

Syllabus for M. Sc. Physics, SEM IV

Choice Based Credit System (Semester Pattern)

Gondwana University, Gadchiroli

Effective from 2016-2017

Scheme of teaching and examination under semester pattern Choice Based Credit System (CBCS) for M.Sc. Program in subjects Physics

Semester IV:

Core	Theory / Practical	Teaching Scheme			Credit	Examination Scheme					
		Hrs / week				Duration in hrs	Max. Marks			Minimum Marks	
		Theory	Practical	Total			External	Internal	Total	Theory	Practical
Core 11 (PSCPHY T11)	Paper 13 Nuclear and Particle Physics	4	-	4	4	3	80	20	100	40	
Core 12 (PSCPHY T12)	Paper 14 Solid State Physics	4	-	4	4	3	80	20	100	40	
Core Elective II (PSCPHY T15)	Paper 15 Material Science II OR Nanoscience and Nanotechnology II OR Atomic and Molecular Physics II	4	-	4	4	3	80	20	100	40	
Fundation Course II	Paper 16 Spectroscopic Applications OR Optics and Optical instruments	4	-	4	4	3	80	20	100	40	
Practical.	Practical 7 (Based on Core 11, 12 and Elective II)	-	8	8	4	3-8*	80	20	100		40
Project	Project	-	8	8			80	20	100		40
Seminar 4	Seminar 4	2	-	2	1			25	25	10	
TOTAL		18	16	34	25		480	145	625	170	80

Syllabus for M. Sc. Zoology

Gondwana University, Gadchiroli

Scheme and syllabus under choice based credit system.

Syllabus for M. Sc. Zoology (Semester with choice based credit system) w e f 2016-17 Academic session.

Scheme of teaching and examination under semester pattern Choice Based Credit System (CBCS) for M.Sc. Program in Zoology

M. Sc. Zoology Semester IV

Code	Theory / Practical	Teaching scheme (Hours / Week)				Examination Scheme						
		Th	Pract	Total	Credits	Duration in	Max. Marks		Total Marks	Minimum Passing Marks		
								Inter		T	P	
Core 11	Paper 13: Biotechnology, Biostatistics, Ethology, Toxicology and Bioinformatics	4	-	4	4	3	80	20	100	40		
Core 12	Paper 14: Special Group- Paper III Entomology Fish and Fisheries Mammalian Reproductive Physiology (MRP) Animal Physiology Cell Biology Fresh Water Zoology Aquaculture Environmental Biology Sericulture	4	-	4	4	3	80	20	100	40		
Core Elective 2	Paper 15: Special Group- Paper IV Entomology	4	-	4	4	3	80	20	100	40		

	Fisheries Mammalian Reproductive Physiology (MRP) Animal Physiology Cell Biology Fresh Water Zoology Aquaculture Environment al Biology Sericulture										
Foundati on Course 2	Paper 16: Foundation II – Applied Zoology Applied and Industrial Entomology Applied Fresh Water Fisheries Applied Human Physiology	4	-	4	4	3	80	20	100	40	
Pract. Core 11, 12 & Elective 2	Practical 7: Based on t heory of 14 and 15	-	8	8	4	3- 8*	80	20	100		40
Project	Project	-	8	8	4	3- 8*	80	20	100		40
Seminar 4	Seminar 4	2	-	2	1			25	25	10	
	TOTAL	18	16	34	25		480	145	625	170	80

**GONDWANA UNIVERSITY
GADCHIROLI**

SYLLABUS
For
M. Sc.
BOTANY
SEMESTER III & IV

Under
Choice Based Credit System
(CBCS)

(With effect from: 2017-18)

Scheme of teaching and examination under semester pattern Choice Based Credit System (CBCS) for M.Sc. Program in Botany.

Semester III

Core	Theory/ Practical	Teaching Scheme			Credit	Examination Scheme					
		Hrs/week				Duration in hrs.	Max. Marks		Total	Min. Marks	
		Theory	Practical	Total			External	Internal		Theory/ Seminar	Practical
PSCBOTT09	Paper - IX	4	-	4	4	3	80	20	100	40	
PSCBOTT10	Paper - X	4	-	4	4	3	80	20	100	40	
PSDBOTT11	Paper - XI	4	-	4	4	3	80	20	100	40	
PSSBOTT12	Paper - XII	4	-	4	4	3	80	20	100	40	
Pract-V PSCBOTP05	Practical - V	-	8	8	4	6	80	20	100		40
Pract-VI PSDBOTP06	Practical - VI	-	8	8	4	6	80	20	100		40
Seminar - III	Seminar - III	2	-	2	1			25	25	10	
TOTAL		18	16	34	25		480	145	625	170	80

Semester IV

Core	Theory/ Practical	Teaching Scheme			Credit	Examination Scheme					
		Hrs/week				Duration in hrs.	Max. Marks		Total	Min. Marks	
		Theory	Practical	Total			External	Internal		Theory/ Seminar	Practical
PSCBOTT13	Paper - XIII	4	-	4	4	3	80	20	100	40	
PSCBOTT14	Paper - XIV	4	-	4	4	3	80	20	100	40	
PSDBOTT15	Paper - XV	4	-	4	4	3	80	20	100	40	
PSSBOTT16	Paper - XVI	4	-	4	4	3	80	20	100	40	
Pract-VII PSCDBOTP07	Practical - VII	-	8	8	4	6	80	20	100		40
Pract-VIII PSPBOTP08	Practical - VIII	-	8	8	4	6	80	20	100		40
Seminar - IV	Seminar - IV	2	-	2	1			25	25	10	
TOTAL		18	16	34	25		480	145	625	170	80

✓ **Project Work/Dissertation Scheme / Guidelines for the Students, Supervisors and Examiners**

Every student is required to carry out a project work in semester IV. The project can be of following types. A) Experimental Project Work; OR B) Field Based Project Work; OR C) Review writing based Project Work.

✓ ***Experimental Project Work and Field Based Project Work:***

Student can carry out Experimental / Field Based Project Work on a related research topic of the subject /course. It must be an original work and must indicate some degree of experimental work / Field work. On the basis of this work, student must submit the Project Report (typed and properly bound) in two copies at least one month prior to commencement of the final Practical / lab Examination of Semester IV. The project report shall comprise of Introduction, Material and Methods, Results, Discussion, Summary, Conclusion and, References along with the declaration by the candidate that the work is original and not submitted to any University or Organization for award of the degree and certificate by the supervisor and forwarded through Head / Course-coordinator / Director of the Department / Centre or the Principal of the College.

Review writing based Project Work.

Student can carry out review writing Based Project Work on a related topic of the subject / course. It must be a review of topic based on research publications. Student shall refer peer reviewed original research publications and based on findings, write a summary of the same. The pattern of review writing shall be based on reputed reviews published in a standard, peer reviewed journals. On the basis of this work, student must submit the Project Report (typed and properly bound) in two copies at least one month prior to commencement of the final Practical / lab Examination of Semester IV. The project report shall comprise of Abstract, Introduction, detailed review, Discussion, Summary, Conclusion and, References along with the declaration by the candidate that the work is original and not submitted to any University or Organization for award of the degree and certificate by the supervisor and forwarded through Head / Course-coordinator / Director of the Department / Centre or the Principal of the College.

*The supervisors for the Project Work shall be from the following.
A person shall be an approved faculty member in the relevant subject.
OR

Scientists of National Laboratories / Regional Research Laboratories/ Experts from R&D in Industry who are approved by competent authority in such facilities by the Union Government / the State Government / Gondwana University / Other Universities recognized by UGC.

The Project Work will carry total 100 marks and will be evaluated by both external and internal examiner in the respective Department / Center / Affiliated College.

The examiners will evaluate the Project Work/Dissertation taking into account the coverage of subject matter, arrangement and presentation, references, etc.

For written Project work	40	Marks – Evaluated jointly by External & Internal examiner
Oral Presentation	20	Marks – Evaluated jointly by External & Internal examiner
For Viva-Voce	20	Marks – Evaluated by External examiner
Internal Assessment	20	Marks – Evaluated by Internal examiner

GONDWANA UNIVERSITY, GADCHIROLI

M.Sc.-II Semester III, IV (Chemistry)

(Effective from 2017-18) (CBCS)

1. There will be four theory papers in every semester which will carry 80 marks each of 3 hrs. duration.
2. In semester III student will opt for special paper from four options available.
3. In semester IV student will opt for an elective paper out of the five options available.
4. There will be internal assessment of 20 marks per paper per semester.
5. Each paper per semester with total of 100 marks(80+20 i.e. theory+internal assessment) will carry 4 credits.
6. The internal assessment will be based on Attendance, Home assignment, Unit test Terminal test and participation in departmental activities.
7. There will be two practical examinations in semester III i.e. Pract I(special) and Pract II(Elective) of 6-8 hours duration of 80 marks with 4 credits each. Every practical will be having 20 internal practical marks.
8. In semester IV there will be one practical (Special) and another as Project of 80 marks each.
9. In each semester, the student will have to deliver a seminar on any topic relevant to the syllabus / subject encompassing the recent trends and development in that field / subject. This will carry 25 marks per seminar with one credit.
10. So, the total marks allotted to the Chemistry subject per semester is 625 marks:
Theory (320 marks) + Internal assessment (120 marks) + Practicals (160 Marks)+ Seminar (25Marks)= 625marks (total)
11. Each theory paper consists of four units of fifteen hours per unit.

The following syllabi are prescribed on the basis of four hours per week of each paper and nine practical periods per batch per week.

General scheme for distribution of marks in practical examination

Time : 6-8 h (One day Examination) Total Marks : 80)

Exercise-1 - 30 Marks

Exercise-2 - 20 Marks

Viva-Voce -15Marks

Record -15 Marks

Scheme of Examination for M.Sc. (Chemistry) SEM III and IV

Semester III	Internal Assessment	Total Marks	Credits	
PSCHT09: Paper IX (Spectroscopy)		20 Marks	80 Marks	4 Credits
PSCHT10: Paper X Special I -Inorganic/ Organic Chemistry/Physical/Analytical		20 Marks	80 Marks	4 Credits
PSCHT11: Paper XI Special II -Inorganic/ Organic Chemistry/Physical/Analytical		20 Marks	80 Marks	4 Credits
PSCHT12: Paper XII Elective Applied Analytical /Nuclear/ Environmental /Polymer/Medicinal Chemistry)	20 Marks	80 Marks	4 Credits	
PSCHP07: Practical-VII Special Inorganic/ Organic Chemistry/Physical/Analytical		20 Marks	80 Marks	4 Credits
PSCHP08: Practical-VIII Elective - Applied Analytical Nuclear/ Environmental /Polymer/Medicinal)	20 Marks	80 Marks	4 Credits	
PSCHP09: Seminar-III ---- --	25 Marks		1 Credit	
Total:		120 Marks	505 Marks	25 Credits
Semester IV				
PSCHT13: Paper XIII (Spectroscopy)		20 Marks	80 Marks	4 Credits
PSCHT14: Paper XIV Special I -Inorganic/ Organic Chemistry/Physical/Analytical		20 Marks	80 Marks	4 Credits
PSCHT15: Paper XV Special II -Inorganic/ Organic Chemistry/Physical/Analytical		20 Marks	80 Marks	4 Credits
PSCHT16: Paper XVI Elective - Applied Analytical Nuclear/ Environmental / Polymer/Medicinal Chemistry)	20 Marks	80 Marks	4 Credits	
PSCHP10: Practical-X Special (Inorganic / Organic/Physical/Analytical)		20 Marks	80 Marks	4 Credits
PSCHP11: Practical-XI Project		20 Marks	80 Marks	4 Credits
PSChP12: Seminar-IV ----		25 Marks		1 Credit
Total:		120 Marks	505 Marks	25 Credits

B.Com - III (SEMESTER – VI) CBCS

Paper–VI

Project

[Max. Marks: 50]

Guidelines for Project

Instruction:

Towards the end of the Sixth semester of study, a student will be examined in the Course “Project Work”.

- Project Work may be done individually or in groups (Maximum 5 students) in case of bigger projects. However if project is done in groups, each student must be given a responsibility for a distinct module and care should be taken to monitor the progress of individual student.
- The Project Work should be done using the tools covered in B.Com
- The Project Work should be of such a nature that it could prove useful or be relevant from the System-oriented/Application/commercial / management angle.
- The project work will carry 50 marks.
- The external viva-voce examination for Project Work would be held as per the Examination Time Table of the second year of study, by a panel of one external and one Internal examiner.
- Head/Co-ordinator of Computer Dept. must reject any project title which was already carried out in any computer course in the college. He must maintain a Record that lists the projects along with other detail (like Guide, Session, and Number of students working on project etc) that was carried out so far and must be shown to external examiner at the time of examination.

Types of Project

As majority of the students are expected to work out a project in some industry/research and development laboratories/educational institutions/software export companies, it is suggested that the project is to be chosen which should have some direct relevance in day-to-day activities of the candidates in his/her institution. The Applications Areas of project – Financial / Marketing / Database Management System/ Relational Database Management System / E-Commerce / Internet / Manufacturing / web Designing / Hardware and Software interaction based etc.

Project Proposal (Synopsis)

The project proposal should be prepared in consultation with the guide. The Project Guide May alter the sequence as given below depending upon the nature of project.

Guide : The project guide must be a person having minimum Qualification M.C.M / M.Sc. (Computer Science) / MCA. The project proposal should clearly state the objectives and environment of the proposed project to be undertaken. It should have full details in the following form:

- Title of the Project
- Objectives and Hypothesis of the Project
- Project Category (DBMS/RDBMS/OOPS/Web Designing/Internet etc.)
- Tools/Platform, Languages to be used
-

Project Report Formulation.

1. TitlePage.
2. CertificatePage.
3. DeclarationPage.
4. AcknowledgmentPage.
5. Index or ContentPage.
6. Documentation.
 - a) Introduction/Objectives.
 - b) ProjectCategory.
 - c) Software RequirementSpecification.
 - d) SystemDesign.
 - SourceCode.
 - Input screen & OutputScreen.
7. Future Scope of theproject.
8. Bibliography
9. Appendix *(if any)

Guidelines for Project

B.Com. (other than IT)

Instructions:

Towards the end of the Sixth semester of study, a student will be examined in the Course "Project Work".

- a. Project Work may be done individually or in groups (Maximum 10 students) in case of bigger projects. However if project is done in groups, each student must be given a responsibility for a distinct module and care should be taken to monitor the progress of individual student.
- b. The Project Work should be done using the syllabus covered in B.Com.
- c. The Project Work should be of such a nature that it could prove useful or be relevant from the Commerce and Management angle.
- d. The project work will carry 50 marks and would be evaluated internally.
- e. The internal evaluation of the project including the viva-voce would be done by the internal examiner/s authorized by the head of the institute. Project Work would be held as per the Examination Time Table of the year of study and final evaluation would be done by the panel of guide and the internal examiner authorized by the head of the institute
- f. Head/Coordinator of Department must reject any project title which was already carried out in any such course/specialization in the college. He must maintain a Record that lists the projects along with other details (like Guide, Session, and Number of students working on project etc) that was carried out so far and must be shown to internal examiner at the time of examination.

Types of Project

As majority of the students are expected to work out a project in domain of their specialization/educational institutions/trade and business organizations, it is suggested that the project is to be chosen which should have some direct relevance in day-to-day activities of the candidates in his/her institution. The broad Application Areas of project—Finance/ Marketing / Human Resource / E-Commerce / Banking / Insurance etc.

Project Proposal (Synopsis)

The project proposal should be prepared in consultation with the guide. The Project Guide May alter the sequence of contents depending upon the nature of project.

Guide

The project guide must be an approved regular/CHB faculty (as per rules of the university) having minimum Qualification M.Com. The project proposal should clearly state the objectives and environment of the proposed project to be undertaken. It should have full details in the following format:

Project Report Format

1. Title Page.
 2. Certificate Page.
 3. Declaration Page.
 4. Acknowledgment Page.
 5. Index or Content Page.
 6. Documentation: -
 - a) Introduction/Objectives.
 - b) Literature Survey
 - c) Data Collection and Tabulation
 - d) Data Processing and Interpretation
 - e) Conclusions
- Bibliography, Appendix(if any)

Pattern of Question Paper

General Rules and Regulations regarding pattern of question paper for the semester end examination is as given below:

1. There will be four units in each paper.
2. Question paper will consist of five questions, each of 8 marks.
3. Four questions will be based on four units with internal choice.
4. Fifth question will be compulsory with questions from each of the four units having equal weightage and there will be no internal choice.

Bachelor of Commerce**Semester – [VI]****B.Com – [III]****Paper Code:****Paper: Information Technology****Time: 3 Hours]****[Max. Marks: 40****Note:**1) All questions are compulsory and carry equal marks.

2) Draw Neat and Labeled diagram and use supporting data wherever necessary.

3) Avoid vague answers and write specific points/answer related to questions.

Q1 Either (From Unit 1)

a) 4

b) 4

Or

c) 4

d) 4

Q2 Either (From Unit 2)

a) 4

b) 4

Or

c) 4

d) 4

Q3 Either (From Unit 3)

a) 4

b) 4

Or

c) 4

d) 4

Q4 Either (From Unit 4)

a) 4

b) 4

Or

c) 4

d) 4

Q5 Solve all questions

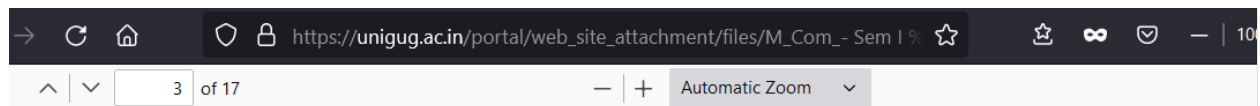
a)(From Unit 1) 2

b) (From Unit 2) 2

c)(From Unit 3) 2

d) (From Unit 4) 2

M COM –II SYLLABUS



Semester-IV

Sr. No.	Subject	Course Scheme			No. of Credits	Examination Scheme							
		L	T	P		Maximum Marks				Minimum Passing Marks			
						ESE	P	IA	Total	ESE	P	IA	Total
1	Advanced Management Accounting	4	-	-	5	80	-	20	100	32	-	8	40
2	International Business Environment	4	-	-	4	80	-	20	100	32	-	8	40
3	Entrepreneurship Development	4	-	-	4	80	-	20	100	32	-	8	40
4	Seminar (Audit Course)				2								
5	Project	4	-	-	12	-	E50 I50	-	100		E20 I20	-	40

E=External Examiner; I- Internal examiner;