twenty-first century technologies and better infrastructure.

Under the choice-based credit system the College offers core courses and elective courses in each of its educational programmes both at the undergraduate and postgraduate levels. Its postgraduate programmes are governed by Autonomy Ordinances (AO), - AO-5 for master's degree programmes, and AO-9 for postgraduate diploma programmes.

The postgraduate degree programmes offered by the College on self-financed basis are:

1. Master of Arts in Child Psychology and Child Development

2. Master of Arts in Geography

3. Master of Arts in English

4. Master of Arts in Hindi

5. Master of Science in Analytical Chemistry

6. Master of Science in Geoinformatics

7. Master of Science in Information Technology

The postgraduate diploma programmes offered on self-financed basis are:

1. Postgraduate Diploma in Clinical Genetics and Medical Laboratory Techniques

2. Postgraduate Diploma in Geoinformatics

The following postgraduate diploma programme offered is Government aided:

3. Postgraduate Diploma in Computer Applications

The postgraduate degree programmes are two-years-four-semesters full time programmes carrying a minimum of 64 credits and the postgraduate diploma programmes are one-year-two-semesters full time programmes carrying a minimum of 40 credits. The courses are conducted using a range of teaching-learning-evaluation methodologies evolved conceptually and through the use of ICT processes. For instance the outcome-based-education followed by many teaching departments is a conceptually evolved methodology, whereas the flipped classroom has evolved as a result of the use of ICT and LRMS. The aim of excellence has been a driving force for innovative developments in learning programmes at the College.

A student's learning is evaluated in the courses through continuous assessments using various evaluation methodologies and through a comprehensive semester-end examination. The evaluation is done not only to determine a student's grasp of the subject-knowledge in the course but also to determine the extent of other skills acquired such as critical-thinking, analysing, out-of-the-box thinking, oral and written communication, referencing, etc. The performances of a student in the various courses are graded and a CGPA (Cumulative Grade-Point Average) is calculated so as to ascertain the student's overall performance in the programme.

This prospectus provides information, in a nutshell, on these above-listed programmes for the benefit of students who are deciding about taking admission to any of these programmes.

How to apply for admission:
To apply for admission, please visit our college website
http://www.chowgules.ac.in/
Complete the online admission form as per instructions provided therein.

For further details and queries:
Email: sfpadmission@chowgules.ac.in

Postgraduate Degree Programmes

2022 -2023

Master of Arts in Child Psychology and Child Development

(M.A. in Child Psychology and Child Development)

(Self-Financed)

Programme Code: PGM-PSY

Duration: Two Years (Four Semesters)

Aim of the Programme:

The M.A. Programme in Psychology of the Department of Psychology of Parvatibai Chowgule College of Arts and Science (Autonomous) is driven by its core objective to equip the students with in-depth knowledge and expertise in Child Psychology and Child Development. The syllabus has been specifically designed to bridge the gap between education and industry. With major emphasis on skill-based courses, the M.A. Programme intends to equip students with the knowledge and skills required to deal with issues pertaining to children. This course emphasizes on experiential learning with focus on research, case study method and internship. To gain skills and practical knowledge, the student will be exposed to various field trips, institutions working with child development and will have experiential learning through various case studies.

On successful completion of the course, students will be eligible to work as psychologists, psychotherapists and counsellors in schools, counselling centres & child development centres. Students can also join in the field of academics and research related to child psychology & child development.

Eligibility and Selection Procedure:

Admission to the two year, four semesters, full time programme leading to the degree of Master of Arts in Psychology is based on merit. It is open to any candidate passing the Bachelor's Degree Examination in Psychology with a minimum score of 50%. Students from other disciplines can seek admission provided there are seats available and will be required to clear the entrance examination. Proficiency in the English language is a basic requirement for the programme.

Total Number of Seats (including reserved seats): 20

Total Fees for Part I (Semesters 1 and 2): ☐ 75152/-
Total Fees for Part II (Semesters 3 and 4): ☐ 75152/-

*Note: Fees for the academic year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

Sr. No.	Nature of Courses	Credits Required
1	Core - Theory	16
2	Core - Skill based	16
3	Elective	32
	TOTAL	**64**

Course Structure - M.A. in Child Psychology and Child Development

PGM-PSY	Odd Semester	Even Semester
	First Semester	**Second Semester**
Part One	Core (Theory) Course Credits - 04	Core (Theory) Course Credits - 04
	Core (Skill-based) Course Credits - 04	Core (Skill-based) Course Credits - 04
	Elective Course Credits - 08	Elective Course Credits - 08
	Total First Semester Credits =16	**Total Second Semester Credits = 16**
	Third Semester	**Fourth Semester**
Part Two	Core (Theory) Course Credits - 04	Core (Theory) Course Credits - 04
	Core (Skill-based) Course Credits - 04	Core (Skill-based) Course Credits - 04
	Elective Course Credits - 08	Elective Course Credits - 08
	Total Third Semester Credits = 16	**Total Fourth Semester Credits = 16**

Course Information (a)

Sr. No.	Course Titles	Course Code	Course Credits
	CORE COURSES		
	Semester I		
1	Child Development (Theory)	PGM-PSY-C1	04
2	Practicum (Skill-Based)	PGM-PSY-S-C2	04

Course Information (a) Continued

Sr. No.	Course Titles	Course Code	Course Credits
	CORE COURSES		
	Semester II		
3	Child Psychopathology	PGM-PSY-C3	04
4	Counseling Therapies for Children I (Skill Based)	PGM-PSY-S-C4	04
	Semester III		
5	Counseling Approaches	PGM-PSY-C5	04
6	Counseling Therapies for Children II (Skill Based)	PGM-PSY-S-C6	04
	Semester IV		
7	Children with Disabilities and Understanding Special Needs	PGM-PSY-C7	04
8	Management of Learning Disabilities	PGM-PSY-S-C8	04

Course Information (b)

Sr. No.	Course Titles	Semester	Course Code	Course Credits
	ELECTIVE COURSES			
1	Research Methodology in Psychology-I	I	PGM-PSY-I-E1	04
2	School Counselling	I	PGM-PSY-I-E2	04
3	Theories of personality	I	PGM-PSY-I-E3	04
4	Research Methodology in Psychology-II	II	PGM-PSY-I-E4	04
5	Child & Crime	II	PGM-PSY-I-E5	04
6	Psychology of Adolescence	II	PGM-PSY-I-E6	04
7	Advanced Statistics in Psychology	III	PGM-PSY-I-E7	04
8	NGO Management	III	PGM-PSY-I-E8	04
9	Paediatric Psychology	III	PGM-PSY-I-E9	04
10	Research Writing	IV	PGM-PSY-I-E10	04
11	Rehabilitation Psychology	IV	PGM-PSY-I-E11	04
12	Counselling Parents	IV	PGM-PSY-I-E12	04

For additional information contact:
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Master of Arts in Geography

(M.A. in Geography)

(Self-Financed)

Programme Code: PGM-GEG

Duration: Two Years (Four Semesters)

Aim of the Programme:

The aim of the M.A. programme in Geography is to develop confident geographers through various activities and initiatives of the department enabling them to acquire skills and knowledge in order to improve their employability skills.

Eligibility and Selection Procedure:

A student with a minimum score of 50% (CGPA of 5.3 and above in case of CBCS) at B.A/B.Sc. Examination (preferably with Geography) from a recognized University/Institute is eligible. Students with courses other than Geography may also apply; however, their selection will be based on their performance in the Aptitude Test in Geography, conducted by the department.

Total Number of Seats (including reserved seats): 20

Total Fees for Part I (Semesters 1 and 2): ☐ 60093‑

Total Fees for Part II (Semesters 3 and 4): ☐ 57380‑

*Note: Fees for the academic year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	32
2	Elective Courses	32
	Total Credits Required	64

Course Structure of M.A. in Geography

PGM-GEG	Odd Semester	Even Semester
Part One	**First Semester**	**Second Semester**
	Core Course Credits – 08	Core Course Credits – 08
	Elective Courses Credits - 08	Elective Courses Credits - 08
	Total First Semester Credits = 16	**Total Second Semester Credits = 16**
Part Two	**Third Semester**	**Fourth Semester**
	Core Course Credits - 08	Core Course Credits - 08
	Elective Courses Credits - 08	Elective Courses Credits - 08
	Total Third Semester Credits = 16	**Total Fourth Semester Credits = 16**

Course Information (a)

Sr. No.	Course Titles	Course Code	Course Credits
	CORE COURSES		
	Semester I		
1	Advanced Geomorphology	PGM-GEG.C1	4
2	Advanced Climatology	PGM-GEG.C2	4
	Semester II		
3	Geography of Population	PGM-GEG.C3	4
4	Advanced Economic Geography	PGM-GEG.C4	4
	Semester III		
5	Statistical Techniques in Geography	PGM-GEG.C5	4
6	Fundamentals of Remote Sensing	PGM-GEG.C6	2
7	Practical's in Remote Sensing	PGM-GEG.C7	2
	Semester IV		
8	Regional planning and development	PGM-GEG.C8	4
9	Fundamentals of Geoinformatics System	PGM-GEG.C9	2
10	Practical's in Geoinformatics System	PGM-GEG.C10	2

Course Information (b)

Sr. No.	Core Titles	Course Code	Course
	ELECTIVE COURSES		
1	Basics of Coastal Geomorphology	PGM-GEG.E1	2
2	Teaching Techniques in Geography	PGM-GEG.E2	2
3	Techniques of Academic Report Writing	PGM-GEG.E3	2
4	Geography of Environment	PGM-GEG.E4	2
5	Geography and Tourism	PGM-GEG.E5	2
6	Field Techniques	PGM-GEG.E6	2
7	Regional Geography of India	PGM-GEG.E7	2
8	Soil geography	PGM-GEG.E8	2
9	Watershed Management	PGM-GEG.E11(New)	2
10	Geographical Thought	PGM-GEG.E10	2
11	Basics of Research Methodology	PGM-GEG.E11	2
12	Map Interpretation & Cartography	PGM-GEG.E12	2
13	Geography and Development Models	PGM-GEG.E13	2
14	Digital Image Processing	PGM-GEG.E14	2
15	Tourism Planning and Development	PGM-GEG.E15	2
16	Urban Settlements	PGM-GEG.E16	2
17	Advance Coastal Geomorphology	PGM-GEG.E17	2
18	Dissertation	PGM-GEG.E18	4

For additional information contact:

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Master of Arts in English

(M.A. in English)

(Self-Financed)

Programme Code: PGM-ENG

Duration: Two Years (Four Semesters) Aim of the Programme:

The M.A. programme in English lays emphasis on literature courses, skill-based courses, and contemporary literary courses and is specially designed to bridge the gap between education and industry. The programme focuses on experiential learning while underscoring research, teaching, creative writing and writing for the media. The two year programme is a mix of core and elective papers with a blend of theory and skill based courses. A bridge course has also been designed to integrate new students into our system.

To attain this objective the department uses several innovative teaching-learning methods - interactive methods of teaching English language and literature, screening of films based on English novels and plays, use of audio-visuals in teaching. The Department also pays equal attention to the co-curricular and extracurricular activities, through their MA English student initiative - Ignite. Through this the students have organized community panel discussions, Book-chats, celebrated cultural days - Asian Lit Day, Gaia – World Lit Day, and even Cosplay events such as - Mythos.

Eligibility and Selection Procedure:

Students who have completed B.A. with English (Honours/Single Major) or English (Regular/ Double Major/Major in Major/Minor), well-versed in English language, have a passion for language and literature, are technologically savvy, and who are inclined towards creativity, are eligible to enrol in the programme. Any student who has a strong desire to study English Literature and its allied courses may seek admission with the following eligibility conditions: (a) Graduate with minimum score of 60% preferably with English, and (b) Any student from other discipline may seek admission through a change of faculty exam conducted by the department prior to admission (provided there are seats available).

Total Number of Seats (including reserved seats): 25

For additional information contact:

Mr. Andrew S Barreto asb002@chowgules.ac.in

Total Fees for Part I (Semesters 1 and 2): ☐ **73498/-**

Total Fees for Part II (Semesters 3 and 4): ☐ **70608/-**

*Note: Fees for the academic year 2022-23 are **Subject to Change**

‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	32
2	Elective Courses	32
3	Bridge Courses (Optional)	4*
	Total Credits Required	64
*4 Credits obtained from Bridge Courses are not considered for determining the CGPA.		

Course Structure - M.A. in English

PGM-ENG	Odd Semester	Even Semester
Part One	**First Semester**	**Second Semester**
	Core Courses Credits - 08	Core Courses Credits - 08
	Elective Courses Credits - 08	Elective Courses Credits - 08
	Bridge Course Credits - 02	Bridge Course Credits - 02
	Total First Semester Credits = 16+02	**Total Second Semester Credits = 16+02**
Part Two	**Third Semester**	**Fourth Semester**
	Core Courses Credits - 08	Core Courses Credits - 08
	Elective Courses Credits - 08	Elective Courses Credits - 08
	Total Third Semester Credits = 16	**Total Fourth Semester Credits = 16**

Course Information (a)

	CORE COMPULSORY	CORE ELECTIVES		CORE COMPULSORY	CORE ELECTIVES
SEMESTER I	**PGM-ENG-C1** English Poetry **PGM-ENG-C3** Exploring Narratives in Fiction **BRIDGE COURSE (OPTIONAL)** **PGM-ENG-B1** Engaging Literature	TWO Electives Chosen From Core Elective list	**SEMESTER III**	**PGM-ENG-C4** Linguistics **PGM-ENG-C7** Post-Colonial: Theory And Practice	TWO Electives Chosen From Core Elective list
SEMESTER II	**PGM-ENG-C2** Twentieth Century English Drama **PGM-ENG-C5** Literary Theory **BRIDGE COURSE (OPTIONAL)** **PGM-ENG-B2** Research Methodology	TWO Electives Chosen From Core Elective list	**SEMESTER IV**	**PGM-ENG-C8** Asian Literature **PGM-ENG-C10** World Literature	TWO Electives Chosen From Core Elective list

Students will choose TWO electives from the following pool of electives as offered for each semesters by the department in the academic year.

CORE ELECTIVES

PGM-ENG-E1 Technical and Media Writing	**PGM-ENG-E10** Film Studies
PGM-ENG-E2 Green Studies	**PGM-ENG-E11** Prose Writings
PGM-ENG-E3 Visual Literature- Perspectives	**PGM-ENG-E12** Women's Literature
PGM-ENG-E4 Creative Writing	**PGM-ENG-E13** Children's Literature
PGM-ENG-E5 Mythology, Archetype & Literature	**PGM-ENG-E14** World Subaltern: Aboriginal Narratives
PGM-ENG-E6 Indian Literature in Translation	**PGM-ENG-E15** Gender & Sexuality
PGM-ENG-E7 Shakespeare	**PGM-ENG-E16** The Indian Subaltern: Dalit and Transgender Narratives
PGM-ENG-E8 Popular Literature	**PGM-ENG-E17** Modern European Literature
PGM-ENG-E-9 ELLT (English Language and Literature Teaching)	**DISSERTATION (OPTIONAL)**

*If Dissertation is an elective in Sem. 3, it has to be continued in Sem. 4. The dissertation is evaluated for 200 marks in its entirety towards the end of Semester 4. The total of 08 credits are earned on satisfactory completion of the dissertation.

Master of Arts in Hindi

(M.A. in Hindi)

(Self-Financed)

Programme Code: PGM-HIN

Duration: Two Years (Four Semesters)

Aim of the Programme:

The M.A. programme in Hindi focuses on development of various skills like aesthetic, creative writing, linguistic as well as literary. It enhances the employability skills of the students. The programme also includes courses which guide the students towards improving research writing skills. The students receive wholesome education which moulds them into wholesome personalities. Thereby enabling them to outshine in society at various levels like, linguistic, literary as well as social.

In addition to teaching, after doing M.A. in Hindi, students can also pursue their career in the fields of media, official language, translation, writing etc.

Eligibility and Selection Procedure:

A candidate seeking admission to the two year, four semesters, full-time programme must be a graduate in Arts with Hindi Major and must have scored at least 50% aggregate marks from a recognized university. The admission will be based on merit.
Candidates from other streams or those who do not have a Hindi Major will have to answer and clear an entrance exam to get admission.

The student should have knowledge of reading and writing in Hindi language. Students are expected to have interest in Hindi language and literature and are committed to doing something new in the field.

Total Number of Seats (including reserved seats): 20

Total Fees for Part I (Semesters 1 and 2): ☐ **54116/-**
Total Fees for Part II (Semesters 3 and 4): ☐ **53938/-**

*Note: Fees for the academic year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	32
2	Elective Courses	32
	Total Credits	64

Course Structure - M.A. in Hindi

PGM-HIN	Odd Semester	Even Semester
Part One	**First Semester**	**Second Semester**
	Core Course Credits –08	Core Course Credits – 08
	Elective Courses Credits - 08	Elective Courses Credits - 08
	Total First Semester Credits = 16	**Total Second Semester Credits = 16**
Part Two	**Third Semester**	**Fourth Semester**
	Core Course Credits – 08	Core Course Credits – 08
	Elective Courses Credits –08	Elective Courses Credits –08
	Total Third Semester Credits = 16	**Total Fourth Semester Credits = 16**

Course Information (a)

Sr. No.	Course Titles	Course Code	Course Credits
	CORE COURSES		
1	Hindi Sahitya Ka Itihas (Aadikal, Bhaktikal Evam Ritikal)	PGM-HIN-C-1	4
2	Prachin Evam Madhyakalin Kavya	PGM-HIN-C-2	4
3	Hindi Sahitya Ka Itihas: Adhunik Kal	PGM-HIN-C-3	4
4	Adhunik Kavya	PGM-HIN-C-4	4
5	Bharatiya Kavyashastra	PGM-HIN-C-5	4
6	Natak Evam Rangmanch	PGM-HIN-C-6	4
7	Pashchatya Kavyashastra	PGM-HIN-C-7	4
8	Adhunik Gadya (Natak, Upanyas, Nibandh, Kahani)	PGM-HIN-C-8	4

Course Information (b)

Sr. No.	Course Titles	Course Code	Course Credits
	ELECTIVE COURSES		
1	Bhasha Vigyan	PGM-HIN-E-1	4
2	Vishesh Rachanakar: Sachchidanand Hiranand Vatsayan 'Agyey'	PGM-HIN-E-2	4
3	Dalit Vimarsh	PGM-HIN-E-3	4
4	Anuvad	PGM-HIN-E-4	4
5	Vishesh Vidha: Upanyas	PGM-HIN-E-5	4
6	Vishesh Vidha: Kahani	PGM-HIN-E-6	4
7	Aalochak Aur Aalochana	PGM-HIN-E-7	4
8	Patrakarita Evam Jansanchar Madhyam	PGM-HIN-E-8	
9	Bharatiya Sahitya	PGM-HIN-E-9	4
10	Prayojanmulak Hindi	PGM-HIN-E-10	4
11	Aadhunik Hindi Sahitya Ki Vaicharik Prushtbhumi	PGM-HIN-E-11	4
12	Hindi Bhasha, Lipi, Vyakran Evam Sarvekshan	PGM-HIN-E-12	4
13	Media Lekhan	PGM-HIN-E-13	
14	Stree Vimarsha	PGM-HIN-E-14	4
15	Gadhya Ki Anya Vidhaein	PGM-HIN-E-15	4
16	Shodh Pravidhi	PGM-HIN-E-16	4

For additional information contact:

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Master of Science in Analytical Chemistry

(M.Sc. in Analytical Chemistry)

(Self-Financed)

Programme Code: PGM-CHE

Duration: Two Years (Four Semesters)

Aim of the Programme:

Analytical Chemistry forms the basis of research not only in the field of Chemistry but also in many other branches of Sciences. Thus, it provides the scope for recruitment of students in research fields as Research Scholars, Research Associates and Project Assistants. Pharmaceutical industries look for skillful analytical chemists. Goa being a center for many multinational pharmaceutical companies, Analytical Chemistry is a potential field for providing employment.

Analytical Chemistry, being an experimental science, addresses the students' training needs by focusing on practical work so as to help them to acquire expertise in performing experiments and to handle sophisticated instruments. The data obtained needs statistical analysis to establish authenticity in the fields like environmental science, space chemistry and biotechnology. There are immense potentialities for post graduates to undertake advanced research or be employed in industries as skilled chemists.

The course gives an introduction to all branches of chemistry including basic analytical methods. It provides a sound background in understanding fundamental concepts, good laboratory practices, data management and analysis with extrapolation of results; design of experiment, planning a safe working practice including evaluation of hazards and environmental effects; achieve a common research goal working in a small team; self-led practical-based research, especially on characterization based on analytical instrumentation methods like spectroscopy, chromatography and many more with appreciation of issues in each of these fields on the current research.

Eligibility and Selection Procedure:

Admission to the two year, four semesters, full time course leading to the degree in Master of Science in Analytical Chemistry is open to any candidate completing B. Sc. Examination, scoring minimum 60 % pass percentage with 6 Units Chemistry along with Analytical Chemistry as one of the courses. The selection of the candidate for PG is purely on merit, based on the performance of the student at T.Y. B. Sc. University Examination.

Total Number of Seats (including reserved seats): 20

Total Fees for Part I (Semesters 1 and 2): ☐ 109330/-

Total Fees for Part II (Semesters 3 and 4): ☐ 108550/-

*Note: Fees for the Academic Year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

S. No.	Nature of Courses	Credits Required
1	Core (General) Courses	20
2	Core (Analytical Chemistry) Courses	12
3	Elective (General) Courses	12
4	Elective (Analytical Chemistry) Courses	20
	Total Credits	64

Course Structure M.Sc. in Analytical Chemistry

PGM-CHE	Odd Semester	Even Semester
Part One	**First Semester**	**Second Semester**
	Core Course Credits - 10	Core Course Credits - 10
	Elective Courses Credits - 06	Elective Courses Credits - 06
	Total First Semester Credits = 16	**Total Second Semester Credits = 16**
Part Two	**Third Semester**	**Fourth Semester**
	Core Course Credits (Analytical Chemistry) - 09	Core Course Credits (Analytical Chemistry) - 03
	Elective Courses Credits (Analytical Chemistry) - 06	Elective Courses Credits (Analytical Chemistry) - 14
	Total Third Semester Credits = 15	**Total Fourth Semester Credits = 17**

Course Information (a)

S. No.	Course Title	Course Code	Course Credits
	CORE COURSES (SEMESTER I AND II)		
1	Spectroscopy in Chemistry	PGM-CHE-AC-C401	3
2	Laboratory Course in Analytical Chemistry	PGM-CHE-AC-C402	2
3	General Inorganic Chemistry	PGM-CHE-IC-C401	3
4	Laboratory Course in Inorganic Chemistry	PGM-CHE-IC-C402	2
5	General Organic Chemistry	PGM-CHE-OC-C401	3
6	Laboratory Course in Organic Chemistry	PGM-CHE-OC-C402	2
7	General Physical Chemistry	PGM-CHE-PC-C401	3
8	Laboratory Course in Physical Chemistry	PGM-CHE-PC-C402	2
	CORE COURSES (ANALYTICAL CHEMISTRY) (SEMESTER III AND IV)		
1	Fundamentals of Titrametric Analysis	PGM-CHE-AC-C501	3
2	Separation Techniques	PGM-CHE-AC-C502	3
3	Spectral Methods of Analysis	PGM-CHE-AC-C503	3
4	Experiments In Analytical Chemistry	PGM-CHE-AC-C504	3

Course Information (b)

S. No.	Course Title	Course Code	Course Credit
	ELECTIVE COURSES (SEMESTER I AND II)		
1	Analytical Techniques	PGM-CHE-AO-E401	2
2	Electro Analytical Techniques - I	PGM-CHE-AO-E402	2
3	Electro Analytical Techniques - II	PGM-CHE-AO-E403	2
4	Topics in Inorganic Chemistry	PGM-CHE-IO-E401	2
5	Environmental Control and Chemical Analysis	PGM-CHE-IO-E402	2
6	Reaction Mechanisms in Organic Chemistry	PGM-CHE-OO-E401	2
7	Reagents in Organic Synthesis	PGM-CHE-OO-E402	2
8	Topics in Physical Chemistry	PGM-CHE-PO-E401	2
9	Diffraction Methods	PGM-CHE-PO-E402	2
10	Physical organic Chemistry , Pericyclic and Photochemical reaction	PGC-CHE-OO-E403	2
	ELECTIVE COURSES (ANALYTICAL CHEMISTRY) (SEMESTER III AND IV)		
11	Quality Assurance and Quality Control in Analytical Chemistry	PGM-CHE-AO-E509	2
12	Bio analytical Chemistry	PGM-CHE-AO-E504	2
13	Calibrations and Validation	PGM-CHE-AO-E505	2
14	Advanced Mass Spectrometry	PGM-CHE-AO-E501	2
15	Applied Analytical Chemistry	PGM-CHE-AO-E503	2
16	Advanced NMR Spectroscopy	PGM-CHE-AO-E502	2
17	Chemo metrics	PGM-CHE-AO-E506	2
18	Dissertation	PGM-CHE-AO-D510	8
19	Modules in Experimental Chemistry	PGM-CHE-AO-M511	4
20	Internship Module	PGM-CHE-AO-I512	4
21	Techniques in Chemical Analysis	PGM-CHE-AO-E507	2
22	Thermal Methods of Analysis	PGM-CHE-AC-E508	2

For additional information contact:

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Master of Science in Geoinformatics

(M.Sc. in Geoinformatics)

(Self-Financed)

Programme Code: PGM-GIS

Duration: Two Years (Four Semesters)

Aim of the Programme:

The aim of M.Sc in Geoinformatics is to develop students with strong practical and theoretical knowledge of diverse disciplines in geospatial technology and professional skills through various activities and initiatives of the department enabling them to acquire software skills and knowledge in order to improve their employability. The programme also includes courses which guide the students towards improving research writing skills. The students undertake and work on live projects in national research institutes like NRSC, IIRS & NIO to get hands-on experience. The main focus is on research, entrepreneurship, teaching and geospatial skills.

Eligibility and Selection Procedure:

A graduate with a minimum score of 50% (CGPA of 5.3 and above in case of CBCS) in the final Examination of any B.Sc. programme or M.A. with Geography from a recognized University/Institute is eligible. Students with courses related to earth science may also apply; however, their selection will be based on their performance in the Aptitude Test in Geography, conducted by the department.

Total Number of Seats (including reserved seats): 20

Total Fees for Part I (Semesters 1 and 2): ☐ 62595/-

Total Fees for Part II (Semesters 3 and 4): ☐ 61798/-

*Note: Fees for the academic year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	32
2	Elective Courses	32
	Total Credits Required	64

Course Structure - M.Sc. in Geoinformatics

PGM-GIS	Odd Semester	Even Semester
	First Semester	**Second Semester**
Part One	Core Course Credits - 08	Core Course Credits – 08
	Elective Courses Credits - 08	Elective Courses Credits – 08
	Total First Semester Credits = 16	**Total Second Semester Credits = 16**
	Third Semester	**Fourth Semester**
Part Two	Core Course Credits - 04	Core Course- Credits - 16
	Elective Courses Credits - 12	
	Total Third Semester Credits = 16	**Total Fourth Semester Credits = 16**

Course Information (a)

Sr. No.	Course Title	Course Code	Course Credits
	CORE COURSES		
	SEMESTER I		
1	Basics of GIS and GPS	PGM-GIS-C1	4
2	Basics of RS and Photogrammetry	PGM-GIS-C2	4
	SEMESTER II		
3	Spatial Analysis & Modelling	PGM-GIS-C3	4
4	Advanced Remote Sensing and GIS	PGM-GIS-C4	4
	SEMESTER III		
5	Applications of GIS in Urban and Regional Planning	PGM-GIS-C5	4
	SEMESTER IV		
6	Project Work	PGM-GIS-C6	16
Each course assigns 02 credits for Theory and 02 credits for Practical work.			

Course Information (b)

Sr. No.	Course Title	Course Code	Course Credits
ELECTIVE COURSES			
1	Digital Cartography	PGM-GIS-E1	4
2	Geo-statistics	PGM-GIS-E2	4
3	Principles of Computer and Programming	PGM-GIS-E3	4
4	Digital Image Processing	PGM-GIS-E4	4
5	Programming & Customization	PGM-GIS-E5	4
6	Field techniques and Report writing	PGM-GIS-E6	4
7	GIS for Disaster Management	PGM-GIS-E7	4
8	WEB GIS and its Application in GIS	PGM-GIS-E8	4
9	Research methodology	PGM-GIS-E9	4
10	Applications of GIS in Resource Management	PGM-GIS-E10	4
11	Applications of GIS in Agriculture and Soil	PGM-GIS-E11	4
Each course assigns 02 credits for Theory and 02 credits for Practical work.			

For additional information contact:
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Master of Science in Information Technology

(M.Sc. in Information Technology)

(Self-Financed)

Programme Code: PGM-IT

Duration: Two Years (Four Semesters)

Aim of the Programme:

The aim of M.Sc. in Information Technology is to provide the students with strong theoretical and practical knowledge of different disciplines in Information Technology and to develop their skills in software development and research so that they become competent to join the IT industry or academic organizations.

MSc IT curriculum includes core courses in Operating Systems and Networks, Data Mining, Design & Analysis of Algorithms etc. The elective courses include Advanced Database Management Systems, Natural Language Processing, Software Testing, Information Retrieval, Mobile Computing etc.

Apart from regular lectures, presentations and assignments, the department also organizes workshops and lectures on recent technologies delivered by industry professionals. Student's projects and assignments undergo rigorous verification & validation by faculty and industry experts. The students undertake and work on live projects through FOSS (Free Open Source Software) Club to get hands-on experience.

Fourth Semester of MSc IT is entirely for internship. The department placement team and well connected alumni network facilitate students appearing in the selection process of various IT companies in Goa and neighboring states. After successful completion of their internships most students get absorbed in the same companies as regular employees. NIC Goa, IMMO Tech, Creative Capsule, Anant Infomedia, 3D Systems, OPSPL, Numadic, Spintly are names of some companies worth mentioning where our students did their internships from and continue to work.

Eligibility and Selection Procedure:

Candidates with B.Sc. (Computer Science) / B.C.A. /B. Voc (Software Development)/ Equivalent degree with a minimum score of 55% at degree level are eligible. Candidates with a score of 60% and above at P.G.D.C.A. and at least a minimum 50% at B.Sc. (Computer Science) /B.C.A. /Equivalent are also eligible to apply. Selection of candidates is done on merit on the basis of their performance at the Admission Ranking Test.

Total Number of Seats (including reserved seats): 20

Total Fees for Part I (Semesters 1 and 2): ☐ 115947/-

Total Fees for Part II (Semesters 3 and 4): ☐ 115947/-

*Note: Fees for the academic year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 64

Sr. No.	Nature of Courses	Credits Require
1	Core Theory Courses	22
2	Core Laboratory Courses	10
3	Elective Courses	24
4	Elective Project or Dissertation	08
	Total Credits Required	64

Course Structure - M.Sc. in Information Technology

PGM-IT	Odd Semester	Even Semester
	First Semester	**Second Semester**
Part One	Core Theory Courses Credits - 08	Core Theory Courses Credits - 10
	Core Laboratory Courses Credits - 04	Core Laboratory Courses Credits - 4
	Elective Courses Credits - 8	Elective Courses Credits - 08 Credits
	Total First Semester Credits = 20	**Total Second Semester Credits = 22**
	Third Semester	**Fourth Semester**
Part Two	Core Theory Courses Credits - 04	Elective Course Credits (Project or Dissertation) - 08
	Core Laboratory Courses Credits - 02	
	Elective Courses Credits - 08	
	Total Third Semester Credits = 14	**Total Fourth Semester Credits = 08**

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Course Information (a)

Sr. No	Course Titles	Course Code	Course Credits
	CORE COURSES		
	Semester I		
1	Data Structures and Algorithms	PGM-IT-C1	4
2	Operating Systems and Networks	PGM-IT-C2	4
3	Data Structures and Algorithms Lab	PGM-IT-C3	2
4	Operating Systems and Networks Lab	PGM-IT-C4	2
	Semester II		
5	Software Architecture, Design Patterns and Frameworks	PGM-IT-C5	4
6	Design and Analysis of Algorithms	PGM-IT-C6	4
7	Statistical Computing	PGM-IT-C7	2
8	Software Architecture, Design Patterns and Frameworks Lab	PGM-IT-C8	2
9	Design and Analysis of Algorithms Lab	PGM-IT-C9	2
	Semester III		
10	Information Retrieval	PGM-IT-C10	4
11	Information Retrieval Lab	PGM-IT-C11	2

Course Information (b)

Sr. No.	Course Titles	Course Code	Course Credits
	ELECTIVE COURSES		
1	Computer Graphics	PGM-IT-E1	4
2	Mobile Computing	PGM-IT-E2	4
3	Cloud Computing	PGM-IT-E3	4
4	Seminar	PGM-IT-E4	2
5	Advanced Database Management Systems	PGM-IT-E5	4
6	Advanced Database Management Systems Lab	PGM-IT-E6	2
7	Natural Language Processing	PGM-IT-E7	4
8	Natural Language Processing Lab	PGM-IT-E8	2
9	Data Mining	PGM-IT-E9	4
10	Machine Learning	PGM-IT-E10	4
11	Software Metrics & Project Management	PGM-IT-E11	4
12	Compiler Design	PGM-IT-E12	4
13	Software Testing	PGM-IT-E13	4
14	Communication Skills Course	PGM-IT-E14	4
15	Applied Probability and Statistics	PGM-IT-E15	4
16	Middleware Technology	PGM-IT-E16	4
17	Educational Technology	PGM-IT-E17	2
18	Network Security	PGM-IT-E18	4
19	Image Processing	PGM-IT-E19	4
20	Project (Semester 4)	PGM-IT-E20	8
21	Dissertation (Semester 4)	PGM-IT-E21	8

For additional information contact:
Mr. Gajanan Nial   gpn0000@chowgules.ac.in   Mr. Amogh Raiturkar   asr007@chowgules.ac.in

Postgraduate Diploma Programmes

2022 - 2023

Post-Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques

(Self-Financed)

Programme Code: PGD-CGMLT

Duration: One Year (Two Semesters)

Aim of the Programme:

Overall the course is designed to provide a strong foundation in all areas of Human genetics and medical lab techniques with opportunities for hands-on laboratory and clinical experience. The curriculum includes lectures, practicals, classroom discussions and intensive practical training (Internship).

The Objective of the courses is to enable the students in having job opportunities in Research and Development and in the medical field. The course syllabus is designed considering the need for trained technicians and technologists in the genetic and pathological field. This self financed, job oriented course will meet the demand for genetic and pathological technicians in diagnostic labs and hospitals.

Eligibility and Selection Procedure:

To be eligible for admission to the programme leading to the award of Post Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques/ Certificate Programme, the candidate must have passed the Bachelor's Degree examination of this University or the equivalent examination of any other recognized University, securing a minimum of 45% marks on aggregate or equivalent Grade or as specified for a specific Programme in Biological Science (Science graduate with Zoology, Microbiology, Biotechnology -6 units / or 3 units, with chemistry up to SYBSc).

Total Number of Seats (including reserved seats): 15

Total Fees: ☐ 80667/-

*Note: Fees for the academic year 2022-23 are **Subject to Change**

‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required to complete the Programme: 40+08

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	20
2	Elective Courses	20
3	Internship/Hands on Training (Compulsory)	08*
	Total Credits	40 + 08

*08 credits of Internship/Hands on Training are not considered for calculating the CGPA.

Course Structure - Post-Graduate Diploma in Clinical Genetics and Medical Laboratory Techniques

PGD-CGMLT	Odd Semester	Even Semester
Courses	**First Semester**	**Second Semester**
	Core Courses Credits - 12	Core Courses Credits - 08
	Elective Courses Credits - 08	Elective Courses Credits - 12
	Total First Semester Credits = 40	**Total Second Semester Credits = 40**
Students need to complete **Internship/Hands on training involving 08 credits** on completion of Second Semester.		

Course Information

Sr. No.	Course Title	Course Code	Course Credits
	SEMESTER I		
	Core Courses		
1	Clinical Genetic Techniques I	PGD-CGMLT-C1	4
2	Clinical Biochemistry I	PGD-CGMLT-C2	4
3	Clinical Microbiology (General and Systemic)	PGD-CGMLT-C3	4
	Elective Courses		
4	Clinical Pathology and Histopathology	PGD-CGMLT-E1	4
5	Analytical Techniques (SWAYAM online course)	PGD-CGMLT-E2	4
6	Essentials of Biomolecules: Nucleic Acids and Peptides (SWAYAM online course)	PGD-CGMLT-E3	4
	Semester II		4
	Core Courses		
7	Clinical Genetic Techniques II	PGD-CGMLT-C4	4
8	Clinical Biochemistry II	PGD-CGMLT-C5	4
	Elective Courses		
9	Clinical Parasitology, Mycology and Virology	PGD-CGMLT-E4	4
10	Haematology and Transfusion Medicine	PGD-CGMLT-E5	4
11	Biomolecules: Structure, Function in Health and Disease (SWYAM online course)	PGD-CGMLT-E6	4
12	Immunology (SWYAM online course)	PGD-CGMLT-E7	4
Each non-SWYAM course carries 03 credits of theory component and 01 credit of practical component			

For additional information contact:

Dr.Nandini Vaz Fernandes   nvf001@chowgules.ac.in

Post-Graduate Diploma in Geoinformatics

(Self-Financed)

Programme Code: PGD-GIS

Duration: One Year (Two Semesters)

Aim of the Programme:

The aim of Post graduate diploma in Geoinformatics (PGDGIS) is to develop students with strong knowledge of Geospatial technology and professional skills through various activities and initiatives of the department enabling them to acquire software skills and knowledge in order to improve their employability.

Eligibility and Selection Procedure:

A graduate with a minimum score of 50% (CGPA of 5.3 and above in case of CBCS) in the final Examination of any B.Sc. programme or B.A. with Geography from a recognized University/Institute is eligible. Students with courses related to earth science may also apply; however, their selection will be based on their performance in the Aptitude Test in Geography, conducted by the department.

Total Number of Seats (including reserved seats): 20

Total Fees: ☐ 60328/‑

*Note: Fees for the academic year 2022-23 are **Subject to Change**
‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the programme: 40

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	20
2	Elective Courses	20
	Total Credits	40

Course Structure - Post-Graduate Diploma in Geoinformatics

PGD-GIS	Odd Semester	Even Semester
Courses	**First Semester**	**Second Semester**
	Core Courses - Credits 12	Core Courses - Credits 08
	Elective Courses -Credits 08	Elective Courses -Credits 12
	Total First Semester Credits = 20	**Total Second Semester Credits = 20**

Course Information (a)

Sr. No.	Course Title	Course Code	Course Credits
	CORE COURSES		
	Semester I		
1	Basics of GIS and GPS	PGD-GIS-C1	**4**
2	Geostatistics	PGD-GIS-C2	**4**
3	Basic of RS and Photogrammetry	PGD-GIS-C3	**4**
	Semester II		
4	Spatial Analysis and Modelling	PGD-GIS-C4	**4**
5	Advanced Remote Sensing and GIS	PGD-GIS-C5	**4**

Course Information (b)

Sr. No.	Course Title	Course Code	Course Credits
	ELECTIVE COURSES		
1	Digital Cartography	PGD-GIS-E1	**4**
2	Principles of Computer and Programming	PGD-GIS-E2	**4**
3	Digital Image Processing	PGD-GIS-E3	**4**
4	GIS for Environmental Management	PGD-GIS-E4	**4**
5	Pilot Project, Filed Work and Tour	PGD-GIS-E5	**4**
6	Application of GIS in Agriculture and Soil	PGD-GIS-E6	**4**

For additional information contact:

Venkatesh G. Prabhugaonkar   vgp005@chowgules.ac.in   Dr. Anil Yedage   asy002@chowgules.ac.in

Post-Graduate Diploma in Computer Applications

(Government Aided)

Programme Code: PGD-CA

Duration: One Year (Two Semesters)

Aim of the Programme:

The P.G.D.C.A. Programme aims to give the students a sound background in theory and practice of Computer Application in various fields. It comprises of various Software courses, Skill Based Elective courses, courses on Educational Technology and latest emerging trends in the field of IT.

The choice of Elective courses is based on different career options, since the students who enroll for this course are from different domains like Arts, Science, Commerce etc. The syllabus of the course conforms to the requirements prescribed by the Goa University with upward mobility to the M.Sc. (IT) programme. The PGDCA is recognized as a professional course by the Goa University.

On completion of the programme, the career opportunities available would be in the field of Software Testing, Digital Marketing, Web Development, Network Administration, MobileApplication Development, etc. This programme is considered as an essential qualification for school computer teachers. The College has a Placement Cell which assists students in placements. Students are also encouraged to do Internships even though it is not an essential part of the curriculum.

Programme Outcome (PO) for PGDCA

At the end of the programme the students will be able to:

PO1 : Acquire problem-solving skills, especially the ability to analyze, design and implement solutions.
PO2 : Demonstrate technical skills to be employed in a competitive position in the IT field related sectors.
PO3 : Start an Entrepreneurial venture.
PO4 : Work in different fields like content development, Multimedia, Website designing, Networking, Banking industry, Academics etc.
PO5 : Pursue the M.Sc (IT) programme of Goa University conducted at Chowgule College subject to meeting other eligibility criteria.

Eligibility and Selection Procedure:

To be eligible to apply for the programme, the candidate must be a graduate having completed B.Com / B.A/ B.Sc / B.B.A/ B.C.A /B.Ed / B.E/ or any other degree.

The Final selection of students is done based on the Department's Counseling sessions with the eligible applicants.

Total Number of Seats (including reserved seats): 30

Total Fees: ☐ 22570/-

*Note: Fees for the academic year 2022-23 are **Subject to Change**

‡Additionally, students have to pay examination fees semester-wise, calculated on the basis of credits of the courses they are attempting.

Credits required for completing the Post-Graduate Diploma in Computer Applications: 40

Sr. No.	Nature of Courses	Credits Required
1	Core Courses	20
2	Elective Courses	20
	Total Credits	40

Course Structure - Post-Graduate Diploma in Computer Applications

PGD-CA	Odd Semester	Even Semester
	First Semester	**Second Semester**
Courses	Core Courses Credits – 12	Core Courses Credits - 08
	Elective Courses Credits – 08	Elective Courses Credits - 12
	Total First Semester Credits = 20	**Total Second Semester Credits = 20**

Course Information (a)

Sr. No.	Course Titles	Course Codes	Course Credits
	CORE COURSES		
	Semester I		
1	Problem Solving and Introduction to Programming	PGD-CA-C1	4
2	Data Base Management Systems	PGD-CA-C2	4
3	Client Side Technologies	PGD-CA-C3	4
	Semester II		
4	Computer Networking	PGD-CA-C5	4
5	Software Engineering	PGD-CA-C6	4
All courses entail 03 hours of lectures and 02 hour of practical work per week.			

Course Information (b)

Sr. No.	Course Titles	Course Codes	Course Credits
	ELECTIVE COURSES		
1	Multimedia	PGD-CA-E1	4
2	E-Learning	PGD-CA-E2	4
3	HCI	PGD-CA-E3	4
4	E-commerce	PGD-CA-E4	4
5	Digital Marketing	PGD-CA-E5	4
6	Network Administration	PGD-CA-E6	4
7	Software Testing	PGD-CA-E7	4
8	Server Side Programming	PGD-CA-E8	4
9	Data Structures	PGD-CA-E9	4
10	Office Automation Tools	PGD-CA-E10	4
11	Assessment and Evaluation for Learning	PGD-CA-E11	4
12	Instructional Design	PGD-CA-E12	4
13	Content Management System	PGD-CA-E13	4
14	Web Development with FLASK	PGD-CA.E.14	4
All courses entail 03 hours of lectures and 02 hour of practical work per week.			

For additional information contact:
Ms. Judith M Dias Barreto (Course Co-ordinator)
 jmb001@chowgules.ac.in OR computerscience@chowgules.ac.in

Campus Discipline and a Conducive Environment

The College is making concerted efforts to provide relevant education of global standards in a disciplined and conducive environment. For this purpose the College follows policies pertaining to the Library, Academic Integrity and Avoidance of Plagiarism, Prevention of Sexual Harassment, Information Technology and Information Systems Security, Intellectual Property Rights. These policies are available on the college website. Students are required to abide by these policies. These policies and following regulations are some building blocks of this environment and all students are required to take note of them and follow them.

College Classroom Attendance
The College runs full time programmes and requires the students to attend classroom sessions. Students should have an aggregate of 75% attendance with at least 50% attendance in a particular course to complete the programme. Students having low attendance will not be allowed to appear for examinations.

Wearing of Identity Cards and Fines
While on the College Campus the student must compulsorily wear their Identity Cards and must produce the same when any staff member of the College asks for identification. Library cards are not substitutes for official Identity Cards.
Please note the following fines are applicable:
- If a student is found not to be wearing the ID card - A fine of Rs 500/
- If students have swapped cards - A fine of Rs. 1000/- per defaulter
- For crossing over the Library flowerbeds fence or fence behind Animal House - A fine of Rs. 500/-
- For damaging College property - Estimated cost of the damage to be paid in full.
- If a student has lost the ID card, a new one can be procured at a cost of Rs. 350/- The cost of lanyard is an additional Rs 20/-

Computers Usage Rules
College encourages students to use laptops and to bring their personal laptops to the class. Students can also use the Computer Lab. Users must be fully aware of the usage rules and the IT protocol of the College. Disciplinary action will be taken against violators.

Vehicle Parking Rules
The College is not responsible for the safety of vehicles parked at the vehicle parking area of the college.
Persons must vacate the parking space after parking the vehicles. The college is also NOT responsible if the vehicle is towed away if parked in 'No Parking Area'.

Stand against Ragging
The College strictly follows the anti-ragging policy of Goa University. Whoever directly or indirectly commits, participates in, abets or instigates others to violation shall be suspended/expelled/rusticated and shall be liable to pay a fine.

Important Note
The Principal may amend the admission rules at his discretion. The Principal's decision in all matters related to admission shall be final.

Fatorda, Gogol, Margao, Goa-403602

Phone: 0832-2722222, Fax: 0832-2759067

www.chowgules.ac.in   principal@chowgules.ac.in

Parvatibai Chowgule College of Arts and Science
Autonomous

Diploma in

Aviation, Hospitality and Customer Service

True Hospitality consists of. . .

. . . giving the best of yourself

This one year Diploma in Aviation, Hospitality & Customer Service awarded by Parvatibai Chowgule College prepares the students for an exciting and satisfying career in the Aviation, Hospitality & Travel Industry. After completion of the highly elaborate and intensive training period of one year, the students who have completed this diploma will make their presence felt globally.

Eligibility

The minimum qualification for admission is 10+2 completed, awaiting results or pursuing an equivalent with English as one of the compulsory subjects.

- The Maximum age limit is 30 years for candidates as on 1st July.
- The student should be medically fit, the same should be certified by registered medical officer.

Core Training Modules

Our Training is a blend of classroom, Practical and industry exposure. This makes the candidate job ready and gives a first-hand opportunity to explore and understand the true essence of:

1. Aviation
2. Airport Handling
3. Hospitality
4. Customer Care
5. Business English
6. Community Engagement
7. Grooming
8. First Aid & Fire Safety

Course Duration

The Course duration is for One year which involves 8 months classroom Sessions, 4 months Practical training, Industry Exposure and Community Engagement.

About us

Parvatibai Chowgule College is a premier institute in the State of Goa that offers courses in Arts and Science at the Graduate, and Postgraduate and Ph.D. levels. It was re-accredited in May 2014 in the 3rd cycle of accreditation by the National Assessment and Accreditation Council (NAAC) with Grade 'A' with a cumulative grade point average (CGPA) score of 3.41 on a scale ranging from 0 to 4. Till date this is highest for any College in Goa. The College has also been conferred with Autonomy by UGC in June 2014. The only College in Goa to be Autonomous.

The Department of **Applied and Professional Studies** is a skill development department of the Chowgule Education Society that focuses on practical education, advanced professional skills, and employability. We aim at bring in industry experts to impart practical hands-on experience in all our training programs, making all our students job ready.

100% PLACEMENTS AND INTERNSHIPS

SpiceJet — Red. Hot. Spicy.

IndiGo

Radisson BLU

HYATT

ph planet hollywood

ALiLA HOTELS AND RESORTS

Marriott HOTELS & RESORTS

Azaya BEACH RESORT GOA

VISTARA Fly the new feel'ng

The Oberoi

Hilton

TAJ Hotels & Resorts

CSSI

P&O | Carnival | Costa | PRINCESS CRUISES

Faculty & Industry Connect

Our training team comprises of seasoned hoteliers, in flight managers and leaders in the customer care business who bring along a best in class experience. Our Trainers are involved in both academic and overall performance of our students and they leave no stone unturned to create excellence .

Placements & Internships

Students would be encouraged and supported to participate in industry relevant events such as outdoor catering events and social gatherings which would help in making the candidate more confident.

Industry Exposure training :- Students shall be designated to work in sectors of their choice, where they can gain a real time exposure that can connect classroom learning to real time situations.

Students will also be paid a stipend during this period.

Endless opportunity awaits…With a hands-on industry relevant curriculum, our students are ready to attract a world of opportunities. We have a dedicated placement team, headed by a highly experienced and industry connected placement manager. With **100% PLACEMENT ASSISTANCE**. We create the best opportunities for all our students.

Each of our academic program is vetted by renowned industry professionals, who do visit and have a Tete-e-tete or chat over chai with students. Internal speakers and motivation mentors connect with students to help them look at new dimensions within the industry.

World of Opportunities

The dual certification in Food and Beverage Service and Bartending helps students acquire work ready skills as Food and Beverage Service & Bartending professionals. The hands-on learning approach by leading industry professionals and academicians assist students to have an exposure to latest industry trends and practices.

DUAL CERTIFICATION IN FOOD AND BEVERAGE SERVICE AND BARTENDING

Course Name	**DUAL CERTIFICATION IN FOOD AND BEVERAGE SERVICE AND BARTENDING**
Duration	6 months
Examination type	Annual
Eligibility	SSC/ 10th
Admission Process	Merit-based
Course Fee	INR: 30,000
Average Salary	INR: 2,00,000 - 6,00,000 LPA
Employment Opportunities	International Hotel brands, cruise liners, bars and QSR
	100% Placements

The student is taught the below Modules

Food & Beverage Service Theory	
Food & Beverage Service Practical	
Bartending & Flaring	
Communication & Employability Skills	

Certification Course in Rooms Division - The Programme helps exposes students to day-to-day operations in the Housekeeping and Front Office Department. The hands-on learning approach by leading industry professionals and academicians assist students to have an exposure to latest industry trends and practices.

Certification Course in Rooms Division - Front Office & Housekeeping

Course Name	**CERTIFICATION COURSE IN ROOMS DIVISION - FRONT OFFICE & HOUSEKEEPING**
Duration	6 months
Examination type	Annual
Eligibility	SSC/ 10th
Admission Process	Merit-based
Course Fee	INR: 25,000
Average Salary	INR: 2,00,000 - 6,00,000 LPA
Employment Opportunities	International Hotel brands, cruise liners, bars and QSR
	100% Placements

The student is taught the below Modules

FRONT OFFICE (Practical + Theory)	
HOUSEKEEPING (Practical + Theory)	
IT SKILLS (Practical + Theory)	
COMMUNICATION & EMPLOYABILITY SKILLS	

Starting your own farm to fork business

A short term certificate course

VENUE: Parvatibai Chowgule College of Arts and Science

Mode: Blended (online/offline)

25 JUNE - 02 JULY 2022 *

COURSE COORDINATORS:

Hashma Mujawar
(Faculty, Dept. of Biotechnology)

Dr. Starlaine Mascarenhas
(Head of Dept. of Biotechnology)

120 hours (in lieu of internship for PCCAS students subject to approval from department heads.)

*subject to number of registrations

Registration link: http://apply.chowgules.ac.in

GUEST LECTURES BY PROMINENT SPEAKERS

I'm an entrepreneur and a startup ecosystem enabler specializing in incubating early stage startup ideas and managing a seed fund. With a background in engineering and business management, I help early stage start-ups in the Goan startup ecosystem validate their ideas, design self sustaining business models, go-to-market strategies and fundraising.

I'm currently on the lookout for startups who are working towards the UN SDGs.

Venugopal TR

I'm a Professor in the Department of Economics, BITS Pilani Goa
Incharge, BITS BIRAC BioNEST,Goa
Member, Goa State Innovation Council
Governing body Member, Don Bosco College of Engineering , Goa.

Prof. (Dr.) Mridula Goel

The course fees are:
Group of 5+ registrants:
Rs. 8999/- per individual
Group of 2-4 registrants:
Rs. 9499/- per individual
Individual registrant:
Rs. 9999/-

Discount on group registrations!

For details of the program kindly WhatsApp either of the following coordinators-
Ms. Hashma Mujawar- 7066678706
Dr. Starlaine Mascarenhas- 7798096921