

**GOVT. D.B. GIRLS' P.G. (AUTONOMOUS) COLLEGE,
KALIBADI CHOWK, RAIPUR (C.G.)**

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Program Outcomes and Course Outcomes

PROGRAM: B.A.

PROGRAM CODE: BAHIN01, BAENG02, BASAN03, BAMUS04, BAHIS05, BAECO06, BAPOL07, BAPSY08, BAGEO09, BAHSC10, BASOC11, BAKAT12, BAFD13

-----:: PROGRAM OUTCOMES ::-----

PO1	The undergraduate programme in Hindi Literature / English Literature / Economics / Political Science / History / Sociology / Geography / Music / Home Science / Psychology / Kathak Nritya is aimed at providing the students necessary inputs so as to set forth the task of bringing about new and innovative ideas/concepts so that the formulated model curricula in Hindi Literature / English Literature / Economics / Political Science / History / Sociology / Geography / Music / Home Science / Psychology / Kathak Nritya becomes in tune with the changing scenario and incorporate new and rapid advancements and multi-disciplinary skills, societal relevance, global interface, self-sustaining and supportive learning.
PO2	The undergraduate programme in Hindi Literature / English Literature / Economics / Political Science / History / Sociology / Geography / Music / Home Science / Psychology / Kathak Nritya besides teaching the basic concepts of Hindi Literature / English Literature / Economics / Political Science / History / Sociology / Geography / Music / Home Science / Psychology / Kathak Nritya should in addition have broader vision for students so that the students therefore be exposed to societal interface of Hindi Literature / English Literature / Economics / Political Science / History / Sociology / Geography / Music / Home Science / Psychology / Kathak Nritya and the role of Hindi Literature / English Literature / Economics / Political Science / History / Sociology / Geography / Music / Home Science / Psychology / Kathak Nritya in the development of arts and social sciences.
PO3	The students will be able to think critically and take informed decisions after identifying the accuracy and validity of their assumptions and ideas from intellectual, organizational, and personal perspectives.
PO4	The students will be able to communicate effectively through speaking, reading, writing and listening clearly in one Indian language and thereby express themselves to the world by connecting with different ideas, books, people, media and technology
PO5	The students will be able to interact socially and stimulate views, reconcile disagreements and help reach consensual conclusions.
PO6	The students will be able to demonstrate compassionate social concern and act with cognizant awareness of issues to contribute in civic life by volunteering impartially towards national development and thereby deliver effective citizenship.
PO7	The students will be able to ethically recognize different value systems, understand the moral dimensions of individual decisions and accept responsibility for them.
PO8	The students will be able to recognize the issues of environmental perspectives and appreciate sustainable development for long term environmental sustainability.
PO9	The students will be able to engage themselves in life-long self-determining and learning in the comprehensive background of socio-technological changes for continued self-directed and life-long learning

Programme Specific Outcomes (PSO)

PSO1	The students after the completion of this programme will be able to understand and apply the knowledge of प्राचीन हिन्दी काव्य in relevant profession and day today life.
PSO2	The students after the completion of this programme will be able to understand and apply the knowledge of हिन्दी कथा साहित्य in relevant profession and day today life.
PSO3	The students after the completion of this programme will be able to understand and apply the knowledge of अर्वाचीन हिन्दी काव्य in relevant profession and day today life.
PSO4	The students after the completion of this programme will be able to understand and apply the knowledge of हिन्दीनिबंध तथा गद्य विधाएं in relevant profession and day today life.
PSO5	The students after the completion of this programme will be able to understand and apply the knowledge of जनपदीय भाषा साहित्य (छत्तीसगढ़ी) in relevant profession and day today life.
PSO6	The students after the completion of this programme will be able to understand and apply the knowledge of हिन्दी भाषा-साहित्य का इतिहास तथा काव्यांग विवेचन in relevant profession and day today life.
PSO7	The students after the completion of this programme will be able to understand and apply the knowledge of Literature in English From 1550-1750 A.D in relevant profession and day today life.
PSO8	The students after the completion of this programme will be able to understand and apply the knowledge of Literature in English From 1750-1900 A.D in relevant profession and day today life.
PSO9	The students after the completion of this programme will be able to understand and apply the knowledge of Modern English Literatures – I in relevant profession and day today life.
PSO10	The students after the completion of this programme will be able to understand and apply the knowledge of Modern English Literatures – II in relevant profession and day today life.
PSO11	The students after the completion of this programme will be able to understand and apply the knowledge of Indian Writing in English in relevant profession and day today life.
PSO12	The students after the completion of this programme will be able to understand and apply the knowledge of American Literature in relevant profession and day today life.
PSO13	The students after the completion of this programme will be able to understand and apply the knowledge of Micro Economics in relevant profession and day today life.
PSO14	The students after the completion of this programme will be able to understand and apply the knowledge of Indian Economy in relevant profession and day today life.
PSO15	The students after the completion of this programme will be able to understand and apply the knowledge of Macro Economics in relevant profession and day today life.
PSO16	The students after the completion of this programme will be able to understand and apply the knowledge of Money, Banking and Public Finance in relevant profession and day today life.
PSO17	The students after the completion of this programme will be able to understand and apply the knowledge of Development and Environmental Economics in relevant profession and day today life.
PSO18	The students after the completion of this programme will be able to understand and apply the knowledge of Statistical in relevant profession and day today life.
PSO19	The students after the completion of this programme will be able to understand and apply the knowledge of Political Theory in relevant profession and day today life.
PSO20	The students after the completion of this programme will be able to understand and apply the knowledge of Indian Government and Politics in relevant profession and day today life.
PSO21	The students after the completion of this programme will be able to understand and apply the knowledge of Western Political Thought in relevant profession and day today life.

PSO22	The students after the completion of this programme will be able to understand and apply the fundamentals of Comparative Politics and Government in relevant profession and day today life.
PSO23	The students after the completion of this programme will be able to understand and apply the knowledge of International Politics in relevant profession and day today life.
PSO24	The students after the completion of this programme will be able to understand and apply the knowledge of Public Administration in relevant profession and day today life.
PSO25	The students after the completion of this programme will be able to understand and apply the knowledge of History of India from the Beginning to 1206 A.D in relevant profession and day today life.
PSO26	The students after the completion of this programme will be able to understand and apply the knowledge of World History from 1453 to 1789 A.D in relevant profession and day today life.
PSO27	The students after the completion of this programme will be able to understand and apply the knowledge of History of India from 1206 to 1761 A.D in relevant profession and day today life.
PSO28	The students after the completion of this programme will be able to understand and apply the knowledge of World History from 1789 to 1871 A.D. in relevant profession and day today life.
PSO29	The students after the completion of this programme will be able to understand and apply the knowledge of History of India from 1761 to 1950 A.D. in relevant profession and day today life.
PSO30	The students after the completion of this programme will be able to understand and apply the knowledge of World History from 1871 to 1945 A.D. in relevant profession and day today life.
PSO31	The students after the completion of this programme will be able to understand and apply the knowledge of Introduction to Sociology in relevant profession and day today life.
PSO32	The students after the completion of this programme will be able to understand and apply the knowledge of Contemporary Indian Society in relevant profession and day today life.
PSO33	The students after the completion of this programme will be able to understand and apply the knowledge of Society in India in relevant profession and day today life.
PSO34	The students after the completion of this programme will be able to understand and apply the knowledge of Crime and Society in relevant profession and day today life.
PSO35	The students after the completion of this programme will be able to understand and apply the knowledge of Sociology of Tribal Society in relevant profession and day today life.
PSO36	The students after the completion of this programme will be able to understand and apply the knowledge of Social Research Methods in relevant profession and day today life.
PSO37	The students after the completion of this programme will be able to understand and apply the knowledge of Physical Geography - Elements of Geomorphology in relevant profession and day today life.
PSO38	The students after the completion of this programme will be able to understand and apply the knowledge of Introduction to Geography and Human Geography in relevant profession and day today life.
PSO39	The students after the completion of this programme will be able to understand and apply the knowledge of Physical Geography - Climatology and Oceanography in relevant profession and day today life.
PSO40	The students after the completion of this programme will be able to understand and apply the knowledge of Regional Geography with Special Reference to North America in relevant profession and day today life..
PSO41	The students after the completion of this programme will be able to understand and apply the knowledge of Geography - Resources and Environment in relevant profession and day today life.

PSO42	The students after the completion of this programme will be able to understand and apply the knowledge of Geography of India (with special reference to Chhattisgarh) in relevant profession and day today life.
PSO43	The students after the completion of this programme will be able to understand and apply the knowledge of Theory of Indian Music- in relevant profession and day today life.
PSO44	The students after the completion of this programme will be able to understand and apply the knowledge of Theory of Indian Music-II in relevant profession and day today life.
PSO45	The students after the completion of this programme will be able to understand and apply the knowledge of Theory of Indian Music, Vocal / Instrumental – I in relevant profession and day today life.
PSO46	The students after the completion of this programme will be able to understand and apply the knowledge of Theory of Indian Music, Vocal / Instrumental – II in relevant profession and day today life.
PSO47	The students after the completion of this programme will be able to understand and apply the knowledge of Theory of Indian Music, Vocal / Instrumental – III in relevant profession and day today life.
PSO48	The students after the completion of this programme will be able to understand and apply the knowledge of Theory of Indian Music, Vocal / Instrumental – IV in relevant profession and day today life.
PSO49	The students after the completion of this programme will be able to understand and apply the knowledge of Anatomy, Physiology & Hygiene in relevant profession and day today life.
PSO50	The students after the completion of this programme will be able to understand and apply the knowledge of Home Science - Extension Education in relevant profession and day today life.
PSO51	The students after the completion of this programme will be able to understand and apply the knowledge of Fabric & Cloth Science in relevant profession and day today life.
PSO52	The students after the completion of this programme will be able to understand and apply the knowledge of Family Resource Management.
PSO53	The students after the completion of this programme will be able to understand and apply the knowledge of Home Science - Human Development in relevant profession and day today life.
PSO54	The students after the completion of this programme will be able to understand and apply the knowledge of Food & Nutrition Science in relevant profession and day today life.
PSO55	Understanding of Behaviour, mental processes and environment. Cognitive and non-cognitive processes. Methods of understanding behaviour
PSO56	Awareness about abnormal behaviour, symptoms, identification and types of abnormal behaviour. Therapy and stress management
PSO57	Conduct experiments, administer tests and maintain a journal with written reports of practicals conducted in the laboratory (including , methodology, treatment of results and discussion for each practical experiment)
PSO58	knowing about social behaviours- attitude, prejudice, stereotype, interpersonal relationships and prosaically behaviours. Formation of groups and leaderships.
PSO59	skill development to assess human behaviours. Construction of psychological tools to measure behaviours .
PSO60	conduct experiments, administer tests and field study of sociometry
PSO61	statistical analysis of human behaviours, understanding of variables and data , uses of computer applications in the analysis of human behaviours.
PSO62	understanding the development stages of human beings , process of socialization and old age issues
PSO63	conduct experiments, administer tests and project
PSO64	The students after the completion of this programme will be able to understand and apply the knowledge of Kathak-I. in relevant profession and day today life.

PSO65	The students after the completion of this programme will be able to understand and apply the knowledge of Kathak Nritya -II in relevant profession and day today life.
PSO66	The students after the completion of this programme will be able to understand and apply the knowledge of Kathak Nritya -III in relevant profession and day today life.
PSO67	The students after the completion of this programme will be able to understand and apply the knowledge of Kathak Nritya -IV in relevant profession and day today life.
PSO68	The students after the completion of this programme will be able to understand and apply the knowledge of Kathak Nritya -V in relevant profession and day today life.
PSO69	The students after the completion of this programme will be able to understand and apply the knowledge of Kathak Nritya -VI in relevant profession and day today life.

Course 1: प्राचीन हिन्दी काव्य

CO1 The students after the completion of this course will be able to contemplate and comprehend कबीर-कांतिकुमार जैन

CO2. The students after the completion of this course will be able to contemplate and comprehend जायसी-संक्षिप्तपद्यावत-श्यामसुंदरदास नागमतीवियोगवर्णन

CO3. The students after the completion of this course will be able to contemplate and comprehend सूर भ्रमर गीतसार- सं. आचार्यरामचन्द्र

CO4. The students after the completion of this course will be able to contemplate and comprehend तुलसी- 'रामचरितमानस'

CO5. The students after the completion of this course will be able to contemplate and comprehend घनानन्द (घनानन्द-सर्णविश्वनाथप्रसादमिश्रद्व)

CO6. The students after the completion of this course will be able to contemplate and comprehend विद्यापति.

CO7. The students after the completion of this course will be able to contemplate and comprehend रहीम.

CO8. The students after the completion of this course will be able to contemplate and comprehend रसखान

Course 2: हिन्दी कथा साहित्य

CO1. The students after the completion of this course will be able to contemplate and comprehend प्रेमचंद गबन

CO2. The students after the completion of this course will be able to contemplate and comprehend प्रेमचंद-कफन

CO3. The students after the completion of this course will be able to contemplate and comprehend जयशंकरप्रसाद-आकाशदीप

CO4. The students after the completion of this course will be able to contemplate and comprehend फणीशचandraधरेणु-ठेस

CO5. The students after the completion of this course will be able to contemplate and comprehend -मलवेकामालिक

CO6. The students after the completion of this course will be able to contemplate and comprehend भीष्मसाहनी-चीफकीदावत

CO7. The students after the completion of this course will be able to contemplate and comprehend राजेन्द्र यादव-बिरादरीबाहर

CO8. The students after the completion of this course will be able to contemplate and comprehend रागेय राघव-गदल

CO9. The students after the completion of this course will be able to contemplate and comprehend 1 उपेन्द्रनाथअशक, 2. बालशौरिरेड्डी 3. शिवानी

Course 3: अर्वाचीन हिन्दी काव्य

CO1. The students after the completion of this course will be able to contemplate and comprehend मैथिलीशरणगुप्त-भारत-भारती की कविताएं

CO2. The students after the completion of this course will be able to contemplate and comprehend सूर्यकांत त्रिपाठी निराली-सखि बसन्त आया,वर दे, वीणावादिनीवर दे,हिन्दी के सुमनों के प्रति पत्र,तोड़ती-पत्थर,राजे ने अपनी रखवाली की।

CO3. The students after the completion of this course will be able to contemplate and comprehend सुमित्रानंदनपंत-बादल,परिवर्तन,खोलता इधरजन्मला,चन,आजकादुख कलकाआल्हाद,ताज,झंझा में नीम,भारतमाता।

CO4. The students after the completion of this course will be able to contemplate and comprehend माखनलाल चतुर्वेदी-बलिपंथीसे,सांझ और और ढोलक की थापें,मैंबेचरहीहूँ, दही, उलाहना,निःशस्त्र सेनानी।

CO5. The students after the completion of this course will be able to contemplate and comprehend 1-हीवात्स्यायनअज्ञेय -सबेरउठातो धूप खिलीथी,सामाग्रीकानैवेद्य दान,घर,चंदनीजीलो,दूर्वाचल।

CO6. The students after the completion of this course will be able to contemplate and comprehend अयोध्या सिंह उपाध्याय "हरिऔध",सुभद्राकुमारीचौहान,श्रीकांतवर्मा।

Course 4: हिन्दीनिबंध तथा गद्य विद्याएं

CO1. The students after the completion of this course will be able to contemplate and comprehend नाटक-अंधेरीनगरी-भारतेन्दुहरिश्चन्द्र

CO2. The students after the completion of this course will be able to contemplate and comprehend निबंध क्रोध -आचार्यरामचन्द्रशुक्ल,बसन्त-डॉ. हजारीप्रसाद द्विवेदी,उस अमराई ने राम-रामकहीहै-डॉ विद्यानिवासमिश्र,काव्येषुनाट्यम् रम्यम् -बाबूगुलाबराय,बेईमानी की परत-हरिश्चंद्रकरपरसाई।

CO3. The students after the completion of this course will be able to contemplate and comprehend ,काकी-औरगंजेब की

आखिरी रात—डॉ. रामकुमार वर्मा, स्ट्राईक—भुनेश्वर, एक दिन— लक्ष्मीनारायण मिश्र, दसहजार—उदयशंकर भट्ट, मम्मीठकुराईन—डॉ. लक्ष्मीनारायण लाल

CO4. The students after the completion of this course will be able to contemplate and comprehend राहुल सांकृत्यायन, महादेवी वर्मा, हबीब तनवीर

Course 5: जनपदीय भाषा साहित्य छत्तीसगढ़

CO1. The students after the completion of this course will be able to contemplate and comprehend रचनाएं—प्राचीनकविसंत धर्मदास—गुरु पड़यालागोंनाम लखादीजोहो, नैन आगे ख्याल घनेरा, भजन करौभाईरे, अइसनतनपाय के ।

CO2. The students after the completion of this course will be able to contemplate and comprehend लखनलाल गुप्तका गद्य—सेनपान

CO3. The students after the completion of this course will be able to contemplate and comprehend अर्वाचीन रचनाकार डॉ. सत्यभामा आडिल रचित गद्य—सीख सीख के गोठ

CO4. The students after the completion of this course will be able to contemplate and comprehend डॉ विनय पाठक की कविताएं—तंय उठथससुरुजउथे, एक किसिम के नियाव

CO5. The students after the completion of this course will be able to contemplate and comprehend मुकुन्दकौशिल—छत्तीसगढ़

CO6. The students after the completion of this course will be able to contemplate and comprehend सुन्दरलाल शर्मा, कविलनाथकशियप, रामचन्द्रदेशामुख (रंगकर्मी)

Course 6: हिन्दीभाषा—साहित्य का इतिहास तथा काव्या 'गविवेचन

CO1. The students after the completion of this course will be able to contemplate and comprehend हिन्दी भाषाकास्वरूपविकास—हिन्दी करउत्पत्ति, हिन्दी की मूलआकरभाषाएं तथा विभिन्न विभाषाओं का विकास । हिन्दी भाषा के विभिन्न रूप—बोलचाल की भाषा, रचनात्मक भाषा, राष्ट्र भाषा, राजभाषा, सम्पर्कभाषा, संचारभाषा

CO2. The students after the completion of this course will be able to contemplate and comprehend हिन्दी का शब्दभण्डार—तत्सम, तद्भव, देशज, आगतशब्दावली ।

CO3. The students after the completion of this course will be able to contemplate and comprehend हिन्दी साहित्य का इतिहास :—आदिकाल, पूर्व मध्यकाल, उत्तर मध्यकाल और आधुनिक काल की सामाजिक, सांस्कृतिक पृष्ठभूमि, प्रमुख युग प्रवृत्तियाँ, विशिष्ट रचनाकार और उनकी प्रतिनिधि कृतियाँ, साहित्यिक विशेषताएं ।

CO4. The students after the completion of this course will be able to contemplate and comprehend काव्यांग—काव्य कास्वरूप एवं प्रयोजन। रस के विभिन्न भेद, विभिन्न अंश गह, विभावादितथा उदाहरण। दोहा, सोरठा, चौपाई, कुण्डलियाँ, सवैया। शब्दालंकार—अनुप्रास, यमक, श्लेष, वक्रोक्ति, पुनरुक्तिप्रकाश। अर्थालंकार—उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, भ्रांतिमान।

CO5. The students after the completion of this course will be able to contemplate and comprehend राजभाषा हिन्दी—मलिकमोहम्मद

CO6. The students after the completion of this course will be able to contemplate and comprehend हिन्दी भाषा—डॉ. भोलानाथ तिवारी ।

Course 7: Literature in English from 1550-1750 A.D.

CO1. The students after the completion of this course will be able to demonstrate knowledge of the major texts and traditions of English literature.

CO2. The students after the completion of this course will be able to contemplate and comprehend different periods of literature and important authors like Shakespeare, Milton, etc of English literature.

Course 8: Literature in English from 1750-1900 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and become familiar with representative literary and cultural texts with in a significant number of historical and cultural contexts.

CO2. The students after the completion of this course will be able to contemplate and comprehend and form an idea about the various stages in the development of English literature.

Course 9: Modern English Literatures - I

CO1. The students after the completion of this course will be able to contemplate and comprehend and develop critical thinking through long and short fictions of English literature.

CO2. The students after the completion of this course will be able to write and appreciate different types of prose of English literature.

Course 10: Modern English Literatures – II

CO1. The students after the completion of this course will be able to familiarize with the plays of master dramatists and will have developed the ability to appreciate and evaluate different types of plays of English literature.

CO2. The students after the completion of this course will be able to appreciate and evaluate different types of plays of English literature.

Course 11: Indian Writing in English

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the various phases of the evolution of Indian writing in English.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the thematic concern, genres and trends of Indian writing in English.

Course 12: American Literature

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the cultural themes, literary periods and key artistic features of American Literature.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the various aspects of American Society through a critical examination of the literary texts representing different periods and culture.

Course 13: Micro Economics

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the definitions, nature and scope of economics.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the theory of production and cost.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the market structure.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize factor pricing.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize welfare economics.

Course 14: Indian Economy

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize pre and post independent Indian economy.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in population and human development.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in agriculture

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in industry.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in foreign external sector.

Course 15: Macro Economics

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize national income & social accounts.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in consumption function.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the nature and characteristics of trade cycle.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in international trade.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize the functions of IMF, World Bank and WTO.

Course 16: Money, Banking and Public Finance

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize basic concepts of money.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the role of economics in commercial banking.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the meaning and scope of public finance.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the sources of public revenue and taxation.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize public debt and financial administration.

Course 17: Development and Environmental Economics

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize economic growth and development.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the relationship between economics and population problem & growth.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize Harrods and Domar growth model.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize there lationship between economics and environment & ecology.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize the concept of intellectual capital.

Course 18: Statistical Methods

CO1. The students after the completion of this course will be able to comprehend and apply statistical methods in economics.

CO2. The students after the completion of this course will be able to comprehend and apply the measurement of central tendency in economics.

CO3. The students after the completion of this course will be able to comprehend and apply the methods & tools of dispersion in economics.

CO4. The students after the completion of this course will be able to comprehend and apply coefficient of correlation in economics.

CO5. The students after the completion of this course will be able to comprehend and apply index number and measurement of trend in economics.

Course 19: Political Theory

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the nature and scope of political theory.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the concept of state, nation and civil society.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the meaning of organs of government and theory of separation of power.

Course 20: Indian Government and Politics

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the salient features in making of Indian Constitution.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize and appreciate the fundamental rights and duties and the directive principle of state policy.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize and evaluate the evolution, functioning and consequences of political parties in India.

Course 21: Western Political Thought

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the nature, methods and significance of political thought.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize and appreciate various social and political ideas of political thinkers.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize and demonstrate the knowledge of political thinkers and political concepts.

Course 22: Comparative Politics and Government

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize and critically assess presidential and parliamentary system.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the difference between federal and unitary systems of government.

Course 23: International Politics

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize and critically assess the international political system.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the relations of India with neighboring countries.

Course 24: Public Administration

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize and critically assess the administrative system of the nation.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize various concepts in public administration.

Course 25: History of India from the Beginning to 1206 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize India's geographical structure, historical and archeological sources, Stone Age, Harappa civilization.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize Vedic era, Mahajanapada era, Jainism, Buddhism, Alexander's Invasion, rise of Magadha, Maurya dynasty.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize Chola dynasty, Pandian dynasty, Gupta dynasty, Pallava dynasty, Chalukya dynasty, Vardhan dynasty.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize historical relation between India & Srilanka, invasions by Mohammad Bin Kasim, Mohammad Ghazhvani, Mohammad Gauri, caste system, societal status of women – marriage system, sati system, pardah system, devdasi system, dasa system.

CO5. Students will be able to demonstrate a breadth of training across historical time and space. Students will be able to develop an in-depth understanding of a field, theme or region.

CO6. Students will be able to demonstrate an historical awareness of the diversity of the human experience across time and space. Students will be able to apply, assess and debate the major historical schools of thought, methodology and types of sources that historians use to make original arguments. Students will acquire basic historical research skills, and the effective use of libraries, archives, and databases.

CO7. Students will learn to organize and express their thoughts clearly and coherently both in writing and orally. Students will be able to formulate historical arguments and communicate those arguments in clear and persuasive prose.

Course 26: World History from 1453 to 1789 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize end of feudalism, Renaissance, religious reforms, rise of nation states – England, France, Spain, Russia, division of Poland.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize modern western world – revolution in commerce & trade - Capitalism, industrial revolution.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize beginning of colonialism, civil war in England, glorious revolution, rule of Louis 14th, America's war of Independence, French revolution and national assembly.

Course 27: History of India from 1206 to 1761 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize Sultanate rule, Slave dynasty, Khilji dynasty, Tughlaq dynasty, Taimur's Invasion.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize Babur's Mughal dynasty, Sher Shah Suri administration, policies of Akbar to Aurangzeb, Mughal administration.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize socio-economic aspects of Sultanate era, socio-economic aspects of Mughal era, religious and cultural aspects of medieval era – Bhakti movement, Sufism, art & establishment in Sultanate era, art & establishment in Mughal era, education & literature in Sultanate era, education & literature in Mughal era.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize Vijaya Nagar Kingdom – Raja Krishnadeva Raya, Chhatrapati Shivaji kingdom, Battle of Panipat.

Course 28: World History from 1789 to 1871 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize French revolution – National convention, Napoleon Bonaparte – rise & fall.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize Vienna Congress – combined system of Europe, Conservatism.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize revolutions of 1830 & 1848, Industrial revolution, England's Liberalism.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize reforms of 1832 & 1867, achievements of Napoleon III, rise of east, Greece's war of Independence, battle of Creamia, Russia

– Czar Alexander II, unification of Italy, unification of Germany.

Course 29: History of India from 1761 to 1950 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize expansion of British rule – war & diplomacy – battle of Karnataka, Plasi, Buxor, alliance treaties.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize reforms in British rule, Capitalism – fall of industries & trade, fall of Agriculture and farmer's revolution, land revenue system.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize Indian renaissance – Brahma samaj, Aryasamaj, Ram Krishna mission, Theosophical society, Aligarh movement.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize progress of western education and Press, social classification of farmers, labors, middle class and women, rise of Nationalism and revolution of 1857.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize Indian National Congress – Moderates & Extremists, Gandhi's freedom movement, Communalism – rise & progress, Subhash Chandra Bose & Azad Hind Fauj, India's Constitutional development – 1919-1935 – Federal system – Provincial autonomy, India's Independence and Indian Constitution.

Course 30: World History from 1871 to 1945 A.D.

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the third republic of France, Bismarck – foreign policy, William II – foreign policy, division of Africa.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize modernization of Japan, Japan-Russia war, Chinese revolution.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize Young Turk movement, Balkan war, World War – I.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize Russian revolution-1917, Warsaw Treaty.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize Italy's Fascism – Mussolini, Germany's Nazism – Hitler, Japan's Imperialism – Tajo, World War – II.

CO6. The students after the completion of this course will be able to contemplate and comprehend and recognize United Nations Organization (UNO) – establishment, composition, achievements.

Course 31: Introduction to Sociology

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the nature and scope of sociology.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the basic concepts of society, community, institution, association etc.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize different social groups.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize various social processes.

Course 32: Contemporary Indian Society

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the classical view about Indian Society and Varna Vyavastha.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the structure and composition of Indian society.

Course 33: Society in India

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize various social problems like Casteism, Regionalism, and Communalism etc.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize various social problems like Dowry, Domestic Violence, Divorce etc.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize basic Institutions of society.

Course 34: Crime and Society

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize social structure and anomalies.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize

meanings, causes, consequences and remedies of Terrorism.

Course 35: Sociology of Tribal Society

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize classification of tribal people.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize socio cultural profile of tribe.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize various tribal problems.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize various tribal movements.

Course 36: Social Research Methods

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize & apply social survey and research.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize & apply research design.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize & apply techniques of data collection and statistics.

Course 37: Physical Geography - Elements of Geomorphology

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the effect of rotation and revolution the earth.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the interior structure of the earth

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize theory regarding of origin of continents and oceans.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the formation of rocks.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize the work of internal and external forces and their associated land forms.

Course 38: Introduction to Geography and Human Geography

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the relationship of man and environment.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the races of man kinds.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the modes of life of pigmy, Bushman, Eskimos, Masai, Gond and Nagar.

Course 39: Physical Geography - Climatology and Oceanography

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the weather and climate.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the atmospheric moisture.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the air masses and fronts.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the surface configuration of the ocean floor.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize the circulation of oceanic water.

CO6. The students after the completion of this course will be able to contemplate and comprehend and recognize the marine deposits, coral reefs.

Course 40: Regional Geography with Special Reference to North America

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the regional concept, bases of regionalization.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the structure, relief, climate and soils of North America.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the mineral and energy resources, Forests and North America.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the Agriculture belts, line stock and dairy forming in North America.

CO5. The students after the completion of this course will be able to contemplate and comprehend and recognize the Industries and Regions of North America.

Course 41: Geography - Resources and Environment

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the resources: meaning, nature and components.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the distribution and utilization of resources.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the man environment interrelations.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the environmental conservation and management.

Course 42: Geography of India (with special reference to Chhattisgarh)

CO1. The students after the completion of this course will be able to contemplate and comprehend and recognize the geo-physical features of India.

CO2. The students after the completion of this course will be able to contemplate and comprehend and recognize the drainage, climate of India.

CO3. The students after the completion of this course will be able to contemplate and comprehend and recognize the resources, geo-cultural features of India.

CO4. The students after the completion of this course will be able to contemplate and comprehend and recognize the geo-physical features, geo-cultural features of Chhattisgarh.

Course 43: Theory of Music Vocal

CO1. The students are aware of Naad, Shruti, Vaadi, Samvaadi, Alankar, Aalap, Taan, Rag, Jaati.

CO2. - Students has knowledge about Khyal, Dhrupad, Dhamar, Tarana, Geet, Gazal, Bhajan.

CO3.- Learn about Life Sketch and Musical Contribution of "Amir Khusaro", "Swami Haridas", "Tansen", "Nayak Baiju".

CO4.- Learn the basics of merits and demerits of a Singer.

CO5. - Students learn the basic knowledge of all Raags.

Course 44: Theory of Music Vocal

CO1. Students understand the characteristics of Hindustani and Karnataka Sangeet system.

CO2. Students know about Notation system by Pt. Vishnu Narayan Bhatkhande and Pt. Vishnu Digambar in details.

CO3- Students know the Poorvang, Uttarang and Sandhi Prakash Raags.

CO4 - Students are aware of Notation system of Bandish.

CO5- Learn about Definition of Taal, Lay, and Dugun of Taal.

Course 45: Theory of Music Vocal

CO1. I- Learn about Life Sketch and Musical Contribution of "Achary Bharat", "Venkat Makhi", "Sadarang-Adarang, etc".

CO2. clear understanding of Dugun and Chaugun of Taal.

CO3- Knowledge about types of all Instruments.

CO4 -familiarize with the South Taal System and Symbol of Taals.

CO5 -- Comparative study of North and South Taal System.

Course 46: Theory of Music Vocal

CO1. Knowledge of Dhvani Tarang.

CO2. Learn the history of Indian Classical Music.

CO3- Study of various Musical styles and their impact on Vedic period of Indian Music in detail.

CO4. Students know about many Folk Geet.

CO5. Basic knowledge of Merits of Good Listeners

Course 47: Theory of Music Vocal

CO1- Students will be able to understand Shruti, Gram, Jaati, Kaku Bhed.

CO2- Capable to understand Harmony and Melody of Music.

CO3-- Students know the Khyal Gayaki of Gharanas.

CO4- Students know the definition and type of Gram.

CO5- Students understand the Shudha and Vikrit Swar.

Course 48- Theory of Music Vocal

CO1- Learn about Indian Classical Music and Folk Music.

CO2-General knowledge of CG Folk Geets.

CO3- Learn about Life Sketch and Musical Contribution of "Omkar Nath Thakur", "Matang", "Shri Nivas", "Somnath", "Haddu-Hassu Khan".

CO4- Students know importance of "Kandh Swar Sanskar".

CO5-- Students understand various Musical styles and their impact on Modern Classical Music in detail.

Course 49: Anatomy, Physiology & Hygiene CO1. The students after the completion of this course will be able to describe anatomical structure & physiological functions of cell, tissue and their functions skeletal system - Types of bones, classification general structure & functions of bones, Muscular system - General structure, types and function. CO2. The students after the completion of this course will be able to describe anatomical structure & physiological functions of Circulatory system - General structure of organs and functions, composition of blood & function, Respiratory system - General structure of organs and functions.

CO3. The students after the completion of this course will be able to describe anatomical structure & physiological functions of Digestive system - General introduction of Nutrients, Liver and spleen organs of digestion their general structure and function, Excretory system- organs of excretion, Kidney & skin - structure & function.

CO4. The students after the completion of this course will be able to describe anatomical structure & physiological functions of Nervous system - Central nervous system structure and function, Senses and Sensory organs - ear and eye structure & function.

CO5. The students after the completion of this course will be able to describe and apply principles of Hygiene - Personal Hygiene, social Hygiene, Environmental and Industrial Hygiene, Water - its importance and purification, Air - its importance and purification, First aid home nursing - Principles, qualities of nurse, responsibilities, selection of sick room, care of the patient, some common accidents and their aid, poison, bleeding, burns and scalds, fracture sprain, dislocation.

Course 50: Home Science - Extension Education

CO1. The students after the completion of this course will be able to describe, recognize and apply in Home Science - Concepts, goals and Areas of Home Science & their inter relationship with extension, Principles and methods of home science extension education general concepts of extension work, Objectives of extension education in qualities of extension workers, extension education process.

CO2. The students after the completion of this course will be able to describe, recognize and apply principles of community development organization and function of community development, Role of home scientists in community development, programmes of extension education for community, programmes of community development at central, state, district, block and village level, Family planning programme, Community problems, child marriage, Dowry system, pardapratha, rural indebtedness unemployment.

CO3. The students after the completion of this course will be able to describe, recognize and apply methods of learning - Discussion, demonstration, observation and their application to home science teaching, Extension Methods - their scope advantages and application, Scope and use in Home Science teaching, Extension Methods - their scope advantages and application.

CO4. The students after the completion of this course will be able to describe, recognize and apply in attitude towards Home Science, Motivation towards Home Science, Application of Home Science towards improvement in family living, Job opportunities in Home Science, National and International agencies and their collaboration with Home Science, Official organization Home Science Association of India, W.H.O. FAG, CARE, ICAR, ICDS, ICSSR, ICMR, IRDP, Adult education.

CO5. The students after the completion of this course will be able to describe, recognize and apply basic concept of curriculum planning, components of curriculum planning, implementation, evaluation and improvement required in the existing system of H.Sc. education policy and its relevance to H.Sc. Programme planning-concept, principles, objectives and steps in programme planning.

Course 51: Fabric & Cloth Science

CO1. The students after the completion of this course will be able to describe, recognize and apply in fabric science and

its testing, cloth weaving and its styling.

CO2. The students after the completion of this course will be able to describe, recognize and apply textile ornamentation, selection of dyes and fabrics.

CO3. The students after the completion of this course will be able to describe, recognize and apply textile & cloth printing and its types, tie & dye methods.

CO4. The students after the completion of this course will be able to describe, recognize and apply laundry methods for various fabrics and cloth materials, stain removal.

CO5. The students after the completion of this course will be able to describe, recognize and apply dress designing, fashion designing according to personality types, types of dress designing & ornamentation.

Course 52: Family Resource Management

CO1. The students after the completion of this course will be able to describe, recognize and apply in Home management process, role of home-maker, decision making.

CO2. The students after the completion of this course will be able to describe, recognize and apply in Home decoration, interior designing, selection of colors for home, furniture selection, flower decoration.

CO3. The students after the completion of this course will be able to describe, recognize and apply in family resource management, time management, man-power management, income management, family income and budget, family savings, standard of living, account / book keeping.

CO4. The students after the completion of this course will be able to describe, recognize and apply in Kitchen planning & management, modernization of kitchen and kitchen space, use of alternative energy sources like solar, water distribution system, ventilation, lighting and storage.

CO5. The students after the completion of this course will be able to describe, recognize and apply in simplification of work, process charts, tools and methods for saving time, energy, labor and money.

Course 53: Home Science - Human Development

CO1. The students after the completion of this course will be able to describe, recognize and apply in child growth and development, different aspects of growth, principles of development, factors affecting child development, heredity and environment.

CO2. The students after the completion of this course will be able to describe, recognize and apply in stages of development - Physiology of pregnancy, Prenatal - Reproductive system, Prenatal development, Infancy, Early infancy, Babyhood, Childhood, Early childhood, Late childhood, Adolescence, Early adolescence, Late adolescence, prenatal growth and development - Sources of studying prenatal life, Stages of growth prenatal and development, Factors affecting prenatal and development growth, Mother's food, Health of mother, Narcotics, Age of parents, Effect of season, Emotion of mother.

CO3. The students after the completion of this course will be able to describe, recognize and apply in effect of normal and caesarean delivery, Adjustment to new environment – Temperature, Respiration, Food consumption, Excretion, Physical development of infant-Physical proportion, Height, Weight, Pulse rate, Respiration rate, Bodytemperature, Frequency of hunger, Sensory development of infant – Light, Sound, Taste, Smell, Skin sensitivity, Motor activity of infants -Mass activities, Specific activities -Reflex activities, Advantages of reflex action, Emotions of infants -Types of emotions, Significance of emotions, Characteristics of infant behavior– Dependency, Individual difference, Adjustment.

CO4. The students after the completion of this course will be able to describe, recognize and apply in childhood : Adolescence, Characteristics of this stage, Factors affecting growth and development during childhood and adolescence, Physical growth height, weight, body proportion, teeth, Growth and development of internal organs – Nervous, Mental, Circulatory system, Digestive system, Respiratory system, Tissues and muscles systems, Development of motor abilities, Types of motor abilities, importance and characteristics of motor abilities in childhood, Development of motor skills, Types of motor skills, Delayed motor development.

CO5. The students after the completion of this course will be able to describe, recognize and apply in development of emotional behavior-characteristics special emotions (affection, anger, fear, jealousy and worries) factors affecting emotional behavior, Social developments stages - during infancy, nursery school period, elementary school period, Factor affecting social development, Development of intelligence - Types according to Thorndike, theories regarding intelligence.

CO6. The students after the completion of this course will be able to describe, recognize and apply in Play, work and play, theories of play, characteristics of children's play, types of play, factors effecting play and importance of play, Habits : Definition, Functions performed by habits, Habits and learning, Laws of habit formation-identical to laws of learning, Habit formation, Principles of habit formation, Rules for habit formation, Children delinquency-Types causes and remedial measures.

Course 54: Food & Nutrition Science

CO1. The students after the completion of this course will be able to describe, recognize and apply the principles and

components of nutrition like carbohydrates, lipids, proteins, minerals, vitamins & water and their sources, RDA, metabolism and deficiency.

CO2. The students after the completion of this course will be able to describe, recognize and apply the principles and components of foods like food groups, cereals & grains, pulses & legumes, milk & dairy products, vegetables & fruits, egg, meat, fish & poultry, sugar, jiggery & honey, beverages & spices and their types, composition, nutrition, cooking and processing.

CO3. The students after the completion of this course will be able to describe, recognize and apply the principles and components of food preservation, food spoilage, food toxicity, food adulteration, food hygiene and food storage.

CO4. The students after the completion of this course will be able to describe, recognize and apply the principles and components of dietary management & menu planning, RDA, economics of menu planning, infant nutrition, pediatric nutrition, child nutrition, student & youth nutrition, nutrition during pregnancy and lactation, geriatric nutrition.

CO5. The students after the completion of this course will be able to describe, recognize and apply the principles and components of therapeutic nutrition, therapeutic nutrition for - diabetics, under-weight & over-weight, anemic, vitamin deficiency, protein energy malnutrition, liver diseases, peptic ulcer, indigestion, diarrhea, constipation, hypertension.

Course 55: Basic Psychological Process

CO1. The students after the completion of this course will be able to describe, recognize and apply the basic human behavior like thinking, learning, sensations, perception, attention, intelligence and personality traits.

Course 56: Psychopathology

CO1. The students after the completion of this course will be able to describe, recognize and apply the knowledge about mental illness or mental distress or the dysfunctional behavior indicative of psychological impairment.

CO2. The students after the completion of this course will be able to describe, recognize the underlying causes in respect of genetics, psychological or social factors and understand the treatment.

Course 57: Social Psychology

CO1. The students after the completion of this course will be able to describe, recognize and apply the know-how of people's thoughts, feelings and behaviors being influenced in social setting.

Course 58: Psychological Assessment

CO1. The students after the completion of this course will be able to describe, recognize and apply the process and types of testing that uses tools to measure and conclude person's behavior in personal, social and occupational setting.

Course 59: Psychology - Human Development

CO1. The students after the completion of this course will be able to describe, recognize and apply the knowledge of biological and psychological development of the human being throughout the life span.

Course 60: Psychological Statistics

CO1. The students after the completion of this course will be able to describe, recognize and apply the formulas, theorems, numbers and laws to understand human psychology.

Course 61: Theory of Kathak Dance

CO1- The students are aware of the mythological stories of "Uma-Shankar" and "Krishna" and able to imagine a short dance-drama.

CO2 - Learn the basic meaning of "Sangeet" and importance of "Guru-Vandana"

CO 3-Learn the various folk theater traditions

CO4- Learn the basics of rhythm and "Taal"

CO5 - Learn the notations of the compositions of Teental and Jhaptal.

62: Theory of Kathak Dance CO1 - Students understand the glorious origin of "Natyashashtra" and history of Classical Dance

CO2 - The benefits of Dance - mental, physical, emotional and spiritual

CO3 - Students know the folk dances of Chhattisgarh state

CO4 - Learn the basic and important technical terms used in Kathak Dance

CO5-Learn the contributions of great masters and "Gurus" of Kathak Dance

Course 63: Theory of Kathak Dance

CO1- become familiar with "Abhinaya"

CO2- clear understanding of "Hand Gestures" (Asamyukta Hastas)

CO3- understanding of the "Drishti-bhed" and "Shirobhed"

CO4- familiarize with the other classical dances - Bharata-Natyam, Kathakali and Manipuri

CO5- introduction to "Lokadharmi" and "Natyadharmi" and the position of dance in society

Course 64: Theory of Kathak Dance CO1- Learn how to write in the notations of the compositions of "Ektaal"and "Choutaal"

CO2-- Learn the contributions of great masters and "Gurus" of Kathak Dance

CO3-- Understanding of the repertoire and essential compositions of Kathak Dance

CO4--Understand the importance of all the finearts and their connections

CO5--Basic knowledge of the folk dances of India and Chhattisgarh

Course 65: Theory of Kathak Dance CO1-students will be able to understand different classical dances - Kuchipudi,Odissi and Mohiniattam

CO2- Capable to understand the "RASA" and "BHAVA" (sentiments and psychological states)

CO3- Students know the double handgestures and eyebrow movements with their usages according to the "Abhinaya-Darpana"

CO4- Students understand the "Nritya","Natya" and "Nritya"

CO5- Students understand difference between "Guru-Shishya-Parampara" and institutionalized teaching system in performing arts

Course 66: Theory of Kathak Dance

CO1 Understand the "Ten-Pranas of Taal" and "Gharans"of Kathak Dance

CO2- understand the "Ashtanayikas" and "four Nayakas"

CO3- Learn the contributions of great masters and "Gurus" of Kathak Dance

CO4- Learn how to write in the notations of the compositions of "Dhamar"and "Rupak"

CO5- Students understand the connections of "Yog",folk arts and "Navarasa" with Kathak Dance.

Course Outcomes (CO) of the Courses common to all the UG Programmes mentioned above Course:

Foundation course English Language

CO1. The student will be able to write a paragraph with a topic sentence, support and concluding sentence.

CO2. The student will be able to produce appropriate vocabulary and correct word forms.

CO3. The student will be able to use grammatical structures accurately.

CO4. The student will be able to broaden their vocabularies and develop an appreciation of language.

CO5. The student will be able to be competent to write a report or idea expansion.

CO7. The student will be able to summarize and paraphrase information in a text.

Course: Environmental Studies and Human Rights

CO1. The students after the completion of this course will be able to describe, recognize and practice multi disciplinary nature of environmental studies, natural resources: renewable and non-renewable resources - forest resources, deforestation, timber extraction, mining, dams and their effects on forests and tribal people and relevant forest act, water resources, surface and ground water, floods drought, conflicts over water, dams benefits and problems and relevant act, mineral resources, environmental effects of extracting and using mineral resources, food resources, world food problems, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, energy resources, renewable and non renewable energy sources, use of alternate energy sources, land resources, land degradation, man induced landslides, soil erosion and desertification.

CO2. The students after the completion of this course will be able to describe, recognize and practice ecosystem - producers, consumers and decomposers, energy flow in ecosystem, ecological succession, food chains, food webs and ecological pyramids, structure and function of forest, grass, desert and aquatic ecosystem.

CO3. The students after the completion of this course will be able to describe, recognize and practice biodiversity and its conservation, genetic, species and ecosystem diversity, bio-geographical classification of India, value of biodiversity: consumptive use, productive use, social ethics, aesthetic and option values, biodiversity at global, national and local levels, India as mega-diversity nation, hot spots of biodiversity, threats to biodiversity, habitat loss, poaching of wildlife, man-wild life conflict, endangered and endemic species of India, conservation of biodiversity: in situ and ex-situ conservation of biodiversity.

CO4. The students after the completion of this course will be able to describe, recognize and practice pollution: causes, effect and control measures for – air, water, soil, marine, noise, nuclear pollution and human population, solid waste

management, urban and industrial wastes, disaster management: floods, earthquake, cyclone and landslides, environmental management - from unsustainable to sustainable development, water conservation, rain water harvesting, water shed management, resettlement and rehabilitation of people, environmental ethics, climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, wasteland reclamation, environment protection act, environmental legislation, information technology in environment and human health.

CO5. The students after the completion of this course will be able to describe, recognize and practice concepts of human rights, classification of human rights, protection of human rights under the UNO charter, protection of human rights under the universal declaration of human rights, 1948 convention on the elimination of all forms of discrimination against women, convention on the rights of the child, 1989.

CO6. The students after the completion of this course will be able to describe, recognize and practice human rights norms in India, human rights under the constitution of India, fundamental rights under the constitution of India, directive principles of state policy under the constitution of India, enforcement of human rights in India, protection of human rights under the human rights act, 1993- national human rights commission, state human rights commission and human rights court in India, fundamental duties under the constitution of India.

Course 2: Philosophical and Conceptual Foundation of Social Research

CO1. Students will be able to recognize various issues in social research.

CO2. Students will be able to undertake research by selectively choosing and formulating a social research problem.

Course 3: Social Change in India

CO1. Students will be able to perceive disciplinary & inter-disciplinary ideas about the sociology and social change in India.

CO2. Students will be able to recognize the various factors of sociology and social change in India.

Course 4: Rural Sociology

CO1. Students will be able to assimilate the theoretical and empirical knowledge of the past and present rural scenario and approach in rural sociology.

CO2. Students will be able to identify with the various changes and development in rural sociology.

Course 5: Classical Sociological Thinkers

CO1. Students will be able to explain the major themes of Marxian and Weberian perspectives on the social world.

CO2. Students will be able to compare and differentiate between Marxian and Weberian perspectives on the social world.

Course 6: Quantitative Research Techniques in Sociology CO1. Students will be able to assess, interlink,

correlate and use the measures of central tendency and measures of variation involved in social research. Course 7: Sociology of Development CO1. Students will be able to distinguish development theory from development as project and relate project development to environmental degradation and social use/abuse. Course 8: Indian Rural Society

CO1. Students will be able to absorb the theoretical and empirical knowledge of the past and present rural scenario and intricacies of social fabric in India. Course 9: Classical Sociological Theories CO1. Students will be able to recognize

the role of a sociological theory in the application of conceptual frameworks in a social research progress. CO2.

Students will be able to comprehend various sociological theories like structuralism and exchange theory. Course 10:

Social Movements in India CO1. Students will be able to understand the nature and types of social movements in

India. CO2. Students will be able to comprehend the theoretical perspectives of social movements in India. Course 11:

Perspectives of Study to Indian Society CO1. Students will be able to explain the major methods and concepts used in the systematic study of Indian society, its social classes, its social fabric and its sociological issues.

Course 12: Industry and Society in India

CO1. Students will be able to identify the trends of Industrial disputes in Indian society and their impacts on Indian social classes & sociology.

Course 13: Criminology

CO1. Students will be able to familiarize with mainstream criminological theories.

CO2. Students will be able to apply theories of crime and criminal justice to explain actual and hypothetical scenarios, behaviors and trends.

Course 14: Modern Sociological Theories

CO1. Students will be able to debate on modern sociological theories.

CO2. Students will be able to identify the origin and development of modern sociological theories.

Course 15: Comparative Sociology

CO1. Students will be able to compare the historical and social context of emergence of sociology.

CO2. Students will be able to identify various theoretical concerns in comparative sociology.

Course 16: Contemporary issues in Industry

CO1. Students will be able to ascertain the history, objectives and functions of trade unionism in India.

CO2. Students will be able to contemplate on Industrialization in the third world countries.

DEPARTMENT OF PHYSICS
Govt.D. B. Girls P.G. College, Raipur, C.G.

Program Outcomes and Course Outcomes

PROGRAM: B.Sc. (Physics, Mathematics, Chemistry/Computer Science /Geography)

PROGRAM CODE: BSPCM01

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
BS1PHY01	Mechanics, Oscillations and General Properties of matter	50
BS1PHY02	Electricity, Magnetism and Electromagnetic theory	50
BS1PHYP	Group A and Group B	50
	Total	150

Second Year:

BS2PHY01	Thermodynamics ,Kinetic theory and stastical physics	50
BS2PHY02	Waves, acoustics and optics	50
BS2PHYP	Group A and Group B	50
	Total	150

Third Year:

BS3PHY01	Relativity, Quantum mechanics, atomic, Molecular and Nuclear Physics	50
BS3PHY02	solid state Physics, solid state devices and Electronics	50
BS3PHYP	Group A and Group B	50
	Total	150

-----::PROGRAM OUTCOMES:: ----

Bachelor's degree in mathematics is the culmination of in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of mathematics. This also leads to study of related areas like computer science and statistics. Thus, this program helps learners in building a solid foundation for higher studies in mathematics. The skills and knowledge gained has intrinsic beauty, which also leads to proficiency in analytical reasoning. This can be utilized in modeling and solving real life problems. Students undergoing this program learn to logically question assertions, to recognize patterns and to distinguish between essential and irrelevant aspects of problems. They also share ideas and insights while seeking and benefitting from knowledge and insight of others. This helps them to learn behave responsibly in a rapidly changing interdependent society. Students completing this program will be able to present mathematics clearly and precisely, make ideas precise by formulating them in the language of mathematics,

Describe mathematical ideas from multiple perspectives and explain fundamental concepts of mathematics to non-mathematicians. Completion of this programme will also enable the learners to join teaching profession in primary and secondary schools. This programme will also help students to enhance their employability for government jobs, jobs in banking, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises. They have a bright opportunity of self entrepreneurship.

PO1-	Demonstrate, solve and an understanding of major concepts in all disciplines of physics.
PO2-	Solve the problem and also think methodically, independently and draw a logical conclusion.
PO3-	Employ critical thinking and the scientific knowledge to design, carryout, record and analyze the results of Physics experiments.

PO4-	Create an awareness of the impact of Physics on the society, and development outside the scientific community.
PO5-	To inculcate the scientific temperament in the students and outside the scientific community.
PO6-	Gain the knowledge to appear and qualify the different competitive exams such as PSC, UPSC, SSC, BANK, RAILWAYS, SCHOOL TEACHER EXAM etc.

---::PROGRAM SPECIFIC OUTCOMES::---

PSO1	The students after the completion of this program will be able to understand and apply the fundamentals of Mechanics, Oscillation and Properties of Matter.
PSO2	The students after the completion of this program will be able to understand and apply the fundamentals of Electricity, Magnetism and Electromagnetic Theory.
PSO3	The students after the completion of this program will be able to understand and apply the fundamentals of Thermodynamics, Kinetic Theory and Statistical Physics.
PSO4	The students after the completion of this program will be able to understand and apply the fundamentals of Wave, Acoustics and Optics.
PSO5	The students after the completion of this program will be able to understand and apply the fundamentals of Relativity, Quantum Mechanics, Atomic, Molecular and Nuclear Physics.
PSO6	The students after the completion of this program will be able to understand and apply the fundamentals of Solid State Physics, Solid State Devices and Electronics.

---:COURSE OUTCOMES:---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BS1PHY0 1/21	Physics - Mechanics,Oscillations and General Properties of matter	I- Grasping the fundamentals of different types of frames and transformation laws,different type of coordinate systems .
		II - Understanding of rigid body motion including examples
		III-Learn the fundamentals of oscillators including damped and forced and grasp the significant terms like quality factor and damping factor
		IV- Learn the effect of electric and magnetic field on a charge particle
		V - Learn the basics of properties of matter and laws for them including elasticity,viscosity and surface tension
BS1PHY0 2/21	Physics- Electricity,Magnetism and Electromagnetic theory	I - Students are expected to understand the use of mathematical operators-gradient,divergence and curl,understanding of different theorems for complicated circuits
		II - Have gained the elaborated knowledge about electrostatics and laws governing the charge distribution.
		III - study in depth about Polarisation,bound charges and boundary conditions,study of transient current response of CR,LC,LR and LCR circuits
		IV - To realize the importance of Biot- Savart law and Ampere's law
		V -capable to solve a variety of problems related to Faraday's law and Maxwell's equations expected to understand displacement current as well
BS2PHY0 1/21	Physics- Thermodynamics ,Kinetic theory and statistical physics	I- become familiar with laws of thermodynamics and various thermodynamical processes
		II - clear understanding of thermodynamical relationship
		III- understanding of maxwellian distribution of speed and transport phenomena in gases
		IV - familiarize with the statistical basis of thermodynamics
		V - introduction to basic statistics- Maxwell-boltzman,bose-Einstein,Fermi-dirac statistics
BS2PHY0 2/21	Physics- Waves ,acoustics and optics	I- Understanding of waves, their propagation ,phenomena related to sound
		II- understanding of geometrical optics,image formation ,aberrations in images, optical instruments
		III - Understanding of phenomena of interference and interferometer
		IV- understanding of diffraction and diffraction grating
		V- basic knowledge of LASER
BS3PHY0 1/21	Physics- Relativity, Quantum mechanics,atomic,Mole cular and Nuclear Physics	I-students will be able to understand different frames of reference, concept of relativity and its applications
		II- capable to understand the origin of quantum theory and get the knowledge about wave properties of particles De Broglie waves and its application
		III- to find the solution of schrodinger equation for many system,familiarize with different quantum numbers
		IV- to understand the spectra of hydrogen atom ,alkali atoms and fine

		structure of spectra
		V- to understand different types of nuclear detectors,nuclear reactions and different atomic models.
BS3PHY0 2/21	Physics- solid state Physics,solid state devices and Electronics	I- understanding of different crystal structure and parameters
		II- understanding of electron model of metals,kronig-penny model,semiconductors,magnetic theory and principles for substances
		III- have a basic knowledge of semiconductor physics and devices
		IV- application of semiconductor devices,rectifier,amplifier and oscillators
		V- understanding of basics of computers hardware and introduction to programing



DEPARTMENT OF BOTANY

Program Outcomes and Course Outcomes

PROGRAM: B. Sc. (Botany, Zoology/Biotechnology/Geography, Chemistry)

PROGRAM CODE: BSBCZ02

SCHEME OF PROGRAM AT A GLANCE

Programme	Course	Core Course
BSBCZ02	BS1BOT01/21	VIRUSES, BACTERIA, ALGAE, FUNGI AND LICHENS
	BS1BOT02/21	BRYOPHYTES PTERIDOPHYTES, GYMNOSPERMS AND PALEOBOTANY
BSBCZ02	BS2BOT01/21	DIVERSITY OF SEED PLANTS & THEIR SYSTEMATICS
	BS2BOT02/21	STRUCTURE , DEVELOPMENT & REPRODUCTION IN FLOWERING PLANTS
BSBCZ02	BS3BOT01/21	PLANT PHYSIOLOGY, BIOCHEMISTRY & BIOTECHNOLOGY
	BS3BOT02/21	ANALYTICAL TECHNOLOGY PLANT PATHOLOGY, EXPERIMENTAL EMBRYOLOGY,ELEMENTARY BIOSTATISTICS, ENVIRONMENTAL POLLUTION AND CONSERVATION

-----: PROGRAM OUTCOMES :: -----

As a gift of nature with unique feature of plants to trap solar energy providing food, shelter & cloths to human society and fulfill the requirement of oxygen in atmosphere to survival of the life on the Earth that can't be replicated /substituted by any other system. Plant science is now an amalgamation of basic and applied science; whereas conventional studies about plants are now being supplemented with biochemical & molecular techniques as well instruments / electrical-electronic devices based study.

As much beneficial to the learners, the courses have been designed to study various aspects of plant science including its practical applications; keeping in mind that these students would be strongly able to make up their bright career in different fields such as higher education for teaching & research, civil services, corporate and /or industry / job, entrepreneurship and other private sectors after completion of this program -

PO1-	Knowledge and understanding: The range of plant diversity in terms of structure, function and environmental relationships; the evaluation of plant diversity, plant classification and the flora of Chhattisgarh. The role of plants in the functioning of the global ecosystem and statistics as applied to biological data.
PO2-	Critical Thinking: Apply the knowledge of biology to make scientific queries and enhance the comprehension potential. Ability to work as part and /or leader of a team with an ability of Time management and Career planning.
PO3-	Intellectual skills: Think logically and organize tasks into a structured form and able to transfer of appropriate knowledge and methods from one topic to another within the subject to understand the evolving state of knowledge in a rapidly developing field.
PO4-	Practical skills: Able to carry out practical work, in the field and in the laboratory, with minimal risk and have an introductory experience in applying the skills & proficiency for interpreting plant morphology and anatomy, plant identification, vegetation analysis techniques and physiochemical analyses of plant materials in the context of plant physiology and biochemistry.
PO5-	Effective Communication: Successful transfer of scientific knowledge / ideas directly or using ICT tools (word-processing, use of internet, statistical packages and databases) both in writing and orally.
PO6-	Social Interaction: Function as an individual, as a member or a leader to perform a task in class room situation or during field study. Apply reasoning informed by the contextual knowledge to assess plant diversity, its importance for society, health, safety, legal and environmental issues and the consequent responsibilities relevant to the biodiversity conservation practice.
PO7-	Environment and Sustainability: Well understandings the impact of the plant diversity in societal & environmental contexts; demonstrate the knowledge as the need for sustainability and insist the significance of conserving a clean environment for perpetuation and sustainable development.
PO8-	Ethics: Apply ethical principles and commit to environmental ethics with responsibilities & norms of the biodiversity conservation. Must to convey and practice social, environmental and biological ethics.
PO9-	Effective Citizenship: Responsible for learning, develop honesty in work and respect for self and others. Function effectively as an individual member or leader in diverse teams and in multidisciplinary settings towards the development of the society or nation
PO10-	Self-directed and Life-long Learning: Study incessantly by self to cope with growing competition for higher studies and employment. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the academic, organization as well society context of environmental & scientific change.

---:: COURSE OUTCOMES ::---

Course code	Paper Name	Course Outcomes
BS1BOT01/21	Bacteria, Viruses, Fungi, Lichens, and Algae	VIRUSES: General characteristics, types of viruses based on structure and genetic material. Multiplication of viruses (General account), Lytic and Lysogenic cycle. Economic importance. Structure and multiplication of Bacteriophages. General account of Viroids, Virusoids, Prions, and Cyanophages. Mycorrhiza-Types and Significance.
		BACTERIA: General characteristics and classification (on the basis of morphology), fine structure of bacterial cell, Gram positive and Gram negative bacteria, mode of nutrition and reproduction vegetative, asexual and recombination (Conjugation, transformation and transduction), Economic importance. Microbial Biotechnology, Rhizobium, Azatobactor, Anabena.
		FUNGI: General account of habit and habitat, structure (range of thallus organization), cell wall composition, nutrition and reproduction in fungi. Heterothallism and Parasexuality. Outlines of classification of fungi. Economic importance of fungi. Life cycles of Saprolegnia, Albugo,, Aspergillus, Peziza, Agaricus, Ustilago, Puccinia, Alternaria and Cercospora. VAM Fungi
		ALGAE: Algae: General characters, range of thallus organization, Gaidukov phenomenon, reproduction, life cycle patterns and economic importance. Classification, Systematic position, occurrence, structure and life cycle of following genera : Nostoc, Gloeocaspsa, Volvox,, Oedogonium, Vaucheria, Chara, Ectocarpus, Polysiphonia.
		Lichens- General account, types, structure, nutrition, reproduction and economic importance. Mycoplasma: Structure and importance. Blue Green Algae (BGA) in nitrogen economy of soil and reclamation of Ushar land. Mushroom Biotechnology
BS1BOT02/21	Bryophytes, Pteridophytes, Gymnosperms and Palaeobotany	General characteristics, affinities, range of thallus organization, general classification and economic & ecological importance, Systematic position, occurrence, morphology anatomy and reproductive structure in Riccia, Marchantia, Pellia, Anthoceros, Funaria. Vegetative reproduction in Bryophytes, Evolution of sporophytes.
		PTERIDOPHYTES: General characteristics, affinities, economic importance and classification, Heterospory and seed habit, stellar system in Pteridophytes, Aposory and apogamy, Telome theory, Azolla as Biofertilizer.
		Systematic position, occurrence. Morphology, anatomy and reproductive structure of Psilotum, Lycopodium, selaginella, Equisetum, Marsilea.
		Gymnosperm: General characteristics, affinities, economic portance and classification, Morphology, anatomy and production in Cycas, Pinus and Ephedra.
		PALAEOBOTANY: Geological time scale, types of fossils and fossilization, Rhynia, study of some fossil

		gymnosperms. Lygenopteris
BS2BOT01/21	Diversity of Seed Plants & Their Systematics	Knowledge of Plant Fossils, classification of Gymnosperm M,
		Morphology, Anatomy & Life History of 3 Major Gp. of Gymnosperm.
		Angiosperm- Origin evolution, Plant identification and botanical nomenclature
		Classification of Angiosperm and Modern trends of Plant taxonomy
		Important Dicot and monocot families of Angiosperms
BS2BOT02/21	Structure Development and reproduction in Flowering Plants	Modular type of plant growth, Diversity of plant habit and evolution of tree habit, The largest and longest trees,
		Shoot system, Secondary growth,
		Morphology and anatomy of leaf and root, root apical meristem and Root microbe interaction,
		Morphology and embryology of Flower,
		Significance of Seed and vegetative reproduction and their economic aspects
BS3BOT01/21	Plant physiology, Biochemistry and biotechnology	Plant water relation, mineral nutrition, Translocation of organic foods in plants, Enzymes, photosynthesis,
		respiration, nitrogen and lipid metabolism,
		Plant growth and development, Plant hormones,
		Genetic engineering, DNA technology, Plant Biotechnology, Plant Tissue Culture and Biology of agrobacterium
BS3BOT02/21	Analytical Technology Plant Pathology, Experimental Embryology, Elementary Biostatistics, Environmental Pollution And Conservation	Environmental Factors & Ecological Adaptations of Plants,
		Ecosystem & Community Ecology
		Population ecology, Forest and Grassland vegetation and biogeographical regions of India,
		Food and fiber plants, vegetable oil, Sources of fire wood timber and bamboo,
		spices, medicinal plants and beverages

DEPARTMENT OF MATHEMATICS

Govt. D. B. Girls P.G. College, Raipur, C.G.

Program Outcomes and Course Outcomes

PROGRAM: B. Sc. (Mathematics, Physics, Chemistry/Computer Science /Geography)

PROGRAM CODE: BSPCM01

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
BA/BSM1-01	Algebra and Trigonometry	50
BA/BSM1-02	Calculus	50
BA/BSM1-03	Vector Analysis and Geometry	50
Total		150

Second Year:

BA/BSM2-01	Advanced Calculus	50
BA/BSM2-02	Differential Equations	50
BA/BSM2-03	Mechanics	50
Total		150

Third Year:

BA/BSM3-01	Analysis	50
BA/BSM3-02	Abstract Algebra	50
BA/BSM3-03	Discrete Mathematics	50
Total		150

-----: PROGRAM OUTCOMES :: ----

Bachelor's degree in mathematics is the culmination of in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of mathematics. This also leads to study of related areas like computer science and statistics. Thus, this programme helps learners in building a solid foundation for higher studies in mathematics. The skills and knowledge gained has intrinsic beauty, which also leads to proficiency in analytical reasoning. This can be utilized in modelling and solving real life problems. Students undergoing this programme learn to logically question assertions, to recognize patterns and to distinguish between essential and irrelevant aspects of problems. They also share ideas and insights while seeking and benefitting from knowledge and insight of others. This helps them to learn behave responsibly in a rapidly changing interdependent society. Students completing this programme will be able to present mathematics clearly and precisely, make ideas precise by formulating them in the language of mathematics,

Describe mathematical ideas from multiple perspectives and explain fundamental concepts of mathematics to non-mathematicians. Completion of this programme will also enable the learners to join teaching profession in primary and secondary schools. This programme will also help students to enhance their employability for government jobs, jobs in banking, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises. They have a bright opportunity of self entrepreneurship.

PO1-	Knowledge domain: Demonstrate an understanding of the basic concepts in mathematics, statistics, operations research and their importance in the solution of some real- world problems.
PO2-	Problem analysis: Analyze and solve the well-defined problems in mathematics statistics, and operations research. Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decision. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
PO3-	Presentation and Interpretation of Data: Demonstrate the ability to manipulate and visualize data and to compute standard statistical summaries.
PO4-	Modern tool usage: Learn, select, and apply appropriate methods and procedures, resources and computing tool such as Excel, MATLAB, MATHEMATICAL, SPSS etc with an understanding of the limitations.
PO5-	Ethics: Analyze relevant academic, professional and research ethical problems and commit to professional ethics and responsibilities with applicable norms of the data analysis and research practices.

PO6-	Communication: Effectively communicate about their field of expertise on their activities, with their peer and society at large. Such as, being able to comprehend and write effective reports and design documentation, make effective presentations.
PO7-	Project Management: Apply Knowledge and understanding of principles of mathematics and statistics effectively as an individual, and as a member or leader in diverse teams to manage projects in multidisciplinary environment
PO8-	Research Proposal: Define, design and deliver a significant piece of research work that is clear and concise. Demonstrate the necessary skills and knowledge of deeper understanding of their chosen research area. Understand the philosophy of research in mathematical sciences and appreciate the value of its development.
PO9-	Effective Citizenship: Responsible for learning, develop honesty in work and respect for self and others. Function effectively as an individual member or leader in diverse teams and in multidisciplinary settings towards the development of the society or nation
PO10-	Self-directed and Life-long Learning: Study incessantly by self to cope with growing competition for higher studies and employment. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the academic, organization as well society context of environmental & scientific change.

---: PROGRAM SPECIFIC OUTCOMES :--

After the successful completion of UG programs in Mathematics the students will be able to:

- Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.
- A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.
- Ability to analyze a problem, identify and define the computing requirements, which may be appropriate to its solution.
- Introduction to various courses like group theory, ring theory, field theory, metric spaces, number theory.
- Enhancing students' overall development and to equip them with mathematical modelling abilities, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- Ability to pursue advanced studies and research in pure and applied mathematical science.

---:: COURSE OUTCOMES ::---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BA/BSM1-01	Algebra and Trigonometry	Matrices are a notable example of a common thread in Mathematics. Theory of Equations comprises a major part of traditional algebra. Group theory consist study of algebraic structures. A ring theory is one of the fundamental algebraic structures used in abstract algebra. De Moivre's theorem gives a formula for computing powers of complex numbers.
BA/BSM1-02	Calculus	Calculus is also used to gain a more precise understanding of the nature of space, time, and motion The study of differential equations is a wide field in pure and applied mathematics, physics, and engineering. Many fundamental laws of physics and chemistry can be formulated as differential equations. Applications of integral calculus include computations involving area, volume, arc length, centre of mass, work, and pressure. More advanced applications include power series and Fourier series.
BA/BSM1-03	Vector Analysis and Geometry	Vector Analysis provide geometric and physical explanations of the integral of a vector field over a curve. Stokes theorem is usually used in elctromagnisum. Gauss's Law simplifies the calculation of the electric field. Describe the various forms of equation of a plane, straight line, Sphere, Cone and Cylinder.
BA/BSM2-01	Advanced Calculus	Define various theorem of sequence in advanced calculus. The notion of continuity and differentiability is a pivotal concept in calculus because it directly links and connects limits and derivatives. Partial derivatives are used in vector calculus and differential geometry. Double and triple integrals determine area and volume.
BA/BSM2-02	Differential Equations	Power series is an important application in the field of engineering spectrum analysis. Partial differential equations are used to mathematically formulate, and thus aid the solution of, physical and other problems involving functions of several variables, such as the propagation of heat or sound, fluid flow, elasticity, electrostatics, electrodynamics. The transform has many applications in science and engineering because it is a tool for solving differential equations. The calculus of variations is a field of mathematical analysis that uses variations, which are small changes in functions and functional, to find maxima and minima of functional, mappings from a set of functions to the real numbers.
BA/BSM2-03	Mechanics	Static mechanics analysis of loads acting on physical systems that do not experience an acceleration, but rather, are in static equilibrium with their environment. The motion of celestial bodies as well as manmade objects such as space probes, satellites etc are the fields where mechanics is the Base.
BA/BSM3-01	Analysis	Real Analysis enables the necessary background for Measure Theory. Measure theory is further used in the study of Stochastic Differential Equations (Finance, Signal Processing), Stochastic Geometry (Wireless Communications), Topology (Topological Data Analysis) and many more. Complex analysis, in particular the theory of conformal mappings, has many physical applications and is also used throughout analytic number theory. Another important application of complex analysis is in string theory which studies conformal invariants in quantum field theory. Understand several standard concepts of metric spaces and their properties like openness, closed ness, completeness, Bolzano Weierstrass property, compactness, and connectedness. Identify the continuity of a function defined on metric spaces and homeomorphisms

BA/BSM3-02	Abstract Algebra	Understand the basic concepts of group actions and their applications. Recognize and use the Sylow theorems to characterize certain finite groups. Know the fundamental concepts in ring theory such as the concepts of ideals, quotient rings, integral domains, and fields. Learn in detail about polynomial rings, fundamental properties of finite field extensions, and classification of finite fields.
BA/BSM3-03	Discrete Mathematics	Learn about partially ordered sets, lattices and their types. Understand Boolean algebra and Boolean functions, logic gates, switching circuits and their applications. Solve real-life problems using finite-state and Turing machines. Assimilate various graph theoretic concepts and familiarize with their applications.

DEPARTMENT OF ZOOLOGY
Govt. D. B. Girls P.G. College, Raipur, C.G.

Program Outcomes and Course Outcomes

PROGRAM: B.Sc. (Zoology, Chemistry, Botany/ Biotech/ Food Science/ Geography)

PROGRAM CODE: BSZBC04

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
BS1ZOL01/21	CELL BIOLOGY AND INVERTEBRATE	50
BS1ZOL02/21	VERTEBRATES AND EMBRYOLOGY	50
BS1ZOLP/21	PRACTICAL	50
Total		150

Second Year:

BS2ZOL01/21	ANATOMY & PHYSIOLOGY	50
BS2ZOL02/21	VERTEBRATE, ENDOCRINOLOGY, REPRODUCTIVE BIOLOGY, BEHAVIOUR, EVOLUTION & APPLIED ZOOLOGY	50
BS2ZOLP/21	PRACTICAL I	50
		150

Third Year:

BS3ZOL01/21	ECOLOGY ENVIRONMENTAL BIOLOGY , TAXICOLOGY , MICROBIOLOGY AND MEDICAL ZOOLOGY	50
BS3ZOL02/21	GENETICS CELL PHYSIOLOGY BIOTECHEMISTRY , BIOTECHNOLOGY & BIOTECHNIQUES	50
BS3ZOLP/21	PRACTICAL	50
Total		150

-----:: PROGRAM OUTCOMES :: -----

PO-1	A Bachelor of Science degree (or B.Sc. for short) is a degree awarded at universities around the world for completion of an undergraduate-level study in a science- or technology-related field.
PO-2	It engages the student at their teenage and mould their brain upto a maturity level by the time program gets completed.
PO-3	Enrolling in an BSc degree program translates to making a significant investment in one's professional career and also helps the student to get prepared for the professional examinations like IAS, IFS, PSC, Bank Services etc.
PO-4	In addition to the enhanced career prospects that can be gained by taking a Bachelor of Science, students also develop valuable personal skills and it helps in building their confidence level to face different challenges in life.
PO-5	It also fulfill a crucial prerequisite to Master studies.
PO-6	B.Sc level programme is designed in such a manner that a student can post completion can align to any related course of M.Sc.
PO-7	The syllabus of B.Sc. Zoology connect various key academic field of Elite course of M.Sc. Zoology like Master's in Ethnology, Cytology , Entomology, Environmental Science, Bio technology, Microbiology, Nymnology, Endocrinology, Physiology, Wildlife Conservtion, Animal Behavior etc.

---:: PROGRAM SPECIFIC OUTCOMES ::---

After the successful completion of UG programs in Zoology the students will be able to:

PSO-1	Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology
PSO-2	Analyse the relationships among animals, plants and microbes
PSO-3	Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Endocrinology, Gamete Biology, Toxicology, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology
PSO-4	Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine.
PSO-5	Gains knowledge about research methodologies, effective communication and skills of problem solving methods
PSO-6	Contributes the knowledge for Nation building.

---:: COURSE OUTCOMES ::---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BS1ZOL-01/21	Cell Biology & Non Chordata	This course is designed to understand the structures and purposes of basic components of prokaryotic and eukaryotic cells, especially macromolecules, membranes, and organelles, how these cellular components are used to generate and utilize energy in cells, the cellular components underlying mitotic, responses to environmental or physiological changes, or alterations of cell function brought about by mutation, the process of cell division in both somatic and germ cell. The paper enhance knowledge on the following topic:
		1 Prokaryotic and Eukaryotic cell, its cytoplasm, nucleus, chromosome, DNA & RNA.
		2 Cell division, Cancer cells, Immunology basic idea of lymphoid, Antigen, Antibody.
		3 Gen. characters and classification of Protozoa, Porifera. Coelentrata. Study of Paramecium, Sycon, Obelia etc.
		4 Gen. characters and classification of Platyhelminthes, Nemathehelminthes. Anilida & Arthropoda. Study of Fasciola, Ascaris, Pheretima & Palaemone.
		5 Gen. characters and classification of Molluscs and Echinodermates. Study of Pila & Asterias
BS1ZOL-02/21	Chordata & Embryology	The course explains the sequence of events starting with a single cell to the production of a very complex organism. The course not only describes how embryos develop (embryology), but also highlights how the processes of development are brought about by changing individual cells into specialized cells with specific functions (the cellular level), and how genes within the genome of the organism drive and guide these changes (the molecular level). It also deals with a comparative account of development in some select groups of animals. The paper details out the following fields:
		1 Classification of Protochordata & Chordata. Animal study of Balanoglosses, Herdmania, Amphioxus. Petromyzon and Myxine
		2 Skin, Scale, Migration and Parental care of fish. Parental care and Neoteny of Amphibia. Snake, Snake Venom. Extinct Reptiles
		3 Flight, Migration and Perching mechanism of Birds. Mammals- Prototheria, Metatheria & Eutheria. Aquatic Mammals
		4 Gametogenesis, Fertilization and parthenogenesis
		5 Formation of three germ layers and Placenta of Mammals
BS2ZOL-01/21	Anatomy & Physiology	Anatomy & Physiology gives students in-depth instruction in the organization structures, and functions of the human body. Students will learn the terminology, anatomy and physiology, and pathology of each body system and how they interrelate to maintain homeostasis. The paper develops understanding of students under following topics:
		1 Comparative study of Integument, Digestive and Respiratory system.
		2 Study of Endoskeleton, Circulatory & Urinogenital system
		3 General plan of Brain, Spinal cord. Study of Ear & Eye. Gonads & Genital duct
		4 Physiology of Digestion & Respiration, Cardiac cycle, ECG, Blood coagulation
		5 Physiology of Excretory system, Nerve conduction, Role of Synapses & Neurotransmitter, Muscle Contraction

BS2ZOL-02/21	Vertebrate Endocrinology, Reproductive Biology, Behavior, Evolution and Applied Zoology	The course envisages information on endocrine system with emphasis on the structure of hypothalamus and anterior pituitary. The associated hormones and the related disorders will be explained. The course also explain the natural behaviour patterns, how the behaviour varies among individuals and species (wild, domestic, and captive), how current and past environments and ecology influence not only behaviour, but also the underlying gene- environment interactions that shape it. Reproductive Biology is to provide students with a sound coverage of human reproductive biology within the framework of Human Biology. It also envisages the detailed structure and function of the male and female reproductive tracts, gametogenesis, fertilization, early embryogenesis, foetal development and preparation for birth, and maternal adaptations to pregnancy. This paper details out under following topics:
		1 Biosynthesis Receptor mechanism of Hormones and its Disorders
		2 Reproductive cycle of Vertebrate, Menturation cycle, Lactation, Pregnancy, and mechanism of Parturation. Hormonal regulation of gamrtogenesis
		3 Evidence of Evolution, Theories of Organic Evolution, Variation, Mutation, Isolation, Natural selection, and Evolution of Horse
		4 Ethology, pattern of Behavior, Taxes, Reflexes, Drives. Drugs & Behavior. Hormone & Behavior
		5 Prawn, Seri, Api, Pesci, and Poultry Culture. Pest control-Chemical & Biological
BS3ZOL-01/21	Ecology, Environmental Biology, Toxicology, Microbiology, Medical Microbiology	This course will take students on a journey through the physical workings of the Earth, the interactions between species and their environments. The paper highlights on some of the important aspects viz. growth and survival of populations and communities in different habitats, energy flow in the ecosystems, interactions between the communities, exclusion of niches and consequences of changing environment on the biodiversity. Microbiology being the study of microorganisms such as viruses, bacteria etc., covers theoretical studies and practical proficiency training which may help in their placement at a clinical microbiological laboratory after advance study. The students will also get introduced to the toxicological analysis and the signs and symptoms of important toxic syndromes. The students will also study the basic toxicokinetic principles and metabolic systems to elucidate mechanisms of toxicity induced by xenobiotic compounds. The paper covers the following topics in details:
		1 Ecology, Environmental Biology, Different Eco-system, Biological cycle and Air and Water pollution
		2 Limiting factors, Food chain, Energy flow, Fresh water ecosystem, conservation of Nagural Resources and Environmental Impact Assesment
		3 Classification of Toxident and its Impacts on Human, Snake, Scorpio and Bees Vennom. Food poisoning
		4 Domestic & Sewage Microbiology. Microbiology of Milk and Milk product. Industrial microbiology
		5 Medical microbiology - Pathogenic Protozons & Helminths
BS3ZOL-02/21	Genetics, Cell Physiology, Biochemistry, Biotechnology and Biotechniques	The course is designed to revise basic concepts of Genetics and then move on to advanced concepts. Some key aspects include the mechanism of inheritance, gene structure and sex chromosomal and autosomal anomalies, aspects of human genetics, etc. will be covered. It elaborates on physiology at cellular and system levels. The course

		<p>provides an introduction to the structure of biomolecules with emphasis on the techniques used for structure determination and analysis. The course covers basic aspects of sample preparation for analysis and aims to enlighten the students how structural information can be utilized for better understanding of biological processes. The paper elucidate the following topics in detail:</p>
		1 Linkage, Gene expression - Multiple alleles, Mutation & Chromosomal Alteration
		2 pH & Buffers, Transport across Membrane - Cell membrane, Mitochondria, Endoplasmic Reticulum, Active & Passive Transport mechanism, Hydralytic Enzyme.
		3 Structure & Metabolism of Amino Acid, Peptide, Protein, Carbohydrate, and Lipids.
		4 Recombinant DNA & Gene Cloning. Application of Biotechnology in Pharmacy & Food Processing Industries
		5 pH, Colorimeter, Centrifuge, Chromatography, Gel electrophoresis. Histochemical methods for determination of Protein, Lipid and Carbohydrate

DEPARTMENT OF BIOTECHNOLOGY

GOVT.D.B.GIRL'S P.G. (AUTONOMOUS) COLLEGE RAIPUR CHHATTISGARH

Programme Outcomes, Programme Specific Outcomes, Course Outcomes

PROGRAMME: B.SC. (BIOTECHNOLOGY)

PROGRAMME CODE: BSBCB05 (Biotechnology/Botany/Chemistry)

: BSZBCO5 (Zoology/Biotechnology/Chemistry)

SCHEME OF PROGRAMME AT A GLANCE

B.Sc. Part I Biotechnology

COURSE/PAPER	COURSE TITLE	THEORY PAPER I&II		PRACTICAL PAPER
BS1BT01/21	Biochemistry, Biostatistics, and Computer	50		50
BS1BT02/21	Cell Biology, Genetics and Microbiology	50		
		Total	100	50

B.Sc. Part II Biotechnology

COURSE/PAPER	COURSE TITLE	THEORY PAPER I&II		PRACTICAL PAPER
BS2BT01/21	Molecular Biology and Biophysics	50		50
BS2BT02/21	Recombinant DNA technology and Genomics	50		
		Total	100	50

B.Sc. Part III Biotechnology

COURSE/PAPER	COURSE TITLE	THEORY PAPER I&II		PRACTICAL PAPER
BS3BT01/21	Plant, Environment and Industrial Biotechnology	50		50
BS3BT02/21	Immunology	50		
		Total	100	50

PROGRAMME OUTCOME

The B.Sc. Biotechnology is three year degree course. In which first two years student studies about core subjects of biotechnology to ensure their goal of learning , and also they receive grounding knowledge in fundamentals .Students will then got specialization in final year. Biotechnology Course contain topics covering all aspects of applied biotechnology based industry, such as Pharmaceuticals and Drug manufacturing industry and other field as Intellectual Property Rights and Patents, commercializing technology etc.

PO1	the students gain Core and fundamental knowledge of subject of Biotechnology
PO2	As a basics and necessary part of research field in biotechnology, in second year students gain fundamental knowledge of DNA, RNA and gene structure with learning of uses of instruments, and general concept and application of recombinant DNA technology, ,
PO3	Study plant tissue culture technique and Learning aspects about applied biotechnology based industry, and immunological techniques along with application of environmental biotechnology .

PROGRAMME SPECIFIC OUTCOMES

Students would be benefited with knowledge of core subjects biochemistry, molecular biology Cytology, genetics and application of biostatistics and computers etc. which are offered in these subjects Modules on analytical techniques. Genetic Engineering plant tissue culture, industrial and environmental biotechnology, immunology would make them obtain skills in doing research. All the courses in the programme are designed to equip the students for competitive exams like PG Entrance, CSIR NET, and SET etc.

PSO1	Core and fundamental knowledge	Understanding of Biochemistry,Enzymology,including metabolism, analyze and interpret data to reach to an Effective conclusion
PSO2	The understanding about the microbial world and Genetics	To increase knowledge of microbes and diversity, phylogeny, sexuality and economic importance. study of Viruses, Phytoplasma, Archae /Eubacteria, and Fungi with their interactive
PSO3	fundamental knowledge of Biomolecule and use of instruments	Obtaining learning gives interest in scientific research Area and ability to carry out practical work, in the field and in the laboratory
PSO4	Practical skills with Knowledge of application of recombinant DNA technology,	Able to explain the methods used for biotechnology for society and environment. Use the Bioinformatics toll in biological data analysis and classify different types of biological databases
PSO5	Application of Knowledge in Biotechnology	would make them obtain skills in doing research and industrial purpose.
PSO6	fundamental knowledge of Immunology	Practice of subject with Knowledge of immune system and diversity, immunogenic technique

COURSE OUTCOMES OF B.SC. IN BIOTECHNOLOGY

Course code	Course Outcomes
BS1BT01/21	This paper gives fundamental and functional knowledge of Bio molecules, Enzymes and Hormones, Metabolic pathway to understand Energy Transport Chain, Basic learning of Biostatistics and Computers as core learning of subject
BS1BT02/21	In this paper it includes Studies of Cell and Knowledge of structure and function of cell, Study of cell organelles, Study of genetics to understand pattern of inheritance, Basic study of microorganism their growth, nutrition and culture economic importance of microbes. Which is necessary as basics and advance research field?
BS2BT01/21	Fundamental knowledge of DNA, RNA and gene, Study of protein synthesis, Advance study of Gene therapy, Basic learning of biophysics and use of instruments like centrifuge, colorimeter etc.
BS2BT01/21	General concept and application of recombinant DNA technology, use of vectors in genetic engineering, study of PCR, genome map genomic project, IVF, stem cell technology, transgenic animal and plant.
BS3BT01/21	Basic techniques of plant tissue culture and application of plant biotechnology, study of environment biotechnology and industrial biotechnology, importance of food preservation and food technique.
BS3BT01/21	General and Fundamental knowledge of antibodies, Study of immunological disorders and autoimmune disease and functional knowledge of immunology, diversity of immune system, study of antibodies

DEPARTMENT OF CHEMISTRY

Govt. D. B. Girls P.G. College, Raipur, C.G.

Program Outcomes and Course Outcomes

PROGRAM: B.Sc. (Chemistry/ Botany/ Geography)

PROGRAM CODE: BSCBG06

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
BS1CH01/21	PHYSICAL CHEMISTRY	50
BS1CH02/21	INORGANIC CHEMISTRY	50
BS1CH03/21	ORGANIC CHEMISTRY	50
Total		150

Second Year:

BS2CH01/21	INORGANIC CHEMISTRY	50
BS2CH02/21	ORGANIC CHEMISTRY	50
BS2CH03/21	PHYSICAL CHEMISTRY	50
Total		150

Third Year:

BS3CH01/21	INORGANIC CHEMISTRY	50
BS3CH02/21	ORGANIC CHEMISTRY	50
BS3CH03/21	PHYSICAL CHEMISTRY	50
Total		150

-----:: PROGRAM OUTCOMES :: ----

PO-1	After successful completion of three-year degree program with chemistry as one of the core subject a students will be able to:
PO-2	Demonstrate, solve and have an understanding of major concepts in all disciplines of chemistry.
PO-3	Gain the knowledge of chemistry through theory and practical
PO-4	To explore nomenclature, stereochemistry, structures, reactivity and mechanism of the chemical reactions.
PO-5	Identify chemical formulae and solve numerical problems.
PO-6	Know the structure activity relationship, understand good laboratory practice and safety
PO-7	Students can expand the knowledge available opportunities related to the chemistry in government and private sectors specially in the field of food safety, quality control, health inspector, pharmacist, environmentalist, chemists and also, they can choose to civil services

---:: PROGRAM SPECIFIC OUTCOMES ::---

After the successful completion of UG programs in Chemistry the students will be able to:

PSO-1	Gain the knowledge of Chemistry through theory and practical's.
PSO-2	To explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions
PSO-3	Identify chemical formulae and solve numerical problems.
PSO-4	Use modern chemical tools, Models, Chem-draw, Charts and Equipment's.

PSO-5	Know structure-activity relationship.
PSO-6	Understand good laboratory practices and safety.
PSO-7	Develop research oriented skills.
PSO-8	Make aware and handle the sophisticated instruments/equipments.

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BS1CH01/21	PHYSICAL CHEMISTRY	Students are enabled to get a fundamental knowledge of inorganic chemistry including atomic structure and the Periodic properties of elements.
		Enable students to learn the Chemical bonding, shape of molecules and theories like VBT and MOT and the formation of molecules.
		Enable students to know the properties of s & p block elements and their comparative studies.
		Enable to understand the chemistry of Noble gases as well as the theory and principle of qualitative analysis.
		Enables them to learn scientific reasoning and solving analytical problems
BS1CH02/21	INORGANIC CHEMISTRY	Enable the students to learn basic concepts and terminology used in the organic chemistry..
		Stereochemistry enables them to know the structure of organic compounds and their behaviour
		Conformation analysis enables them to learn the stability of the compounds.
		Chemistry of aliphatic hydrocarbon with sigma and pi bonds, chemistry of alkenes and alkynes.
		Chemistry of aromatic hydrocarbon enables them to differentiate between aliphatic and aromatic compounds.
BS1CH03/21	ORGANIC CHEMISTRY	Enables students to have a basic approach on the mathematical concept required for the chemist.
		Gaseous state and liquid state chemistry give idea about gas behaviour and various laws regarding this and also properties of liquids.
		Colloids and surface chemistry, solid state chemistry, kinetics and catalysis gives the physical and mathematical aspects of chemistry.
		In solid state chemistry students are enabled to learn the symmetry, space group, crystal systems, and the properties of crystals.
		Chemical kinetics enables the student to know the physical properties of a chemical reactions.
		It includes the rate law, rate of reactions, order of reactions, as well as the catalytic effect on the chemical reactions.
BS2CH01/21	INORGANIC CHEMISTRY	Enable student to understand chemistry of transition series elements.
		Enable to know the oxidation and reduction phenomenon and its applications. Also enable to know the introductory of co-ordination compounds.
		Enable to know the chemistry of the co-ordination compounds.
		Enable to understand the chemistry of Lanthanides and Actinides
		Enable to understand concepts of acids and bases, reactions in non-aqueous solvents with special reference to liquid ammonia and Sulphur dioxide.
BS2CH02/21	ORGANIC CHEMISTRY	Enable students to learn the chemistry of organic halides.
		Enable to understand the preparation, chemical properties of alcohols and phenols.
		Enable to understand the preparation, chemical properties of aldehydes and ketones
		Enable to understand the preparation, chemical properties of carboxylic acids and their derivatives..
		Enable to understand the preparation, chemical properties of organic compound of nitrogen
BS2CH03/21	PHYSICAL CHEMISTRY	Enable students to understand use of units and notation in thermodynamics.
		Enable to understand the phase equilibrium and different phase systems.
		Also enable to understand concepts of entropy, enthalpy, reversibility and irreversibility
		Enable to understand first second and law of thermodynamics and other thermodynamic properties.

		<p>Enable to understand the physical phenomenon of photochemistry,</p> <p>Enable to know the process, concepts and theories of chemical equilibrium and ionic equilibria</p>
BS3CH01/21	INORGANIC CHEMISTRY	Enable student to know the meaning of various terms involved in co-ordination chemistry. To understand the limitations of valence bond theory. Also enable to understand the crystal field theory and crystal field splitting in octahedral, tetrahedral and square planar complexes.
		Enable to understand the reason of magnetic properties, magnetic susceptibility, L-S coupling, magnetic moment of transition metal complexes. Enable to know the classification of organo-metallic compounds, preparation, properties, bonding and application of alkyl and aryl organo-metallic compounds.
		Enable to understand the significance of essential and trace elements in biological processes, the biological role of alkali and alkaline earth metals.
		Enable to classify acids and bases as hard and soft acid and base and Enable to understand Pearson's HSAB concepts. Also enable to learn the silicons, phosphazenes (inorganic polymers), nature of bonding in phosphazenes.
BS3CH02/21	ORGANIC CHEMISTRY	Enable students to know about organometallic compounds, organo-sulphur compounds and organic synthesis via enolates.
		Enable to know about biomolecules in detail viz carbohydrates, proteins and nucleic acids, Enable to know the characteristics of different synthetic polymer and synthetic dyes.
		Enable to learn the fundamental spectroscopy and their applications in chemistry viz mass spectrometry, infrared spectroscopy and UV-Visible spectroscopy.
		Enable to know the Nuclear magnetic resonance spectroscopy, ¹³ C NMR spectroscopy and Magnetic Resonance Imaging (MRI).
BS3CH03/21	PHYSICAL CHEMISTRY	Enable to know the fundamentals of the quantum mechanics viz black body radiation, Planck's law, different quantum mechanical effects, principles, Schrodinger wave equation and their application in the chemistry.
		Enable the students to detail approach in quantum mechanics of different orbital systems and calculation of energy for wave functions.
		Enable the students to know the physical aspects of the spectroscopy viz rotational spectroscopy, vibrational spectroscopy and Raman spectroscopy.
		Enable to learn the electronic spectroscopy and the spectroscopic phenomenon in the photochemistry. Enable the students to know the thermodynamic law and physical properties of molecular structure and different magnetic properties



DEPARTMENT OF COMPUTER SCIENCE

Govt. D. B. Girls P.G. College, Raipur, C.G.

Program Outcomes and Course Outcomes

PROGRAM: B. Sc. (Computer Science Physics, Mathematics)

PROGRAM CODE: BSCMP08

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
BS1CS-01	Computer Fundamental	50
BS1CS-02	Programming in 'C'	50
BS1CS-03	Computer Software (Computer Fundamentals & Programming in C)	50
	Total	150

Second Year:

BS2CS-01	Computer Hardware	50
BS2CS-02	Computer Software	50
BS2CS-03	Computer Software(Programming in C++ & HTML)	50
	Total	150

Third Year:

BS3CS-01	Computer Hardware	50
BS3CS-02	Computer Software	50
BS3CS-03	Computer Software(Programming in Visual Basic) & DBMS (SQL)	50
	Total	150

-----:: PROGRAM OUTCOMES :: -----

As BSc Computer Science (B.Sc CS) is one of the most popular programs in the IT field. After doing this programme students has the potential to propel their career.

It is a consistently growing field with a large variety of job opportunities both in India and abroad as the industry and demand grows. They have a bright opportunity of self entrepreneurship.

It is a three year long program and has been specifically designed for students looking for a career in computers. The course covers all aspects of computers right from the basic fundamentals of computers to database systems & advanced courses like C++, VB etc.

Further the students can choose variety of PG programme also to enhance their skills like MCA, M.Sc IT, M.Sc. CS etc.

PO1-	Learn how to organize information efficiently in the forms of outlines, charts, etc. by using appropriate software. Develop the skills to present ideas effectively and efficiently.
PO2-	Do Academic and Professional Presentations - Designing and delivering an effective presentation and developing the various IT skills to the electronic databases.
PO3-	Use the Systems Analysis Design paradigm to critically analyze a problem. Solve the problems (programming networking database and Web design) in the Information Technology environment. Function effectively on teams to accomplish a common goal and demonstrate professional behavior.
PO4-	Develop IT-oriented security issues and protocols. Design and implement a web page. Improve communication and business management skills, especially in providing technical support. Serve as the System Administrators with thorough knowledge of DBMS.

---: PROGRAM SPECIFIC OUTCOMES :--

PSO1	Understand fundamentals concepts of computational thinking as well as knowledge of how computers and other digital devices are operated through interface as operating system.
PSO2	Be able to think logic of any real problem and able to implement it with programming concept. Student will able to integrate concepts of database, commerce, mathematics and statistics to store, summarize, analyze and interpret data for any real application.
PSO3	Get an appropriate level of oral, written and visual communication skills required for technocrats.
PSO4	Gain a thorough understanding or grasp key technologies for software application development.
PSO5	Apply knowledge and skills to develop software as a “model” or develop an application in the “software as a model” perspective.
PSO6	Understand efficient Query generation and acquire query optimization skills.
PSO7	Understand the concepts of Computer interconnectivity, sharing of resources, internet technologies and other network applications.
PSO8	Understand the electronic commerce and how electronic commerce is affecting business enterprises, governments, consumers and people in general.

---:: COURSE OUTCOMES ::---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BS1CS-01	Computer Fundamental	Basic knowledge of computer system ,its generation, evolution Knowledge of internal architecture of processor(CPU) knowledge of different memory available in computer system learnt about different types of input output devices thoroughly introduction of operating system and software
BS1CS-02	Programming in 'C'	Basic concept of c programming language How to handle control statement and uses of functions how to use and handle array,structure,union and string knowledge about pointers how to handle file in c language and uses of preprocessors
BS2CS-01	Computer Hardware	Internal organization of computer Understand the internal architecture of central processing unit Deep Knowledge of memory organization Working of different types of processors and input output devices Basic knowledge of programming technique
BS2CS-02	Computer Software	How to design web page and different types of elements used in web page designing Learn about How to link different web pages and images Introduction of Object oriented programming got to know about basic concept of object, class and inheritance Basic concept of virtual function so learning the concept of polymorphism
BS3CS-01	Computer Hardware	Basic concept of microcomputer and microprocessor Through details of motherboard and video display Working of ROM BIOS services and Operating system How to handle disk and files under DOS and memory allocation Knowledge about different types of interrupts and filter in DOS
BS3CS-02	Computer Software	Basic knowledge of data and what Data Base management system is and data models Thorough details of RDBMS and how to normalize database How to make database and different types of queries and commands used in sql/plsql Basic knowledge of GUI programming ,working of IDE n file handling in visual basic How to do Database Connectivity with application program and how to create report

Program Outcomes and Course Outcomes

PROGRAM: PGDCA

PROGRAM CODE: PGDCA01

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
PGDCA-101	Fundamentals of Computers	100
PGDCA-102	Office Automation & Tally	100
PGDCA-103	Programming in “C”.	100
PGDCA-104	Practicals based on PGDCA-102 (Office Automation & Tally)	100
PGDCA-105	Practicals based on PGDCA-103 (Programming in “C”)	100
Total		500

Second Year:

PGDCA-106	Programming in VB.Net.	100
PGDCA-107	Database Management System	100
PGDCA-108	Internet and Web Technology	100
PGDCA-109	Practical based on PGDCA106	100
PGDCA-110	Practical based on PGDCA107 and PGDCA 108	100
Total		500

-----: PROGRAM OUTCOMES :: -----

The P.G. Diploma aims to educate student with problem solving using computer science and technologies. It aims to provide technology-oriented students with the ability to develop software solutions and technology. This program develops human resource for IT industries as well as equipped students to start their own business as a software developer, database administrator, programmer, system analyst. After completing the course students come to know about basic knowledge of computer system and variety of computer languages, so after they can apply on multiple companies of their choices and also can apply for further studies like MCA, M.Sc CS etc.

Programme Specific Outcomes (PSOs):

PSO1	Students will be able to understand the evolution and generations of computer, instruction set (RISC and CISC), memory and its organization and types of memory.
PSO2	Students will be able to demonstrate and apply their knowledge of C++, VB.Net and Database programming to develop effective software solutions needed for the government organizations, industrial, societal and environmental application areas.
PSO3	Students will be able to learn principles of management which includes organization, planning, product design, development, maintenance, marketing and project management.
PSO4	Students will be able to demonstrate adequate skills in oral and written communication for technical English language, actively participate in group discussions and interviews and exhibit the evidence of vocabulary building.
PSO5	Students will be able to analyze system by sampling and investigating hard data. Also students will be able to identifying, forecasting/ comparing cost and or benefits for system under study.
PSO6	Students will be able to understand data communication concepts and its applications. Network architecture, transmission of data, OSI models, layers and protocols study equipped students with know-how on troubleshooting in computer hardware and network related issues.

---:: COURSE OUTCOMES ::---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
PGDCA 101	Fundamentals of computer	<p>Basic introduction of computer</p> <p>Deep knowledge of different types of computer peripherals</p> <p>Introduction Of CPU and its components with details of storage devices</p> <p>Concept of different types of software's and computer languages</p> <p>Details of LINUX Operating system and commands</p>
PGDCA 102	Office Automation and tally	<p>How to create document using MS word and using different menus so that students able to create their own documents</p> <p>Apply standard statistical inference procedures to draw conclusions from data in MS excel</p> <p>They came to know how to present their views through multimedia using MS PowerPoint</p> <p>Retrieve information and create reports from databases and determine effective ways of securing, managing and transferring data through MS access</p> <p>Accounting software to maintain company accounts ,recording financial transaction,preparing annual statements</p>
PGDCA 103	Programming in 'C'	<p>Basic concept of c programming language through which learnt about basic things of programming</p> <p>How to handle control statement and uses of functions to understand about flow of programs</p> <p>How to use and handle array, pointers and string</p> <p>knowledge about structure and union so that memory can be used in very efficient way</p> <p>how to handle file in c language and utilization of memory through dynamic memory allocation</p>
PGDCA 106	Programming in VB.net	<p>NET framework is used to create and run software application</p> <p>To create MDI application, different controls to meet users requirement</p> <p>Get to know about flow of control of programs and dealing with exceptions of programs and solving errors</p> <p>GUI is a form of user interface that allows users to interact with devices through graphical icons</p> <p>Apply standard statistical inference procedures to draw conclusions from data</p> <p>Retrieve information and create reports from relational databases.</p>
PGDCA 107	Database Management System	<p>To get details about what data is how we get knowledge from data and make database and different database languages</p> <p>ER diagram are used to model and design relational database in terms of logic and business rule</p> <p>Relational database is a actual implementation of database through which we retrieve, manipulate data</p> <p>Normalization is a process of eliminate data redundancy in database so that data will in managing form</p> <p>SQL enables users to create,read,update,retrieve and delete relational database and tables</p>
PGDCA 108	Internet and Web Technology	<p>Calculating numeric conversions between binary, decimal and hexadecimal base numbers related to memory addresses, memory data type representation.</p> <p>Internet evolution and its various application area and how the internet service provider works</p> <p>how it works via different protocols</p> <p>Design basic business web pages using current HTML/CSS coding standards.</p> <p>Analyse techniques to determine effective ways of securing and managing data.</p> <p>E-commerce is conducted using variety of application and their different areas of usage.</p>

PO7-	The students will be able to ethically recognize different value systems, understand the moral dimensions of individual decisions and accept responsibility for them.
PO8-	The students will be able to recognize the issues of environmental perspectives and appreciate sustainable development for long term environmental sustainability..
PO9-	The students will be able to engage themselves in life-long self-determining and learning in the comprehensive background of socio-technological changes for continued self-directed and life-long learning.

---: PROGRAM SPECIFIC OUTCOMES :---

PSO1	The students after the completion of this programme will become well versed with financial accounting.
PSO2	The students after the completion of this programme will become well versed with business communication.
PSO3	The students after the completion of this programme will be able to understand business mathematics.
PSO4	The students after the completion of this programme will be able to understand business regulatory framework.
PSO5	The students after the completion of this programme will be able to identify a business environment.
PSO6	The students after the completion of this programme will be able to understand the economics of a business.
PSO7	The students after the completion of this programme will be able to understand the essentials of corporate accounting.
PSO8	The students after the completion of this programme will be able to understand the essentials of company law.
PSO9	The students after the completion of this programme will be able to understand the essentials of cost accounting.
PSO10	The students after the completion of this programme will be able to understand the principles of business management.
PSO11	The students after the completion of this programme will be able to understand the essentials of business statistics.
PSO12	The students after the completion of this programme will be able to understand the fundamentals of entrepreneurship.
PSO13	The students after the completion of this programme will be able to understand the principles of direct taxation income tax.
PSO14	The students after the completion of this programme will be able to recognize the procedures of auditing.
PSO15	The students after the completion of this programme will be able to understand the essentials, principles and procedures of indirect taxation.
PSO16	The students after the completion of this programme will be able to understand the essentials of management accounting.
PSO17	The students after the completion of this programme will be able to understand the fundamentals of insurance.
PSO18	The students after the completion of this programme will be able to understand the essentials of banking and money management.

DEPARTMENT OF COMMERCE
Govt. D. B. Girls P.G. College, Raipur, C.G.

Program Outcomes and Course Outcomes

PROGRAM: B.Com

PROGRAM CODE: BCOM01

SCHEME OF PROGRAM AT A GLANCE

First Year:

Course	Course title	Theory Course
		Max Marks
BC1GI01/21	FINANCIAL ACCOUNTING -I	75
BC1GI02/21	BUSINESS COMMUNICATION	75
BC1GII01/21	BUSINESS MATHEMATICS	75
BC1GII02/21	BUSINESS REGULATORY FRAME WORK -II	75
BC1GIII01/21	BUSINESS ENVIRONMENT - I	75
BC1GIII02/21	BUSINESS ECONOMICS - II	75
Total		450

Second Year:

BC2GI01/21	CORPORATE ACCOUNTING	75
BC2GI02/21	COMPANY LAW	75
BC2GII01/21	PRINCIPLES OF BUSINESS MANAGEMENT	75
BC2GII02/21	COST ACCOUNTING	75
BC2GIII01/21	BUSINESS STATISTICS	75
BC2GIII02/21	FUNDAMENTALS OF ENTREPRENEURSHIP	75
Total		450

Third Year:

BC3IT01/21	INCOME TAX	75
BC3IT02/21	INDIRECT TAX	75
BC3MAC01/21	MANAGEMENT ACCOUNTING	75
BC3AU01/21	AUDITING	75
BC3MA01/21	MARKETING AREA	75
BC3MA02/21	MARKETING AREA	75
Total		450

-----: PROGRAM OUTCOMES :: ----

PO1-	The students after the completion of this programme will be enabled to overcome the challenges and cash in the opportunities in the field of commerce.
PO2-	The students after the completion of this programme will become well prepared to take up various professional assignments, engagements and jobs in medium to large scale business establishments, industries, commercial set-ups and other public/private commercial sectors like banking, stockexchange, insurance, NBFCs as accountants, investment bankers, business analysts, finance officers, business / financial advisors etc.
PO3-	The students will be able to think critically and take informed decisions after identifying the accuracy and validity of their assumptions and ideas from intellectual, organizational, and personal perspectives.
PO4-	The students will be able to communicate effectively through speaking, reading, writing and listening clearly in one Indian language and thereby express themselves to the world by connecting with different ideas, books, people, media and technology..
PO5-	The students will be able to interact socially and stimulate views, reconcile disagreements and help reach consensual conclusions.
PO6-	The students will be able to demonstrate compassionate social concern and act with cognizant awareness of issues to contribute in civic life by volunteering impartially towards national development and thereby deliver effective citizenship.

---:: COURSE OUTCOMES ::---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BC1GI01/21	Fianancial Accounting	To Learn basic accounting Knowledge as applicable to business..
		Knowledge about preparation of Final Accounts.
		Knowledge about concept of Depreciation and non trading institutions accounting.
		Knowledge about concept of Hire Purchase System and Installment System of purchase.
		To Enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting.
BC1GI02/21	Buissness Communication	Knowledge about basic communication skills,
		Knowledge about corporate communication skills.
		Knowledge about concept writing reports.
		Knowledge about concept of varioius report writing.
		Knowledge about the various form of communication, new trends in business communication, various media of communication and communication devices.
BC1GII01/21	Buisness Mathematics	Knowledge about Simultaneous Equations and Linear Progammimg.
		Knowledge about Matrices , Determinants and Logarithm's.
		Knowledge about Simple Interest and Compound Interest.
		Knowledge about Ratio , Proportion, Average and Percentage.
		Knowledge about Commission , Brokerage ,Profit and loss.
BC1GII02/21	Buissness Regulatory Framework	Knowledge about basic of Law of Contract.
		Knowledge about Special Contracts Indemnity,Gurantee,Bailment and Pledge,Agency.
		Knowledge about Sale of Goods Act.
		Knowledge about Negotiable Instruments.
		Knowledge about Consumer Protection Act and Intellectual Property Right Act.
BC1GIII01/21	Buisness Environment	Knowledge about basic Concept of Business Environment.
		Knowledge about Problems of Growth, Unemployment, poverty Regional Imbalances And Social Injustice.
		Knowledge about policies of Government.
		Knowledge about Economic Planning in India.
		Knowledge about International Business Environment.
BC1GIII02/21	Buissness Economics	Knowledge about Micro and Macro Economics and Utility Analysis.
		Knowledge about Law of Demand.
		Knowledge about Concepts Related to Production.
		Knowledge about Various Market Structures.
		Knowledge about the Theories of Distribution , Wages ,Rent ,Interest and Profit.
BC2GI01/21	Corporate accounting	Knowledge about the share and debenture affairs of company.
		Knowlegdge about the final accounts and liqudation of company.
		Learning about valuvation of goodwill and share.
		Knowledge about the amalgamation and recontruction of company.
		Knowledge about the holding and subsidiary company affairs and banking company transaction.
BC2GI02/21	Cost accounting	Basic knowledge about the costing, cost and material control.
		Knowledge about accounting for labour and overheads.
		Knowlegde about unit, job, batch and contract costing.
		Knowlegde about operating costing and process costing.

		V Knowledge about cost records and break even analysis
BC2GII01/21	Principle of business management	Knowledge about the all concept of management and tools of management.
		Learning about planning and decision making.
		Learning about organization and orgainzing structure
		learning about motivation, leadership and communication qualities.
		knowlegde about managerial control and management of change.
BC2GII02/21	Company law	Knowledge about companies Act 1956
		Knowledge about main document of comapany like MOA, AOA act.
		learing about capital management of comapany and role of directors.
		Knowledge about company meetings.
		Knowledge about minority rights and majority powers of companies member
BC2GIII01/21	Business statistics	Basic knowledge about statistics, university of data, frequency distribution and cocept of central tendency.
		Knowledge about tools of depersion.
		Knowledge about linear regression and correlation.
		Knowledge about index number.
		Learning about forecasting and law of probability.
BC2GIII02/21	Fundamentals of entrepreneurship	Knowledge about theories of entrepreneurship.
		Learning about pramotion of venture.
		Learing about enterpreneurial behavior.
		Knowledge about enterpreneurial development programs.
		Knowledge about role of entrepreneur.
BC3IT01/21	Income Tax	Knowledge about the Basic concepts of Income Tax and Agricultural Income.
		Knowledge about Income From Salary and House Property.
		Knowledge about Income from Business or Profession; Capital Gain and Other Sources.
		Knowledge about the Calculation of Total Income and Tax Liability.
		Knowledge of Tax Planning and Tax Administration.
BC3IT02/21	Indirect Tax	Knowledge of Central Excise and its Calculation
		Knowledge about State Excise Duty
		Knowledge about Custom Duty
		Knowledge of Central Sales Tax
		V Knowledge of Chattisgarh Commercial Tax
BC3MAC01/21	Management Accounting	Basic knowlegde about Management Accounting and Ratio Analysis
		Learning about Fund and Cash Flows
		Knowledge of Marginal Cost
		Knowledge about Budgetry Control and Flexible Budget
		knowlegde about Standard Costing
BC3AU01/21	Auditing	Basic knowlegde about Auditing.
		Knowledge of Internal Checking and Control.
		Knowledge Regarding Audit of different Limited Companies
		Knowlegde of Investigation
		Knowlegde of Recent Trends in Auditing and Auditor.
BC3MA01/21	Principles of Marketing	Knowledge of Basic Marketing Concept
		Knowledge of Consumer Behaviour and Market Segmentation.
		Knowledge about the concept of Product

		Knowledge of Distribution Concept
		Learning of the concept of Promotion.
BC3MA02/21	International Marketing	Basic knowledge of International Marketing
		Knowledge about Foreign Market
		Knowledge about Promotion of Product/Services Abroad
		Knowledge of International Distribution
		Knowledge of Export Import Policy



FACULTY OF HOME SCIENCE

Government D. B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: B.Sc. Home Science (Traditional)/Vocational

PROGRAMME CODE: BSHT/BSHVO

SCHEME OF PROGRAMM :AT A GLANCE

Programme	Course	Core Course	Elective Course
UG (BSH01)	BSH1GB01	Textile And Clothing	Textile science
	BSH1GB02	Community Development	Colour theory and concept
UG(BSH02)	BSH2GB01	Textile And Fibre Science	Introduction to Fashion Illustration and Model
	BSH2GB02	Communication Process	Design Ideas in Garments
UG(BSH03)	BSH3GB01	Apparel Making and Clothing construction	Marketing & Sales Management
	BSH3GB02	Extension Education	Clothing Construction & Fashion Designing

PROGRAMME OUTCOMES

Home Science is a science-oriented, multidisciplinary subject which encompasses the multifarious activities that occur in families, households, and communities. Over years, the discipline has evolved and expanded to encompass activities and services of relevance, not only to the micro contexts of the family and community, but also to the macro context of the larger society. Home Science is both multidisciplinary and interdisciplinary in its context encompassing the five major disciplines of Family Resource Management, Foods and Nutrition, Textiles and Clothing, Human Development, and Extension and Education. Each discipline has one or more specific areas of specialization.

These students would be strongly able to make up their bright career in different fields such as higher education for teaching & research, civil services, corporate and /or industry / job, entrepreneurship and other private sectors after completion of this program -

PO-1	Disciplinary knowledge and skills: Capable in demonstrating basic theoretical and practical knowledge and understanding in subjects like: a) Textiles and Clothing- from Textile Chemistry and Engineering, Fine Arts, Textile designing, Garment production industries, Apparel retailing and merchandizing, Fashion Design, History. b) Extension and Communication- from Social work, Journalism, Mass Communication, Media production and promotion, Theatre, Law, Film Making. c) Food and Nutrition- from Physiology, Biology, Nutrition, Chemistry, Biotechnology, Microbiology, Dietetics, Medicine, Extension.
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	<p>d) Resource Management- from Resources, management, Architecture, Consumer, Economics, Commerce, Civil Engineering, Environment, Fine Arts, Design , Social Work, Law, Ergonomics , Physiology, Interior Design.</p> <p>e) Human Development - from Psychology, Sociology, Social Work, Pediatrics, Anthropology.</p>
PO-2	<p>Effective Communicator: Ability to communicate precisely, confidently and with clarity among the rural and urban communities using attention seeking media on the various educational topics for creating awareness and making better lives .Competency to express thoughts and ideas through folk media, Social media, print media, PPT's, role plays ,displays and exhibitions along with oral and writing skills.</p>
PO-3	<p>Critical thinking:Analytical reasoning and Problem solving : Ability to employ critical thinking in identifying the problem, developing analytical skills and capabilities to resolve the problems efficiently related to all the five specific areas on a tailor made basis for a client, customer, an individual , family and society either independently or with the support of concerned authorities .</p>
PO-4	<p>Research and Scientific reasoning: Skills in undertaking small researches by way of Term paper, Case Studies, Market Surveys, Field visits, Laboratory Experiments etc. on the related topics/ problems of the discipline and arrive at the results based on the scientific reasoning wherever applicable.</p>
PO-5	<p>Cooperation/ Team Work: Capability of working enthusiastically and united with the working teams in organizing events in the Department/ Faculty/ University/ Community, and accomplishing group work/ assignments / tasks by willing cooperation of all and well-coordinated group living through during educational visits.</p>
PO-6	<p>Reflective thinking: Ability to practice empathy and objectivity in dealing with the personal and community interactions and problems.</p>
PO-7	<p>Digital Literacy: Competency in accessing relevant and authentic information and data from electronic media with a motive to learn and synthesize it on the given topics in Home Science discipline for academic and extension work presentation and to prepare computer aided designs by using the needed software's.</p>
PO-8	<p>Self-directive learning: Potential to complete the assigned projects successfully either at Residential / Commercial level or Community level by managing the resources independently and wisely.</p>
PO-9	<p>Multicultural competence: Ability to learn about different cultures by way of practicing traditions, traditional cooking, ethnic designing and stitching, developing itineraries, and making traditional arts.</p>
PO-10	<p>Effective Citizenship: Responsible for learning, develop honesty in work and respect for self and others. Function effectively as an individual member or leader in diverse teams and in multidisciplinary settings towards the development of the society or nation</p>

PSO OF HOME SCIENCE

Resource Management

PSO1.Exhibit efficient resource use potentials at home and work

PSO2.Showcase domain specific role clarity

PSO3.Shine as competent graduates

PSO4.Appreciate nuances of value

FOOD AND NUTRITION

PSO1. Enable to pursue higher education and research

PSO2. Understand the role of food and nutrition for the welfare of the community

PSO3. Excel in the area of personal and public health nutrition

PSO4. Apply skill-based knowledge in food industry

PSO5. Acquire entrepreneurial skills in the field of food science and nutrition

TEXTILE AND CLOTHING

PSO1. Gain knowledge in textile production techniques

PSO2. Acquire skill in textile dyeing and printing

PSO3. Equipped with skills required become a fashion designer

PSO4. Acquire dexterity in design, surface enrichment and apparel construction

PSO5. Develop entrepreneurial skills in textiles and fashion

HUMAN DEVELOPMENT

PSO1.Describe how individuals develop and change from womb to tomb

PSO2.Relate the principles of human development with self, family and society

PSO3.Apply methods of teaching and training towards administration of early learning centres

PSO4.Appraise and identify life situations in need of referral services

PSO5.Manage life crisis at every stage of life span

EXTENSION EDUCATION

PSO1. Acquire knowledge, skill and attitude to work with the communities

PSO2. Get sensitized on the issues of society

PSO3. Impart skill training programmes

PSO4. Explain and use sociological concepts and theories

PSO5. Compile , interpret and analyse data of social systems

COMMON PSOS OF HOME SCIENCE

On completion of the specific programme (Regular in Home Science) following are the outcomes expected from students:

- I. Describe and analyze the discipline of Home Science as a holistic field of study covering multiple facets and requirements of human beings in day to day living, for example, achievement of appropriate milestones in personal development; awareness, need and use of family resources; access to adequate nutrition for wholesome development; clothing fundamentals and advances; and effective strategies for community extension and communication.
- II. Demonstrate skills/talents and proficiency in specialized areas of study.
- III. Demonstrate proactive networking in specific areas of study involving significant stakeholders including professionals, researchers, and public service personnel.
- IV. Address concern for the community (urban, rural and tribal) with genuine sensitivity and dedicate transferable knowledge and research findings for the benefit of the community.
- V. Develop sensitivity, resourcefulness, and competence to render service to enhance development of individuals, families, communities, and the nation at large.
- VI. Manifest a wide range of knowledge regarding sources of data (information) collection and transfer enabling exchange of ideas and notions; access to resources including e-resources and libraries; trends in knowledge gaining and transfer (teaching- learning processes); techniques of skill acquisition and understanding existing basic issues related to the disciplines in Home Science and methods to resolve and ratify them.
- VII. Demonstrate interest in engaging in active need based, innovative and community-oriented research using appropriate methods, collect and process data and present

evidence-based solutions and defend arguments related to the field of research in Home Science.

VIII. Analyze and apply research findings for the use of societal needs and contribute to nation building strategies.

IX. Demonstrate inclination toward acquiring knowledge and doing in-depth studies on allied subjects of Home Science, for instance Ergonomics in Resource Management; Chemistry in Textiles and Clothing.

X. Demonstrate abilities involved in acting as proactive agents of change in promoting the discipline of Family and Community Sciences.

XI. Explore and decide upon viable avenues of self-employment and entrepreneurship plus career options in different facets of Home Science disciplines.

XII. Demonstrate ethical values in scholarship and social applications.

COURSE OUTCOMES

Course Code	Course Name	Course Out Comes
BSH1GA01	Basic Nutrition	I- They will be familiar to basic terminologies used in foods and nutrition.
		II-They will understand the functions of food and the role of various nutrients, their requirements and the effects of deficiency and excess.
		III-They will Learn about the structure, composition, nutritional contribution and selection of different foodstuffs, be familiar with the different methods of cooking, their advantages and disadvantages and they will develop an ability to improve the nutritional-quality of food up to 1st year.
		IV- Develop an ability to improve the nutritional-quality of food.
		V-They will be able to learn about how to improve the quality of food
		They will learn to measure the raw and cooked food, they will prepare foods as per recipe
BSH1GA02	Introduction to Resource Management	I-It will create awareness among the students about, management in the family as well as the other systems.
		II- To recognize the importance' of wise use of resources in order to achieve goals.

		III-The physical environment and its components and the major issues
		IV-They will learn about the impact of human, activities on environment
		V-They will learn about the action needed for checking environmental threats
BSH1GB01(A)	Textile And Clothing	I-To acquaint with proper notion regarding choice of fabrics
		II-Learn and develop skills in clothing construction
		III-To acquaint with different textiles and their performances
		IV-they will Impart knowledge on different textiles finishes
		V-They will be able to understand all about printing
BSH1GB01(B)	Textile Science	I-To acquaint with proper notion regarding choice of fabrics
		II-Learn and develop skills in clothing construction
		III-To acquaint with different textiles and their performances
		IV-they will Impart knowledge on different textiles finishes
		V-They will be able to understand all about printing
BSH1GB02(A)	Community Development	I-To be aware of the approaches to development
		II-Develop faith in the capacity of the people, to take responsibility for their own development.
		III-Student will Understand the existing support structures for development efforts.
		IV-Students will Understand the role of non Govt organizations in community development.
		V-Understand the socio - economic structures and systems that make up the rural and urban communities.
BSH1GB02(B)	Colour theory and concept	I - To develop skill and knowledge Element of Design, Principles of Design and Colour theories.
		II – Know about Colour wheel and Different design.
		III – To know and Colour Schemes.
		IV – To know the different prints.
		V – To know about the different types of texture and print enlargement.
BSH1GC01	Introduction To Human Development	I-This is an attempt to guide under graduate human development in a basic way.
		II-They will learn about the physical and motor development
		III-Acquire knowledge and in insights about the dynamics of contemporary marriage and family system of India.
		IV- They will be able to understand basic of cognitive development

		V-Socio-emotional Development Across the Life Span
BSH1GC02	Personal Empowerment & Computer Basic	I-Student will learn about Personal Growth and Personality Development
		II-The student will aware of the role of empowerment of women from the perspectives of personal and national development;
		III-Learn the relation of Home Science Education as Empowerment
		IV-Some Significant Contemporary Issues of Concern-gender,
		V-The student will know the basics of computers and will be use computers for education, information and research
BSH2GA01	Clinical Nutrition and Dietetics	I-They will learn about basics of Health & Nutrition
		II-The student will Understand the concept of an adequate diet and the importance of meal planning
		III-They will learn principles of diet therapy
		IV-They will learn about etiology, symptoms about few diseases
		V-Gain knowledge about dietary management in NCD
BSH2GA02	Human Physiology and Community Nutrition	I-The student will understand the basics of physiology
		II-Students will able to understand about the structure and functions of digestive and nervous system
		III-Student will able to understand the excretory and respiratory system and their functions,
		IV-Student will able to understand thereproductive system
		V-Learn about basics of community nutrition their functions
BSH2GB01(A)	Textile and Fibre Science	I-Students will able to understand about the basic of laundry, textiles, fibres
		II-Learn about starches, blue, bleaches etc
		III-Students will be able to understand about dry cleaning
		IV- Students will understand the clothing construction,
		V- Student will learn about basics of tailoring
BSH2GB01(B)	Introduction to Fashion Illustration & Model	I – To know about the Fashion theories, trends and fashion industry.
		II – To know the Anatomy of human body , Figure problems and deformity
		III – Principle of figure drawing and sketching body figures.
		IV- To know about Figure Head Theories. Drawing of human form

		in different angles.
		V- To know about the Silhouettes, Rendering of figures in different postures and sketching styles
BSH2GB02(A)	Communication Process	I-The students will able to understand the concept of development communication process
		II-The students will understand the meaning of communication
		III-The students will understand the methos of communication
		IV-Learn about role play, poster, film
		V-They will learn skill to use the media
BSH2GB02(B)	Design Ideas in Garments	I – To know about the Body measurements and Pattern making.
		II – To know the Basic paper pattern, layouts and cloth estimation for Different garments.
		III – To know about the different types of Collars and Necklines.
		IV- To know about the Tucks, pleats, Seams and gathers.
		V- To know about the Yolk and sleeves.
BSH2GC01	Life Span Development	I-Learn the need of study life span development
		II-Learn all about adolescence
		III-Learn all about adulthood
		IV-Learn about infancy
		V-Learn about creativity
BSH2GC02	Consumer Economics	I-Learn basic of consumption economics
		II-They will able to understand the Consumer income
		I- The student will able to understand all about market
		IV-Learn about protection services
		V-They will understand consumer decision making
BSH3GA01	Nutritional Biochemistry	I-Student will understand the basics of biochemistry
		II-students will able to understand the basic of lipid
		III-students will able to understand the basic of proteins
		IV-students will able to understand the basic of Hormones
		V-Students will able to understand the corelation of biochemistry with energy.
BSH3GA02	Food Preservation	I-They will understand the basic behind the food preservation
		II-Learn about fresh food storage
		III-Learn all about pasteurization
		IV-Students will learn about the methods of food preservation
		V-Students will learn the methods of food preservations
BSH3GB01(A)		I-The student will learn to make pattern

	Apparel Making & Clothing Construction	II-they will understand about the basic of principle of design
		III-They will learn about fashion
		IV-They will learn the principles of fullness
		V-Learn about Fundamentals of Embroidery
BSH3GB01(B)	Marketing and Sales Management	I – To know about the Marketing, Standardization & Grading, Product life cycle.
		II – To know the Pricing policies, Sales promot in and salesmanship
		III – To know about the different types of Collars and Necklines.
		IV- To know about the Channels of distribution, Advertisement and
		V- To know about the Entrepreneurship and Self-employment.
BSH3GB02(A)	Extension Education	I-They will understand the basics of extension education
		II-They will learn the basics of adult education
		III-They will learn to use various techniques of food production
		IV-Learn about programmes related to women and child
		V-They will learn how to prepare docs for Advertisement
BSH3GB02(B)	Clothing construction & fashion designing	I – To know about the clothing, personality and costumes of Ancient & Modern age.
		II – To know the Garment making, Industrial machine and fitting.
		III – To know about the Principles of General & Commercial tailoring, Pattern making, pattern alteration & dart manipulation.
		IV- To know about the Drafting & draping, trimming materials,Ornamentation techniques and traditional embroidery
		V- To know about the Different states' costumes, jewelry & accessories for man & women, marriage and dance costumes.
BSH3GC01	Early Childhood Education	I-To know importance of early childhood care and significance of intervention programmes to early child development
		II-Learn about scope of ECE to ECCE
		III--Meaning of curriculum, Foundation of. curriculum development.
		IV--Goals of language teaching
		V-Learn about project design
BSH3GC02	Foundation of Art and Design	I-Student will able to understand the principles of designs and elements of arts
		II-Indian, regional, traditional and contemporary arts and their use

		III-Family housing needs
		IV-Financial Considerations
		V-Learn all about furniture



Government D. B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: BPED01

PROGRAMME CODE: BPED

SCHEME OF PROGRAMM :AT A GLANCE

Course Code	Course Title
BPED 101	HISTORY, PRINCIPLE AND FOUNDATION OF PHYSICAL EDUCATION
BPED 102	ANATOMY AND PHYSIOLOGY
BPED 103	HEALTH EDUCATION AND EN-VIRONMENTAL STUDIES
BPED 104	OFFICIATING AND COACHING
BPED 105	TRACK AND FIELD (RUNNING EVENTS)
BPED 106	SWIMMING/GYMNASTICS/SHOOTING
BPED 107	INDIGENOUS SPORTS KABADDI/MALKHAMBH/LEZIM/MARCH PAST
BPED 108	MASS DEMONSTRATION ACTIVITIES: KHO-KHO/DUMBBELLS/TIPRI/WANDS/HOOP/UMBRELLA
BPED 201	YOGA EDUCATION
BPED 202	EDUCATION TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION
BPED 203	ORGANIZATION AND ADMINISTRATION IN PHYSICAL EDUCATION
BPED 204	SPORTS NUTRITION AND WEIGHT MANAGEMENT
BPED 205	TRACK AND FIELD (JUMPING EVENTS)
BPED 206	YOGA/AEROBICS/SWIMMING/GYMNASTICS
BPED 207	RACKET SPORTS: BADMINTON/TABLE TENNIS/SQUASH/TENNI
BPED 208	TEACHING PRACTICES
BPED 301	SPORTS TRAINING
BPED 302	COMPUTER-APPLICATIONS IN PHYSICAL EDUCATION
BPED 303	SPORTS PSYCHOLOGY & SOCIAOLOGY
BPED 304	SPORTS MEDICINE, PHYSIOTHERAPY AND REHABILITATION
BPED 305	Track and Field (Throwing Events)
BPED 306	Martial Art/ Karate/ Judo/ Fencing/ Boxing/ Taekw
BPED 307	Baseball/Cricket/ Football/Hockey/Softball/Volleyball
BPED 308	Teaching Practice
BPED 401	MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION
BPED 402	KINESIOLOGY AND BIOMECHANICS
BPED 403	RESEARCH AND STATISTICS IN PHYSICAL EDUCATION
BPED 404	SPORTS MANAGEMENT
BPED 405	TRACK AND FIELD /SWIMMING / GYMNASTIC
BPED 406	KABADDI/ KHO-KHO/BASEBALL/ CRICKET /FOOTBALL /HOCKEY
BPED 407	SPORTS SPECIALIZATION: COACHING LESSONS PLANS
BPED 408	GAMES SPECIALIZATION: COACHING LESSONS PLANS

PROGRAMME OUTCOMES

Courses in Physical education help individuals to become physically fit, develop character, learn skills and become knowledgeable about sport. Physical education modifies individuals in well-rounded people. This includes developing muscle strength, endurance, flexibility, agility and healthy competence. Physical education programmes also develop the characteristics of leadership among the students. Academic programmes of physical education also provide job opportunity to the students.

PROGRAMME SPECIFIC OUTCOMES

To prepare students as qualified leaders in the field of Physical Education and Sports.

PSO1	Understand the Inter-disciplinary nature and basic concepts of Physical Education and Sports.
PSO2	To understand the need and importance of physical activities for physical, mental, social and personal health and well-being of an individual.
PSO3	Perform and understand the fundamental skills of various sports such as Hockey, Football, Basketball, Volleyball, Athletics and Yoga.
PSO4	To promote mass participation in the Physical Education and Sports.
PSO5	To prepare students as qualified leaders in the field of Physical Education and Sports.

COURSE OUTCOMES

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
BPED 101	History, principles and foundation of physical education	Understand the History, principles and foundation of physical education
BPED 102	Anatomy and physiology	Understand the human body and its structure and functions
BPED 103	Health education and Environment studies	Understand the health problems and their sources
BPED 104	Officiating and Coaching	Understand the duties of officials and coaches and their qualities
BPED 105	Track and field (running events)	Understand the skills, rules and their interpretation
BPED 106	Swimming / Gymnastics / Shooting	Understand the skills, rules and their interpretation
BPED 107	Indigenous sports: Kabaddi / Malkhambh / lezim / March past	Understand the skills, rules and their interpretation
BPED 108	Mass demonstration Activities: Kho-Kho / dumbbells / tipri / wands / hoop/ umbrella	Understand the skills, rules and their interpretation

BPED 201	Yoga education	Understand the yoga, importance and their uses our daily life and sports
BPED 202	Educational technology and methods of teaching in P.E.	Understand the teaching technique, aids and methods
BPED 203	Organization and Administration in Phy. Edu.	Understand the concept of organization and administration in sports and phy. Edu.
BPED 204	Sports Nutrition and weight management	Understand the basic nutrition and sports nutrition and planning of weight management
BPED 205	Track and field (jumping events)	Understand the skills, rules and their interpretation
BPED 206	Yoga / aerobics / Swimming / Gymnastics (any one)	Understand the skills, rules and their interpretation
BPED 207	Racket sports: Badminton/ Table tennis/ Squash/ Tennis Teaching practice (classroom and outdoor)	Understand the skills, rules and their interpretation
BPED 208		Learn and develop to teaching skills and techniques
BPED 301	Sports Training	Understand the training components, process and planning in sports
BPED 302	Computer application in Phy. Edu.	Understand the computer and uses application (MS office)
BPED 303	Sports psychology and sociology	Understand the sports psychology and sociology in different games or areas
BPED 304	Sports medicine, physiotherapy and rehanlitation	Understand the how to use different type of medicines and therapies in sports
BPED 305	Track and field (throwing events)	Understand the skills, rules and their interpretation
BPED 306	Combative sports: Martial art, Karate, Judo, Fencing, Boxing, Taekwondo, Wrestling (any two)	Understand the skills, rules and their interpretation
BPED 307	Team game: Baseball, Cricket, football, Hockey, softball, Volleyball, Handball, Basketball, Netball (any two)	Understand the skills, rules and their interpretation
BPED 308	Teaching practice	Learn and develop to teaching skills and techniques
BPED 401	Measurment and Evaluation in Phy. Edu.	Understand the Measurment and Evaluation of physical fitness and sports skills
BPED 402	Kinsiology and Biomechanics	Understand the Mechanical concept, kinematics and kinetics of human movements
BPED 403	Research and Statistics in Phy. Edu.	Understand the Research proccess, Statistics and basics of statistical analysis
BPED 404	Sports management	Understand the concept, leadership qualities of sports management and sports management in school, college and University

BPED 405	Track and field/ Swimming/ Gymnastics (any one)	Understand the skills, rules and their interpretation
BPED 406	Kabaddi, Kho-Kho, Baseball, Cricket, Football, Hockey, softball, Volleyball, Handball, Basketball, Netball, Badminton, Table tennis, Squash, Tennis (any one)	Understand the skills, rules and their interpretation
BPED 407	Sports specialization: coaching lesson plan	Learn and develop to teaching skills and techniques
BPED 408	Sports specialization: coaching lesson plan	Learn and develop to teaching skills and techniques



FACULTY OF ECONOMICS

Government D. B. Girls Postgraduate College, Raipur

Programme: M.A -Economics

PROGRAMME CODE: MAECO01

Programme Outcomes (PO)

PO1	The M.A. Economics semester wise programme offered by the College accomplishes the students to cash in on the opportunities and overcome the challenges in the field of economics by providing systematic learning of Economics – Micro, Macro, Quantitative, Indian, Industrial, Research, Indian policy, Labour, Growth, International, Public, Environmental, Demography, Development & Planning, Social sector and Viva-Voce. The students after the completion of this programme become well prepared to take up various professional assignments, engagements and jobs in medium to large scale business establishments, industries, commercial set-ups and other public/private commercial sectors like banking, stock-exchange, insurance, NBFCs as accountants, investment bankers, business analysts, finance officers, business / financial advisors, policy making etc.
PO2	The students after the completion of this programme will be enabled to overcome the challenges and cash in the opportunities in the field of economics.
PO3	The students after the completion of this programme will become well prepared to take up various professional assignments, engagements and jobs in medium to large scale business establishments, industries, commercial set-ups and other public/private commercial sectors like banking, stock exchange, insurance, NBFCs as accountants, investment bankers, business analysts, finance officers, business / financial advisors, policy making etc.
PO4	The students will be able to think critically and take informed decisions after identifying the accuracy and validity of their assumptions and ideas from intellectual, organizational, and personal perspectives
PO5	The students will be able to communicate effectively through speaking, reading, writing and listening clearly in one Indian language and thereby express themselves to the world by connecting with different ideas, books, people, media and technology.
PO6.	The students will be able to interact socially and stimulate views, reconcile disagreements and help reach consensual conclusions.
PO7.	The students will be able to demonstrate compassionate social concern and act with cognizant awareness of issues to contribute in civic life by volunteering impartially towards national development and thereby deliver effective citizenship.
PO8.	The students will be able to ethically recognize different value systems, understand the moral dimensions of individual decisions and accept responsibility for them.
PO9.	The students will be able to recognize the issues of environmental perspectives and appreciate sustainable development for long term environmental sustainability.
PO10.	The students will be able to engage themselves in life-long self-determining and learning in the comprehensive background of socio-technological changes for continued self-directed and life-long learning

Programme Specific Outcomes (PSO)

PSO1.	The students will be able to analyze the Economic Issues related to national and international scenario.
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PSO2.	This programme helps to understand the various Economic Institutions in the world and their working principles.
PSO3.	The curriculum helps to create the capacity to work effectively in a multidisciplinary environment.
PSO4.	The students will be able to find a career in Economics.
PSO5.	The students will be able to understand how economic policies affect the common people through societal interactions.
PSO6.	The students will be able to utilize the research spheres of Economics.
PSO7.	The students will be able to provide suggestions for economic policy.
PSO8.	The student will be geared up for advance studies leading to M.Phil. and PhD.

Course Outcomes (CO)

Course Code	Paper Name	Course Outcome
ECO. 101	MICRO ECONOMIC ANALYSIS	Micro-economics familiarizes the students with fundamental concepts of the subject. By building theoretical foundation, this course prepares students for studying applied courses. It also sets the foundation for an advanced-level course in the later part of the program. It helps in preparing the students for offering economics as an optional subject in civil services and similar examinations. The Outcome of the paper is to analyse the economic behaviour of individuals, firms and markets. It is mainly to equip the students in a rigorous and comprehensive understanding with the various aspects of consumer behaviour and Economic welfare, Firms behaviour and the theory of imperfect markets and equilibrium in different conditions.
		By the end of the course, the student will be able to understand :
		Concept of Equilibrium and theory of price and output determination.
		Equilibrium of producers and consumers.
		Equilibrium of firm in different competitive markets.
		Approaches to equilibrium. Understand how different degrees of competition in a market affect pricing and output.
ECO. 102	MACRO ECONOMIC ANALYSIS	Macro Economics paper provides theoretical foundation of some advanced issues and policies. The paper attempts to discuss the functional relationships between economic aggregates. It helps understand the overall structure of the economy in a theoretical perspective at higher level. By the end of the course, the student will be able to understand :
		Concept of National income and accounts.
		Concept of consumption function.
		Concept of investment function.
ECO. 103	QUANTITATIVE METHODS	Factors affecting demand and supply for money.
		Outcome of this paper is to develop mathematical approach in analysis of economic problems. It mainly focuses on those mathematical techniques which are directly useful in economic analysis. All the techniques are explained with examples of economics. Paper aims to familiarise the students with basic

		<p>statistical techniques. Students should be able to develop knowledge about various statistical tools used for data interpretation. .By the end of the course, the student will be able to understand :</p> <p>Measurement of Skewness and correlation.</p> <p>Measurement of Regression analysis and Interpolation and extrapolation.</p> <p>Measurement of Association of Attributes, measurement of Probability.</p> <p>Measurement of Index Number, Time Series analysis.</p>
ECO. 104 ECO. 101	INDIAN ECONOMIC POLICY	<p>Indian Economy Policy shall provide basic knowledge on national income accountings, various issues involved in agricultural, industrial, financial, trade sectors and public institutions. By the end of the course, the student will be able to understand :</p> <p>GDP and National Income of India – Components and Structure of GDP and National Income,</p> <p>Demographic Features of Indian Population.</p> <p>Agricultural Development in India.</p> <p>Industrial Development in India.</p>
ECO. 105	INDUSTRIAL ECONOMICS	<p>The course for Industrial economics deals with basic concepts of industry, market product, industrial locations and industrial marketing. By the end of the course, the student will be able to understand :</p> <p>Industrialization pattern.</p> <p>Industrial Productivity, Industrial Policy of Chhattisgarh.</p> <p>Industrial Finance - Long Term Funds & Short Term Funds. Organized Capital Market.</p> <p>Industrial Labour and Labour Legislation, Industrial Relation, Labour Welfare & Social Security.</p>
ECO. 201	MICRO ECONOMIC ANALYSIS	<p>This advanced level core-course strengthens theoretical foundations of the subjects and develops deeper understanding among students. It also enhances capacity for understanding applied issues in the subject matter and develops interest in research related issues. By the end of the course, the student will be able to understand :</p> <p>Theories of Price determination in imperfect market</p> <p>Theory of distribution in imperfect market</p> <p>Welfare economics</p> <p>Concept of Equilibrium: static and dynamic equilibrium,</p>
ECO. 202	MACRO ECONOMIC ANALYSIS	<p>Macro Economics paper provides theoretical foundation of some advanced issues and policies. The paper attempts to discuss the functional relationships between economic aggregates. It helps understand the overall structure of the economy in a theoretical perspective at higher level. By the end of the course, the student will be able to understand :</p> <p>Theories and effects of Inflation in economy.</p> <p>Types of Business cycles and main features of Business Cycles,</p> <p>Role of Monetary Policy in economy.</p>

		Role of fiscal Policy in economy.
ECO. 203	RESEARCH METHODOLOG Y AND APPLICATIONS	<p>Paper aims to familiarise the students will have basic statistical techniques. This is a course for studying various methods for conducting social science research. It deals with various approaches, methods, tools and techniques. By the end of the course, the student should be able: .</p> <p>Basic knowledge of research methodology .</p> <p>Basic knowledge of distribution of data, tables, graphs, trend lines.</p> <p>Basic knowledge of sampling and sample designs.</p> <p>Basic knowledge of Test of Significance.</p>
ECO. 204	INDIAN ECONOMIC POLICY	<p>A thorough understanding on Indian Economic System. Know about the policy issues relating to economy of India. Contemporary Issues in Indian Economy shall provide basic knowledge on national Income accountings, various issues involved in agricultural, industrial, financial, trade sectors, public institutions and finally human resources development. By the end of the course, the student will be able to understand :</p> <p>Planning procedure in India.</p> <p>Problem of Poverty and Inequality, Unemployment, Regional Disparity.</p> <p>Public Finance in Indian Economy, Financial Sector Reforms in India.</p> <p>External Sector Behavior of Indian Economy- Structure and Direction of Foreign Trad</p>
ECO. 205	LABOUR ECONOMICs	<p>The paper makes students aware of different theories on labour and employment from the point of view of economic research. It provides a details analysis on the latest development of labour market in developing countries with reference to India. The paper laid a special emphasis on informal sector and the problem of labour in India. By the end of the course, the student will be able to understand :</p> <p>Labour Market and labour policies.</p> <p>Theories of wage Determination.</p> <p>National wage policy, Industrial Relations.</p> <p>Labour legislation in India.</p>
ECO. 301	ECONOMICS OF GROWTH	<p>The paper provides a fundamental foundation of basic growth and development issues, approaches and models. The paper attempts to discuss the structure and change in variables. It helps understand the overall static and dynamic perspectives of the economy from a purely theoretical perspective. An insight into the need for sustainable economic development. Study about Human Development Indicators and their role in designing development programmes. By the end of the course, the student will be able to understand :</p> <p>Economic Growth and Development and there indicators- life index ,HDI , GDI</p> <p>Project evaluation, Capital Output Ratio and Cost–Benefit Analysis.</p> <p>Theories of Development about different Economic classical and new models</p>

		Morden Theories of Development like Harrod Domar, Kaldor are help them to know about different type of growth.
ECO. 302	INTERNATION AL TRADE	To provide strong theoretical background to the students on the subject of international trade. It also help understands the empirical aspects such as trade reforms and their impact on India economy. By the end of the course, the student will be able to understand :
		Understand Nature, Scope and Importance of International Economics.
		Understand theories international trade.
		Understand theory of Intervention.
		Understand balance of Payments and Foreign Trade.
ECO. 303	PUBLIC FINANCE	The purpose of this course is to give an understanding of the role of the state in fostering economic activities via budget and fiscal policies. This course enables the students to understand the various issues between the central and State Government. Considering the increasing role of Government in the economy, this course aims to generate theoretical and empirical understanding of students about a different aspect of Governmental activities and their rationality. It covers fundamental concepts of public economics, public expenditure, public revenue, and public debt with special reference of Indian economy. By the end of the course, the student will be able to understand :
		knowledge of Public Finance and Taxation principales of taxation effects n incidence of taxtion is very much valuable for students.Role of Public Finance in developing Countries,
		Public Revenue: and its impact on economy Changing pattern of taxation in India.,
		Public expenditure is main main measurements of Development of any country . Different forms of expenditure, structure and growth of public expenditure in India and different types of expenditures are help students to grow their knowledge about countries development. Public Expenditure and its impact on economy
		Knowledge of public Dept like meaning objective, source, Redemptions, principales, Growth n Burden of Public debt Public Debt and its impact on economy
ECO. 304	ENVIRONMENT AL ECONOMICS	In environmental economics, It also provides theoretical and applied understanding on diverse frameworks of national and global environmental problems, analytical tools, institutional and regulatory mechanisms etc. By the end of the course, the student will be able to understand :-
		Studying welfare Economics, they learn how to maximise the welfare of individuals and country .
		Public goods and private goods. Causes of market failure.
		Environmental and resources Economics, important-issues in Environmental Economics. Macroeconomic policy and Environmental Economics.
		Concept of Environmental values.

ECO. 305	DEMOGRAPHY	Demographic study is very important for any country's economic development. Student learn about meaning , importance different field of demography. To make the students aware of the importance of population in economic development and the various theories that explain the growth of population in a country. The paper also enlightens the students on the quantitative and the qualitative aspects and characteristics of the population through various demographic techniques. The paper provides Economic and demographic features inter linkages in development.By the end of the course, the student will be able to understand :
		Meaning and importance of Demographic features in economy, Role of population in Economic development.
		Meaning and effects of Migration.
		Meaning of Mortality and Factor responsible for birth rate, death rate, infant mortality rate.
		Meaning of Fertility and its impact on economy
ECO. 401		Student acquaint with the basic concepts and issues of growth and development. Provide an insight into the modern approaches to economic development. In this paper students know about different plans and their achievement and different models of development. By the end of the course, the student will be able to understand :
		Economic Planning in India and evaluation of Indian Five Year Plans.Students understand about Planning and its different aspects and Saving,Capital formation ,overall growth rate , Achievements of plans.
		Approaches to development- different models.Students get knowledge about Various circle of poverty , unlimited supply of labour,Big-Push theory , balanced and unbalanced growth,Ranis and Fei model .
		Investment criterion in economic development.Students understand about investment criterion in economic development like Marginal,capital turnover, Reinvestment ,time series criterion and Fiscal policy .
		Problems of Development and their solution.
ECO. 402	INTERNATIONAL ECONOMICS	To provide strong theoretical background to the students on the subject of international trade. It also help understand the empirical aspects such as trade reforms and their impact on India economy. By the end of the course, the student will be able to understand :
		Understand the theory of regional blocks.
		Emergence of trading blocks at the Global level.
		International Capital movement, Need adequacy and determinates of International Reserves.
		Rationale and impact of Reforms since 1991 on BOP, Problems of India's International debt. Export policies of India, working and regulations of MNCs in India.

ECO. 403	PUBLIC ECONOMICS	Considering the increasing role of Government in economy, this course aims to generate theoretical and empirical understanding of students about different aspect of governmental activities and their rationality. It covers fundamental concepts of public economics, public expenditure, public revenue, and public debt with special reference of Indian economy. By the end of the course, the student will be able to understand :-
		Role of Public Finance in Economic Development.
		Federal finance in India.
		Budgets and Budgetary procedure in India.
		Performance of the Chhattisgarh government budget. Fiscal analysis of Chhattisgarh.
ECO. 404	ECONOMICS OF SOCIAL SECTORS	This course is rather an amalgamation of many applied themes and teaches students to analyze them from theoretical perspective. On top of theoretical courses, the students learn to analyze the issues related to sustainability of natural resources, economic impact of pollution, economics of education and economics of healthcare. This advanced level course builds capacity to examine social issues from theoretical perspective of economics. By the end of the course, the student will be able to understand :
		Environment and pollution. Environmental Degradation and Economic Development.
		Environmental laws, Protection of Environment,
		Use of Resources in sustainable economic development, contemporary Environmental Problems.
		Role of social sectors like health and education in economic development



Government D. B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: M.A. English Literature

PROGRAMME CODE: MAENG02

SCHEME OF PROGRAMM :AT A GLANCE

Course Code	Course Title
ENG. 101	POETRY I
ENG. 102	DRAMA I
ENG. 103	PROSE I
ENG. 104	FICTION I
ENG. 105	LANGUAGE MANAGEMENT & COMMUNICATION SKILL-I
ENG. 201	POETRY - II
ENG. 202	DRAMA - II
ENG. 203	PROSE - II
ENG. 204	FICTION - II
ENG. 205	LANGUAGE MANAGEMENT AND COMMUNICATION SKILLS
ENG. 301	CRITICAL THEORY-1
ENG. 302	INDIAN WRITINGS IN ENGLISH
ENG. 303	AMERICAN LITERATURE
ENG. 304	LINGUISTICS-1
ENG. 305	MODERNIST LITERATURE
ENG. 401	CRITICAL THEORY II
ENG. 402	INDIAN WRITINGS IN ENGLISH II
ENG. 403	AMERICAN LITERATURE II
ENG. 404	LINGUISTICS II
ENG 405	MODERNIST LITERATURE

PROGRAMME OUTCOMES

PO1	Developed mastery of English language skills and forms to be used in explicitly meaningful contexts through literature and criticism
PO2	Acquired necessarily required linguistic competence to be mastered in various real life situations
PO3	Appreciated and admired the master minds of literature and analyzed a variety of literary samples to determine the components, organizations, and structure of academic text
PO4	Melded themselves into full-fledged literary critics with good attitude towards objective criticism and unbiased conclusions

PO5	Integrated the indispensable human values to become respectful humans and law-abiding citizens
PO6	Promoted their managerial skills to work independently and in groups so that they could transform themselves into job-ready candidates and achieve their career goals
PO7	Widened their perspective to face the literary and artistic challenges and incorporate ICT skills to clear competitive examinations like NET, SET, UPSC, TNPSC etc. PROGRAMME SPECIFIC OUTCOMES At the end of the programme, the student will be able to

PROGRAMME SPECIFIC OUTCOMES

On completion of the M.A. Programme in English Language and Literature, students :-

PSO1	Have developed appropriately post graduate level intellectual skills , particularly with reference to critical thinking , reading and the application of the discourse of inter culturality to their own national situation
PSO2	Are able to effectively apply appropriate theory to the understanding their own, enabling them to engage with , critically evaluate and potentially contribute to new knowledge production
PSO3	Have developed the ability and the confidence to carry out independent and collaborative (scholarly)research in area of professional interest to them , including the selection and review of relevant literature , the collection of data , its sustained and detailed analysis and then drawing substantiated conclusions
PSO4	Producing intellectually adventurous, well –rounded thinkers and practitioners with strong intercultural awareness and a global outlook
PSO5	The skills provided by the course such as critical analysis, effective argument and and excellent oral and written communication skills, equip the students for a wide range of careers – teaching, publishing, journalism and in the field of mass communication , Print and Visual Media
PSO6	The learners application of new theoretical and intercultural knowledge to their classroom management / academic practice make them globally mobile and globally effective cross –cultural educators , employable in a very wide range of contexts , as befits a fast- moving and expanding profession
PSO7	Acquire a comprehensive understanding of English literature, its scope and variety
PSO8	Become proactive reader who understands the politics of narration
PSO9	Able to think creatively

COURSE OUTCOMES

ENG. 101	Poetry	The students shall be able to-
		1. Recognize poetry from various historic periods
		2. To understand and appreciate poetry.

		3. Enhance their vocabulary and develop an appreciation of language.
ENG. 102	Drama	<p>1. Students will be able to understand the the concept and experiments associated with English drama.</p> <p>2. Student will have knowledge of historical political economic social religious and cultural trends in a place</p> <p>3. Students would be able to compare different styles and formats of drama once they have learnt the different forms</p>
ENG. 103	Prose	<p>1. The students would be able to discern and discuss between interplay of elements.</p> <p>2. The understanding of different texts in different contexts will be developed</p> <p>3. The student would be trained in brevity and utility</p>
ENG. 104	Fiction	<p>1. 1. It will enable the students to analyse fiction using appropriate historical cultural and religious background</p> <p>2. The students will know of various cultures and traditions of gender Nation and race.</p> <p>3. The students will learn human values from the prescribed text</p>
ENG. 105	Language and Communication skills	<p>1. Learning various language patterns will help the students in real life in communicating effectively with others.</p> <p>2. The interpretative and expressive skills of students will be enhanced</p> <p>3. Developed also would be the real life expression on ground of knowledge gained from the course</p>
ENG. 201	Poetry II	<p>1. The critical thinking skills of students will develop</p> <p>2. They will develop a deeper understanding of cultural diversity as they will be introduced to poetry from a variety of cultures throughout the world</p> <p>3. The students will be able to develop their understanding of the world the poets lived in</p>
ENG 202	Drama II	<p>1. The students shall have developed the sense of judging the theoretical constructs of drama and theatre in English</p> <p>2. Students shall be able to apply their knowledge of society and life into the themes and trends of classics</p> <p>3. Having understood and analysed the different forms of drama the students would themselves further analyse the distinct forms</p>
ENG. 203	Prose II	<p>1. Student would be able to understand the literature in the context of the period being examined .</p> <p>2. The student would appreciate the background of the text and its effect on the way of writing.</p> <p>3. And increase sense of contextual understanding would refine the students Outlook as to the literary work.</p> <p>4. Student would be able to write with brevity and detail</p>
ENG. 204	Fiction II	<p>1. The students shall be trained in analysis of fiction using requisite religious socio cultural and historical context.</p> <p>2. The student would be trained in appreciation of the background of the literary work and would be taught of its effect on the author's method of expression.</p>

		<p>3. Recruitment of contextual study would help broaden students outlook as to the work in discussion.</p> <p>4. Students should be able to answer questions with practice and expertise</p>
ENG. 205	Language and Communication skills II	<p>1. Application of diverse patterns of tongue and language would help the students in real life situations to boost their confidence and communication.</p> <p>2. Interpretation and expression of students shall be qualitatively better.</p> <p>3. The expression of students in regard to subject matter perused shall have developed</p>
ENG. 301	CRITICAL THEORY -I	<p>1. To enable the students to use the various critical approaches.</p> <p>2. To introduce learners to Critical Theory – a field of inquiry involving continental philosophy and European linguistics, anthropology, sociology, literature and so forth.</p> <p>3. To understand the fundamental concepts of criticism.</p> <p>4. To develop students' understanding about the principles of Indian as well as Western European philosophy and aesthetic theory.</p>
ENG. 302	INDIAN WRITING IN ENGLISH - I	<p>1. To familiarize the learners with various themes and cultural contexts of Indian English writing.</p> <p>2. To help students understand the history and the evolution of Indian Literature;</p> <p>3. To introduce them to all the 4 genres of Indian Literature;</p> <p>4. To enable them understand the cultural heritage of India through its literature</p>
ENG. 303	AMERICAN LITERATURE -I	<p>1. To introduce the students with the works of American Literature.</p> <p>2. To focus on the major developments in American poetry, fiction, and drama.</p> <p>3. To acquaint them with various periods of American Literature, the major currents of American thought.</p>
ENG. 304	LINGUISTICS - I	<p>1. To acquaint the students with the basic concepts of linguistics and applied linguistics.</p> <p>2. To introduce students with the relationship between language and literature.</p> <p>3. To expose learners to the variety of theoretical and practical manifestations of linguistics.</p>
ENG. 305	MODERNIST LITERATURE- I	<p>1. An understanding of the major trends in modernist writings .</p> <p>2. To familiarise them with the experimentation made by the authors in the themes and narrative technique .</p> <p>3. To study the impact of post colonialism in the writings of modernist writers.</p>
ENG. 401	CRITICAL THEORY II	<p>1. To introduce the students with the major trends of literary thought.</p> <p>2. To familiarise them with the inter-disciplinary nature of literary theories</p> <p>3 To familiarise them with discourses related to contemporary sociopolitics issues.</p>

ENG 402	INDIAN WRITINGS IN ENGLISH II	1. To familiarise the students to the growth of Indian Writing in English and the works of representative writers . 2. To familiarize learners to the major trends and movements and figures of Indian Writing in English. 3. To enable them to understand the impact of colonialism and its reflection in Indian Writing in English 4. To familiarize them with the contemporary Indo-Anglian authors.
ENG 403	AMERICAN LITERATURE II	1. To expose students to the wide variety of American literature 2. To study the eminent American authors and their contribution to the making of world literature
ENG 404	LINGUISTICS II	1. To enrich learners with the knowledge of the scientific study of language and to provide insights into the nature of language 2. To extend the student's understanding of some of the broad areas of linguistics, applied linguistics and rhetoric. 3. To provide exposure to the variety of theoretical and practical manifestations of linguistics.
ENG 405	MODERNIST LITERATURE	1. To familiarise students with the socio- cultural changes of the twentieth century through select texts. 2. To study the post- colonial texts, ethnic, feminist and other issues. 3. To introduce them with the modern critical and perspectives



FACULTY OF GEOGRAPHY

Government D. B. Girls Postgraduate College, Raipur

Programme: M.A -GEOGRAPHY

PROGRAMME CODE: MAGEO03

SCHEME OF PROGRAMM :AT A GLANCE

Programme Outcomes (PO)

PO1	The M.A. Geography semester wise programme offered by the College accomplishes the students to possess in-depth insights, critical knowledge of basic concepts, clear understanding at par with international standards & peers, and familiarization at the minutest level of the issues pertaining to geographical nature, bodies, regions, morphology, environment, climate & atmosphere of mother earth gained through systematic learning of Geomorphology, Climatology, Geographical Thought, Geography of India, Economic and Natural Resource Management, Oceanography, Regional Development and Planning, Social Geography, Population Geography, Settlement Geography, Biogeography and Ecosystem, Research Methodology, Urban Geography, Agricultural Geography, and Environmental Geography. The students after the completion of this programme become well prepared to take up various professional assignments, engagements and jobs in the diverse fields of application of geographical studies and technologies.
PO2	The students will be able to think critically and take informed decisions after identifying the accuracy and validity of their assumptions and ideas from intellectual, organizational, and personal perspectives.
PO3	The students will be able to communicate effectively through speaking, reading, writing and listening clearly in one Indian language and thereby express themselves to the world by connecting with different ideas, books, people, media and technology.
PO4	The students will be able to interact socially and stimulate views, reconcile disagreements and help reach consensual conclusions.
PO5	The students will be able to demonstrate compassionate social concern and act with cognizant awareness of issues to contribute in civic life by volunteering impartially towards national development and thereby deliver effective citizenship.
PO6.	The students will be able to ethically recognize different value systems, understand the moral dimensions of individual decisions and accept responsibility for them.
PO7.	The students will be able to recognize the issues of environmental perspectives and appreciate sustainable development for long term environmental sustainability.
PO8.	The students will be able to engage themselves in life-long self-determining and learning in the comprehensive background of socio-technological changes for continued self-directed and life-long learning. PO9. The students will be able to inculcate values to become life-long environment conscious and nature volunteers, warriors and preservers
PO9.	The students will be able to inculcate values to become life-long environment conscious and nature volunteers, warriors and preservers.

Programme Specific Outcomes (PSO)

PSO1.	Understand the theoretical and applied aspects of geography as a branch of Knowledge.
PSO2.	Establish Spatio-temporal analysis of geographical phenomena.
PSO3.	Develop their field observations, data gathering and interpretations skill.
PSO4.	Comprehend key methodological and different approaches to interpret geographical facts.

PSO5.	Enhance their practical skill through field visits and first hand experience of tools/equipment.
PSO6.	To familiarize with the applied aspects in different sub branches of geography
PSO7.	Identify frontier area of research and sub-branches of geography for further research.
PSO8.	Analyze man environment relations in a better way.

Course Outcomes (CO)

Paper Code	Paper Name	Course Outcome
Paper I	Geomorphology	Understanding the blue planet Earth and its dynamics, Interior of the earth forces of building physical feature
Paper II	Climatology	Understanding of generation of weather and climatic phenomena and dynamics of climate. To understand Monsoon with special reference to India.
Paper III	Geographical Thought	To introduce the students the philosophical and methodological foundations of the subject and its place in the world of knowledge. To familiarize them with the major landmarks in development of geographic thought at different periods of time and space.
Paper-IV	Advanced Geography of India	To understand India in terms of various regional divisions, their important characteristics, Intra-regional and inter-regional linkages: to analyse the natural and human resource endowments, their conservation and management. To sensitize the students with development issues and policies and programmes designed for regional development.
Paper V	Practical Advanced Cartography	To apprise the student with latest trends in the development of cartography as a tool in mapping thematic and quantitative data to facilitate spatial analysis and synthesis.
Paper I	GEOGRAPHY OF CHHATTISGARH	Understand the 26 th state of India in true sense physical as well as social economical industrial and human resource. To sensitize the students with development issues and policies and programmes designed for regional development.
Paper II	Oceanography	The objective of the course is to introduce students to the many facts of Oceans such as evolution of the oceans, Physical and chemical properties of sea water, atmospheric and oceanographic circulation, The fascinating world of marine life and the characteristic of marine environment and the impact of man on the marine environment.

Paper III	Agriculture Geography	To familiarize the students with the concept, origin, and development of agriculture; to examine the role of agricultural determinants towards changing cropping patterns. Intensity, productivity, diversification and specialization. The course further aims to familiarize the students with the application of various theories, models and classification schemes of cropping patterns and productivity. Its objectives are also to discuss environmental, technological and social issues in agricultural sector with special reference to India.
Paper-IV	Urban Geography	To understand the growth and evolution of urban settlements, analyze the patterns, morphology and function of settlements. City -country relationship, problems and planning. To examine the social destruction and well being of society in India. Problem and policies of present socio environmental issues.
Paper V	Advanced Cartography and Surveying	To enhance the skill of the students in the field of survey for revenue purposes and understanding the principle of map making and cartographical techniques
Paper I	Economic Geography	To understand economy of world recognize and analyze the distribution of resources like agriculture, minerals, industries and human response. To know about the indicators of developed and developing world .
Paper II	RESEARCH METHODOLOGY	
Paper III	Regional Development and Planning	Concept of regional growth and planning in any region to identify the issue related to the development of the region. Regional disparity and its outcome in developmental perspective. Regional polices for improvement.
Paper-IV	Population Geography	To understand the complex dimensions of demography. To know about census and its procedure, population structure problems policies, migration and theories of population.
Paper V	Quantitative Techniques & GIS	To introduce statistical procedure to the student to be applied to various themes in Geography. To understand the latest tool of Remote Sensing and Geographical Information system.
Paper I	Social Geography	To familiarize the student with the society through concept and social theories, philosophical approaches and spatial processes. To examine the processes of social regional formats in India with the help of socio cultural and historical factors.

Paper II	Political Geography	To expose the student to the strategic importance of of geographical parameters in the political scenario of the global regional national and local level. To sensitize the student to the geopolitical dimensions and understanding of conflict and regional co-operations. Make student familiar with the polity of world power.
Paper III	Environment Geography	Understand the man nature relationship. The objective of the paper is to create awareness about the environment Create the sense of duty to our students to protect and preserve the flora and fauna of earth. Changing dimensions of man environment relationship as degradation and managerial aspect of our environment.
Paper IV	Disaster Management	Understand the meaning of disaster and vulnerability in rural, urban, mountain, coastal and seismic areas. Rescue and relief operations and role of NDRF in restoring normalcy.
Paper-V	Practical Socio -Economic Survey	Main objective of the field work is to provide the students to understand the ground reality of a chosen village or ward by observation , mapping the land quality, land use, cropping pattern, city structure and morphology. Conducting the socio economic survey of the house hold with the help of specially prepared questionnaire of that particular area.



FACULTY OF HINDI

Government D. B. Girls Postgraduate College, Raipur

Programme: M.A - Hindi

PROGRAMME CODE: MAHIN04

Programme Outcomes (PO)

PO1	To prepare the students with skills to analyze the concept and different theories of Hindi literature and language.
PO2	To prepare the students for pursuing research or careers in Hindi language and literature and it's allied fields.
PO3	Imbibe the effective communication in both mediums of expression (oral and writing).
PO4	Continue to acquire relevant knowledge and skills appropriate to professional activities.
PO5	Create awareness to become an enlightened citizen with commitment to deliver one's responsibilities within the scope of bestowed rights and privileges.

Programme Specific Outcomes (PSO)

PSO1.	To prepare and motivate students for research studies in Hindi language and literature and related fields.
PSO2.	To provide advanced knowledge of different theories of Hindi language and literature and empowering the students to pursue higher degrees/research at reputed academic institutions.
PSO3.	To nurture analytical qualities or skills, thinking power, creativity through assignments & project works.
PSO4.	To assist students in preparing (personal guidance, books) for competitive exams. e.g. NET/SET, Staff Selection Commission, Banking sector/Govt. of India undertakings (Rajbhasha Sahayak or Hindi Officer/ Hindi Translator), School Service Commission etc.
PSO5.	To encourage the students for original thinking/thought /decision making.
PSO6.	To imbibe the effective communication in both mediums of expression (oral and writing)

Course Outcomes (CO)

Paper Code	Paper Name	Course Outcome
HIN. 101	हिन्दी साहित्य का इतिहास	I- हिन्दी साहित्य का इतिहास दर्शन और साहित्येतिहास की समीक्षा
		II- आदिकाल के कवियों की समीक्षा
		III- भक्ति काल का अध्ययन
		IV- सूफी और प्रेमाख्यानक कवियों का अध्ययन
HIN. 102	प्राचीन एवं मध्यकालीन काव्य	I- चंदबरदाई के पृथ्वीराज रासो का अध्ययन
		II- कबीर की साखियों की व्याख्या व समीक्षा
		III- जायसी के नागमती विरह खंड की समीक्षा

		IV-अन्य भक्तिकालीन कवियों का परिचय
HIN. 103	आधुनिक हिन्दी काव्य	I- मैथिलीशरण गुप्त के साकेत का अध्ययन
		II- जयशंकर प्रसाद के महाकाव्य कामायनी का अध्ययन
		III- सूर्यकांत त्रिपाठी निराला की कविताओं की समीक्षा व व्याख्या
		IV-अन्य आधुनिक कवियों की समीक्षा
HIN. 104	आधुनिक गद्य साहित्य	I- स्कंदगुप्त नाटक की समीक्षा
		II-आषाढ़ का एक दिन की नाट्य समीक्षा
		III- विभिन्न निबंधों की समीक्षा
		IV-विभिन्न विधाओं के अन्य रचनाकारों की समीक्षा
HIN. 201	हिन्दी साहित्य का इतिहास भाग 2	I- रीतिकाल एवं उसकी अन्य धाराओं का अध्ययन
		II- आधुनिक काल का परिचय
		III-द्विवेदी युग व अन्यवादों व प्रवृत्तियों का अध्ययन
		IV- हिन्दी गद्य का विकास
HIN. 202	प्राचीन एवं मध्यकालीन काव्य भाग 2	I - सूरदास के भ्रमरगीत सार की काव्य समीक्षा
		II.तुलसी के रामचरित मानस के सुंदरकांड के माध्यम से सदकर्म की प्रेरणा
		III- बिहारी के काव्य की व्याख्या व समीक्षा
		IV-विभिन्न कवियों की समीक्षा
HIN. 203	आधुनिक हिन्दी काव्य भाग 2	I-अज्ञेय की कविताओं की व्याख्या व समीक्षा
		II- मुक्तिबोध की लंबी कविता अंधेरे में की व्याख्या
		III- नागार्जुन की विभिन्न कविताओं की समीक्षा
		IV- द्रुत पाठ के विभिन्न कवियों की समीक्षा
HIN. 204	आधुनिक गद्य साहित्य भाग 2	I - गोदान उपन्यास की समीक्षा
		II- आंचलिक उपन्यास मैला आंचल की समीक्षा
		III- विभिन्न कहानियों की व्याख्या व समीक्षा
		IV - विभिन्न कहानीकारों की रचनाओं का अध्ययन
HIN. 301	काव्य शास्त्र एवं साहित्यालोचन भाग 1	I. भारतीय काव्यशास्त्र में काव्य हेतु, लक्षण व प्रयोजन का अध्ययन
		II. अलंकार, रीति, वक्रोक्ति, ध्वनि और औचित्य सिद्धान्त की समीक्षा
		III. पाश्चात्य काव्य शास्त्री प्लेटो और अरस्तू के सिद्धांतों का अध्ययन

		IV. लॉजाइनस और मैथ्यू अर्नोल्ड की काव्य अवधारणा का अध्ययन
HIN. 302	भाषा विज्ञान व हिन्दी भाषा भाग 1	I. भाषा व भाषा विज्ञान का आधारभूत ज्ञान
		II. स्वन प्रक्रिया का अध्ययन
		III. रूप विज्ञान व वाक्य संरचना का अध्ययन
		IV. अर्थ विज्ञान का अध्ययन
HIN. 303	प्रयोजनमूलक हिन्दी भाग 1	I. हिन्दी के विभिन्न रूप व कार्यालयीन हिन्दी , राजभाषा का अध्ययन
		II. पारिभाषिक शब्दावली एवं कम्प्यूटर में हिन्दी का अनुप्रयोग
		III. इंटरनेट संपर्क उपकरणों का परिचय
		IV. पत्रकारिता स्वरूप एवं प्रकार
HIN. 304	भारतीय साहित्य	I. भारतीय साहित्य का स्वरूप
		II. पूर्वाञ्चल भाषा वर्ग में बंगला भाषा व साहित्य का अध्ययन
		III. बंगला और हिन्दी का तुलनात्मक अध्ययन
		IV. अग्निगर्भ उपन्यास व हयवदन नाटक काबी आलोचनात्मक अध्ययन
HIN. 401	काव्य शास्त्र एवं साहित्यालोचन भाग 2	I. अभिव्यंजनावाद , स्वच्छंदतावाद आदि का अध्ययन
		II. विभिन्न आचार्यों का काव्यशास्त्रीय सीएचआईएनटीएन
		III. आधुनिक हिन्दी आलोचना की प्रमुख प्रवृत्तियाँ
		IV. व्यावहारिक समीक्षा
HIN. 402	भाषा विज्ञान व हिन्दी भाषा भाग 2	I. प्राचीन भारतीय आर्य भाषाओं का अध्ययन
		II. हिन्दी की उप भाषाओं का अध्ययन
		III. हिन्दी के विविध रूपों का अध्ययन
		IV. देवनागरी लिपि का अध्ययन
HIN. 403	प्रयोजनमूलक हिन्दी भाग 2	I. मीडिया लेखन जैसे जनसंचार के माध्यमों का अध्ययन
		II. दृश्य - श्रव्य माध्यम (फिल्म , टेलीविजन व रेडियो) में भाषा की प्रकृति
		III. अनुवाद परिभाषा , क्षेत्र व सीमाएं
		IV. शाब्दिक अनुवाद , भावानुवाद आदि का अध्ययन
HIN. 404	जनपदीय भाषा साहित्य (छत्तीसगढ़ी)	I. छत्तीसगढ़ का साहित्यिक और सांस्कृतिक इतिहास
		II. छत्तीसगढ़ के प्रमुख कवियों का परिचय
		III. छत्तीसगढ़ी नाटक और उपन्यास का अध्ययन
		IV. छत्तीसगढ़ के अन्य रचनाकारों का अध्ययन



FACULTY OF HISTORY

Government D. B. Girls Postgraduate College, Raipur

Programme: M.A -HISTORY

PROGRAMME CODE: MAHIS05

SCHEME OF PROGRAMM :AT A GLANCE

Programme Outcomes (PO)

PO1	Students can get several opportunities in different field after completing. Their graduation and post-graduation studies from history subject viz.
PO2	By studying history and culture the students gain knowledge of their roots and the history of their own country and the culture.
PO3	May get appointed in school or higher education system as lecturer or Professor.
PO4	In competitive examination success can be ascertained at state and national levels by opting history as a subject.
PO5	. In the areas of tourism after becoming the scholar of the subject may work for acquiring knowledge and conservation of historical and cultural heritages of the country.
PO6.	Justice at national and International level may be done by a historian in matters of authenticity and claims regarding ancient matters.
PO7.	By Studying History many employment option are available in the fields of Art and Culture, Literary works, Politics, Social work in spiritual teachings, Theatre, Actor, Media industry and Textile Industry
PO8.	By working in the research areas may reinvent the untouched areas of historical and cultural importance.

Programme Specific Outcomes (PSO)

PSO1.	Definition, Purpose, Utility and scope of History.
PSO2.	Sources of the reconstruction of Ancient Indian History, Literary, Archaeological, Numismatics and Epigraphy.
PSO3.	Origin and Evolution of State-Monarchical and Republican tradition.
PSO4.	Different literary tradition and their important Vedic, Buddhist, and Jain.
PSO5.	Characteristic of Indian Culture.
PSO6.	Formation, evolution and impact of different trends ie Dharma, Artha, Kama and Moksha tradition.
PSO7.	Different Method of archaeological exploration and excavation, visits of selective sites.
PSO8.	Study of symbols images and important points spot, Epigraphy, Ashokan, Greek, Kushan and Gupta etc.
PSO9.	History-one of the popular option in competitive examination through its study the students becomes acquainted with his or her National heritage.

Course Outcomes (CO)

Paper Code	Paper Name	Course Outcome
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HIS. 101	ITIHAS PADDHATI	<p>1. The study of ancient Indian history is taught in the syllabus.</p> <p>2. History of Chhattisgarh is one of the subjects in which from ancient till modern historical knowledge is imparted to the students about their Rulers, kingdom, administration, policies, achievements, architecture, religions.</p> <p>3. In the modern period the freedom movement till independence of India is the syllabus which is taught to the students.</p> <p>4. The History of Tourism with in which world tourism, Indian tourism and Chhattisgarh tourism, by studying these subjects the students gain a vide knowledge on the above topics and also understand the possibilities and challenges of the field of tourism.</p> <p>5. The history of modern India with in which revolt, Gandhian movement, Sarvodaya, Swaraj, Azad hind Fauj, freedom movement is taught, in this the participation of women, youngster, freedom fighters, revolutionaries and leaders in the freedom struggle is taught. The formation of constitution of India, the students gain knowledge on these topics.</p> <p>6. Women in the Indian history, in this paper the women's historical contribution from ancient period to modern period is taught, the involvement of women in the art, culture, literature, cinema, theatre and the role of women in politics, law, education, scientific research, writer/ author, musician, social works and freedom movement.</p>
HIS. 102	WORLD HISTORY (1871-1919)	
HIS. 103	ANCIENT & MEDIEVAL CHHATTISGARH	
HIS. 104	TOURISM THEORY & PRACTICE:SPECIAL REF TO HISTORY	
HIS. 201	HISTORY WRITING	
HIS. 202	CONTEMPORARY WORLD (1919-1950)	
HIS. 203	MODERN CHHATTISGARH	
HIS. 204	TOURISM THEORY & PRACTICES WITH REFERENCE TO HISTORY	
HIS. 301	ANCIENT INDIA (FROM BEG. 6TH CENTURY B.C.)	
HIS. 302	HISTORY OF INDIA(FROM 650 - 1200A.D.)	
HIS. 303	HISTORY OF FREEDOM MOVE. IN INDIA(1857-1919)	
HIS. 304	WOMEN IN INDIAN HISTORY	
HIS. 401	ANCIENT INDIA (FROM B.C. 6 CENTURY TO 650 A.D.)	
HIS. 402	HISTORY OF INDIA (FROM 650 A.D.- 1200 A.D.)	
HIS. 403	HISTORY OF INDIAN NATIONAL MOVEMENT(1920-1967)	
HIS. 404	WOMEN IN INDIAN HISTORY	



Government D.B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: M.A. POLITICAL SCIENCE

SCHEME OF PROGRAM AT A GLANCE

SEMESTER I

Paper Code	Title	Marks						Total
		Theory		Test		Seminar		
		Max.	Mini.	Max.	Mini.	Max.	Mini.	
POL. 101	Western Political Thought	80	16	10	2	10	2	100
POL. 102	Comparative Politics	80	16	10	2	10	2	100
POL. 103	Public Administration	80	16	10	2	10	2	100
POL. 104	Chhattisgarh Govt.& Politics	80	16	10	2	10	2	100

SEMESTER II

Paper	Title	Marks						Total
		Theory		Test		Seminar		
		Max.	Mini.	Max.	Mini.	Max.	Mini.	
POL. 201	Political Thought	80	16	10	2	10	2	100
POL. 202	Politics of Developing countries and comparative Politics	80	16	10	2	10	2	100
POL. 203	Public administration (Local autonomy government)	80	16	10	2	10	2	100
POL. 204	Indian Foreign Policy	80	16	10	2	10	2	100

SEMESTER III

Paper	Title	Marks						Total
		Theory		Test		Seminar		
		Max.	Mini.	Max.	Mini.	Max.	Mini.	
POL.301	Indian Government and Politics	80	16	10	2	10	2	100
POL.302	Theory of International Politics	80	16	10	2	10	2	100

POL.303	Research Methodology	80	16	10	2	10	2	100
POL.304	International Organization	80	16	10	2	10	2	100

SEMESTER IV

Paper	Title	Marks						Total
		Theory		Test		Seminar		
		Max.	Mini.	Max.	Mini.	Max.	Mini.	
POL. 401	The State Politics in Indian Government	80	16	10	2	10	2	100
POL. 402	International Politics (Recent issues)	80	16	10	2	10	2	100
POL. 403	Research Techniques regional work	80	16	10	2	10	2	100
POL. 404	International Law	80	16	10	2	10	2	100

..... PROGRAM OUTCOME.....

The Department is dedicated to promote teaching and research in diverse fields of political science including Indian politics, comparative politics, international relations and human rights while maintaining the scholarship in some of the conventional fields like political theory and political philosophy. Presently, the department is offering Master's and PhD programmes in Political Science. The learning outcomes of the programmes are as follows:

- To develop comprehensive understanding of the subject by teaching both conventional and new areas of relevance in the domain of political theory and philosophy, Indian politics, comparative politics, public administration and international politics.

- To develop comprehensive and interdisciplinary knowledge by emphasizing inter-linkages between various political, economic and social issues and challenges.
- To generate socially-informed knowledge and cater to the educational upliftment of marginalized communities through papers like Political Ideas in Modern India
- To develop theoretically rich and empirically grounded knowledge
- To motivate and inform students about the opportunities and future prospects in the field.
- To develop the overall personality of students and prepare them to compete and succeed in their endeavours.
- To provide a progressive, healthy and vibrant environment to its students as well as teachers for the purpose of developing a department known for its academic and intellectual pursuit.
- To inculcate the values of tolerance, progressiveness and fraternity that contributes towards the making of a healthy and prosperous society.

PROGRAME OUT COME

PO 1	Study of western and Indian political thought to analyse the various school of thought of Ideal, liberal ,Marxist and modern thought.
PO 2	Introduction to various methods and approaches like comparative politics structural function approach development.
PO 3	Introduction to the study of the concept and study of public administration , principals of organisation ,personal financial administration in India and local autonomy
PO 4	Introduction to the creation government in Chhattisgarh .
PO 5	Indian Foreign Policy in current world scenario and study of international politics.
PO 6	Study research methodology and its various concept and techniques

PO 7	Study of international organisation and law post 2 nd world war
PO 8	Govt. And political in India and the states of India an analytical study

PROGRAMME SPECIFIC OUTCOMES

PSO 1:	Understand the contribution of the main traditions of western political thinkers to political thought.
PSO 2:	Understand the processes and dynamics of Indian government and politics. It also familiarize with the vital contemporary emerging issues of centre state relation, political parties, emergence of new leadership at different levels, demand for autonomy movement, ethnic conflicts etc
PSO 3:	Acquaint with the basic concepts principles and dynamics of public administration
PSO 4:	Familiarise with important theories and issues of international politics.
PSO 5:	Acquaint with the diverse political systems especially the developed countries including China and Switzerland.
PSO 7:	Understand the basic concept and ideological orientations of political science discipline.
PSO 8:	Understand the contribution of the main traditions of Indian Political Thought.
PSO 9	An understanding the evolution development and trends of India's foreign policy.
PSO 10	Acquaint with the basics of International Law and the new trends in the realm of International law.
PSO 11	Familiarise with the problems and prospects of rural development of India.

PSO 12	Understand the cultural, social, political, economic and constitutional environment as a historical perspective of Indian Administration.
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COURSE OUTCOMES

POL. 101	Western political thought	unit 1-Ancient & medieval thinkers unit 2-Medieval & utilitarianism thinkers unit 3-Liberal & Idealist thinkers unit 4-Marxist & modern thinkers
POL. 102	Comparative politics	unit 1-Introduction to comparative politics unit 2-Development & approaches to study unit 3-Structural Functional approaches & other concepts unit 4-Political culture & other concepts
POL. 103	Public Administration	unit 1-Introduction & types of administration unit 2- Approaches to the study and other concepts unit 3-Principles of organization unit 4-Various organizations ,bureaucracy
POL. 104	Govt. & Politics of C.G	unit 1-Introduction creation Chhattisgarh unit 2-Administration in Chhattisgarh unit 3-Legislature in Chhattisgarh unit 4-Political development in Chhattisgarh
POL. 201	Political Thought	unit 1-Ancient & other modern thinkers of India unit 2-Modern Indian thinkers unit 3-Hegel,features of political theory unit 4-Recent political thought

POL. 202	Political developing countries and comparative politics	unit 1-Variou political concepts unit 2-Classification of government unit 3-Political concepts &,legislative unit 4-Stady of executive & judiciary
POL. 203	Public administration(Local autonomy government)	unit 1-Personnel administration and other concepts unit 2-Financial administration & Budget formation process in India unit 3-Control over public administration unit 4-Problems in public administration & redressal
POL. 204	Indian Foreign Policy	unit 1-Introduction to foreign policy & other concepts unit 2-Domestic & external determinants of indian foreign policy unit 3-Relation with Super powers unit 4-Relation with Neighbours
POL. 301	Indian Govt. and Politics	unit 1-Background & features of Indian constituon unit 2-Union government unit 3-Parliament & Supreme court unit 4-Political parties & pressure groups & judicial activism
POL. 302	Theory of international politic.	unit 1-Development & methods of study International politics unit 2-Theories of International politics unit 3-Concepts of power etc... unit 4-Disarmament,regionalism etc...
POL. 303	Research Methodology	unit 1-Introduction & problems of social research unit 2-Case study, social survey unit 3-Research design ,hypothesis & sources of data

		unit 4-Data collection & interview methodes
POL. 304	International Organization	unit 1-Introduction to international organizations etc... unit 2-Structure & fuction of International Organization & league of nation unit 3-Settlement of international disputes & International court unit 4-U.N.O. & social, economic development , post cold war
POL. 401	The State Politics in Indian government	unit 1-Election commission,Union commissions & federal system unit 2-State government & state legislature unit 3-Impact of national state politics & political parties unit 4-Factors influencing Indian politics
POL. 402	Theory of international politics(Recent issues)	unit 1-Non alignment,cold war, end of cold war unit 2-Important issues of post cold war era etc... unit 3-Third world and its problem unit 4-Foreign policies of major countries etc...
POL. 403	Research Techniques regional work	unit 1-Questionnaire & schedule unit 2-Sampling & tabulation unit 3-Projective techniques & other concepts unit 4-Role of statistics & computer in research
POL. 404	International Law	unit 1-Introduction to international law unit 2-Jurisdiction & equality of states,law of wars unit 3-Termination of war, neutrality etc... unit 4-Blocked & other concepts ,limitations & possibilities of international law



FACULTY OF

Government D. B. Girls Postgraduate College, Raipur

Programme: M.A –Psychology

PROGRAMME CODE: MAPSY07

Programme Outcomes (PO)

The M.A.Psychology program is for two years with four semesters. In the first year of two semesters, students study's about the basic fundamental of psychology.

From the third semester of Second-year students go for specialization in a clinical or educational branch of Psychology which is relevant to developmental needs in educational institutions and health sectors with three compulsory branches of knowledge on Personality, Lifespan development Cognitive behaviour with the applied approach of measure and testing in Psychology.

Programme Specific Outcomes (PSO)

PSO1	Foster the comprehension of psychological science with special focus on conceptual, theoretical and experimental methodologies.
PSO2	Comprehend research strategies, methods, design and techniques of data collection
PSO3	Critically evaluate information, issues and assumptions from different perspectives and apply scientific knowledge to solve problems
PSO4	Identify, adhere and apply code of ethics to resolve ethical issues.
PSO5	Inculcate indigenous Indian psychological knowledge through scriptures
PSO6	Apply the different branches of psychology to diverse fields i.e.; organization behaviour, health, counselling psychology, clinical psychology and educational psychology etc.
PSO7	Communicate, articulate and explain the fundamental concepts of psychology clearly and convincingly.
PSO8	Understand and execute assessment tools related to psychological processes and attributes related to cognitive and non-cognitive processes.
PSO9	Develop skills to apply appropriate quantitative and/or qualitative data analysis techniques and use statistical software also.
PSO10	Practical application of psychological knowledge through internship to intervene for resolving psychological problems and promote positive behaviour and well-being at individual, group, and social level.
PSO11	Understand the psychological clinical issues like abnormal behaviours and deviant mental abilities
PSO12	Developing the management skills to address behavioural and clinical psychological issues.

Course Outcomes (CO)

Course Code	Paper Name	Course Outcome
PSY. 101	BASIC PSYCHOLOGICAL PROCESSES-I	Perceptual process, Perceptual consistency, Size, shape etc., Attention Type & theory, Basic concept of motivation & emotion, Concept of consciousness & self and Identity

PSY. 102	SOCIAL PSYCHOLOGY	Nature and historical background of Social psychology, social cognition, Social influence and Attitude, Prosocial behaviour and anger management
PSY. 103	BASIC RESEARCH METHODOLOGY	Introduction, Types and Methods of Psychological Research, Research Problem and Hypothesis, Research Designs , Dispersion, Inferential statistics and Method of Data collection
PSY. 104	PSYCHOPATHOLOGY	Concept of Psychopathology & Classification system, Disorder of anxiety, Somatoform, Psychotic disorder(Mood disorder),Mental retardation, ADHD, ASD, Learning disability
PSY. 105	PRACTICUM	Experiments and Field study
PSY. 201	BASIC PSYCHOLOGICAL PROCESSES-II	Learning Process, Conditioning, Verbal Learning methods & material, Memory and types, Forgetting causes & theories, Improving memory
PSY. 202	GROUP PROCESS AND CULTURAL PSYCHOLOGY	Group dynamics and Behaviour, Leadership and Psychology of Followers, Social Issues, Crowd psychology, Culture- cognition, organization, emotion, personality, health, Environment and Law
PSY. 203	ADVANCED RESEARCH METHODOLOGY	Experimental Designs, Analysis of Variance, Measures of Relationships , Regression and Factor Analysis
PSY. 204	PHYSIOLOGICAL PSYCHOLOGY AND HEALTH BEHAVIORS	Basic concept, Brain Stimulation, Receptor & effector, Sensory system, Nervous system, Sleep & Walking ,Stages of sleep Physiological mechanism of Sleep, Different therapies & mental health, Current issues & trends in Health Psychology (Life style, Health problem, Diabetes)
PSY. 205	PRACTICUM	Tests and Field study
PSY. 301	PERSONALITY & INDIGENEOUS PSYCHOLOGY	Introduction to Personality ,Theories of Personality of different Psychologists, Cognitive approaches of Personality, Indian concept of Personality(Yoga & Sankya)
PSY. 302	PSYCHOLOGICAL ASSESSMENT-I	Scaling methods of construction of psychometric tests, Standardisation process of Psychometric test, Adaptation of test, and use of Psychological test in Applied field
PSY. 303	COGNITIVE PSYCHOLOGY	Theories of thought process- concept formation and reasoning, Problem Solving strategy and Decision Making, Memory-process and models, Biological basis of Memory- biochemical factors and improving strategies
PSY. 304	EDUCATIONAL INSTRUCTIONAL PSYCHOLOGY	Theories in Educational psychology, Information Processing Models, Learning Styles Individual and Group differences in Intelligence, gender issues and Learning & Motivation
PSY. 305	CLINICAL DIAGNOSIS	Approaches to Clinical Psychology, Assessment of personality, Projective technique, and Behavioural measures to assess Personality, Psychometric test, Major Neuro- Psychological tests
PSY. 306	PRACTICUM	Experiments and Field study Tests and Field study

PSY. 401	LIFE SPAN DEVELOPMENT	Principles and process of Development, Method & theories, how life begin, characteristics , adjustment, hazards & Personality development, Psychosocial changes and adjustment of adolescents & Adulthood, Personal ,Social & Vocational problems of Middle & Old age
PSY. 402	PSYCHOLOGICAL ASSESSMENT -II	Concept & Measurement of Intelligence and Aptitude, Test of Personality, Psychological testing in the applied field, Emotional Intelligence.
PSY. 403	PSYCHOLOGY OF COGNITIVE ABILITIES	Creativity, Intelligence and Problem solving, Abilities and Achievement, Multiple , Artificial and Determinants of Intelligence, Measurement of Human Abilities
PSY. 404 (Optional)	BASICS OF PSYCHOLOGICAL GUIDANCE&COUNSELLING	Counselling- need, approaches, functions and techniques, Characteristics of a good counsellor, Techniques of Appraising the Client, Guidance and Research services, Special areas of guidance and counselling- marital, family, adolescent, educational, vocational, and the problem of guidance in India
PSY. 404 (Optional)	PSYCHOTHERAPEUTIC COUNSELLING	Methods of Preventing Problems & Developing Resourcefulness & how to be assertive, Decision-making ability, conversational skills & physical fitness, Counselling techniques, Different methods for alerting maladaptive behaviour, Marital maladjustments, Child misbehaviour, methods for alerting fears & anxiety & treating Psychophysiological disorders



FACULTY OF SOCIOLOGY

Government D. B. Girls Postgraduate College, Raipur

Programme: M.A -Sociology

PROGRAMME CODE: MASOC08

SCHEME OF PROGRAMM :AT A GLANCE

Programme Outcomes (PO)

PO1	Students would be able to think critically on societal issues and its national & global implications.
PO2	Students would be able to shoulder social and ethical responsibilities in its true form and hence develop into a better citizen.
PO3	Students would be able to perceive social issues both objectively and subjectively.
PO4	Students would be able to develop better social interaction skills for greater exchange of thoughts and ideas.
PO5	The students will be able to think critically and take informed decisions after identifying the accuracy and validity of their assumptions and ideas from intellectual, organizational, and personal perspectives.
PO6.	The students will be able to communicate effectively through speaking, reading, writing and listening clearly in one Indian language and thereby express themselves to the world by connecting with different ideas, books, people, media and technology.
PO7.	The students will be able to interact socially and stimulate views, reconcile disagreements and help reach consensual conclusions.
PO8.	The students will be able to demonstrate compassionate social concern and act with a cognizant awareness of issues to contribute in civic life by volunteering impartially towards national development and thereby deliver effective citizenship.
PO9.	The students will be able to ethically recognize different value systems, understand the moral dimensions of individual decisions and accept responsibility for them.
PO10.	The students will be able to recognize the issues of environmental perspectives and appreciate sustainable development for long term environmental sustainability.
PO11.	The students will be able to engage themselves in life long self determining and learning in the comprehensive background of socio technological changes for continued self directed and life long learning.

Programme Specific Outcomes (PSO)

PSO1.	The students after the completion of this programme will be able to contemplate and comprehend Classical Sociological Tradition. Students would be able to understand sociological phenomena of individuals, socio ethnic structures, socio cultural institutions and socio economic inequality
PSO2.	The students after the completion of this programme will be able to contemplate and comprehend Philosophical and Conceptual Foundation of Social Research. Students would be able to effectively communicate and draft sociological concepts and theories associated with real life situations.
PSO3.	The students after the completion of this programme will be able to contemplate and comprehend Social Change in India. Students would be able to perform analytical thinking on the basis of survey, census & research of qualitative and quantitative data & information.

PSO4.	The students after the completion of this programme will be able to contemplate and comprehend Rural Sociology. Students would be able to become a thorough professional with social intellect so as to have career opportunities galore social welfare, rural development, public policy, governance, business, social foundations, NGO and academia.
PSO5.	The students after the completion of this programme will be able to contemplate and comprehend Classical Sociological Thinkers.
PSO6.	The students after the completion of this programme will be able to contemplate and comprehend and apply Quantitative Research Techniques in Sociology.
PSO7.	The students after the completion of this programme will be able to contemplate and comprehend Sociology of Development.
PSO8.	The students after the completion of this programme will be able to contemplate and comprehend Indian Rural Society.
PSO9.	The students after the completion of this programme will be able to contemplate and comprehend Classical Sociological Theories.
PSO10.	The students after the completion of this programme will be able to contemplate and comprehend Social Movements in India.
PSO11.	The students after the completion of this programme will be able to contemplate and comprehend Perspectives of Study to Indian Society.
PSO12.	The students after the completion of this programme will be able to contemplate and comprehend Industry and Society in India.
PSO13.	The students after the completion of this programme will be able to contemplate and comprehend Criminology.
PSO14.	The students after the completion of this programme will be able to contemplate and comprehend Modern Sociological Theories.
PSO15.	The students after the completion of this programme will be able to contemplate and comprehend Comparative Sociology.
PSO16.	The students after the completion of this programme will be able to contemplate and comprehend Contemporary issues in Industry.

Course Outcomes (CO)

Paper Code	Paper Name	Course Outcome
SOC. 101	INTRODUCTION TO SOCIOLOGY	ENABLE TO UNDERSTAND THE CONCEPT OF SOCIOLOGY
		ENABLE TO UNDERSTAND THE SIGNIFICANCE OF SOCIETY AND SOCIAL INSTITUTIONS
		UNDERSTAND THE TYPES AND THEORIES OF SOCIAL MOBILITY
		UNDERSTAND TO SOCIAL CHANGE
		ENABLE TO UNDERSTAND THE APPLIED SOCIOLOGY & ITS IMPORTANCE
SOC. 102	CONTEMPORARY INDIAN SOCIETY	TO GAIN THE CLASSICAL PERSPECTIVE ABOUT THE INDIAN SOCIETY.
		TO ELABORATE ON THE STRUCTURE AND COMPOSITION OF THE INDIAN SOCIETY.
		TO GET INSIGHT OF THE BASIC INSTITUTIONS OF THE INDIAN SOCIETY.
		TO ATTAIN AWARENESS REGARDING THE EXISTING FAMILIAL PROBLEMS.
		TO ELUCIDATE THE PREVAILING SOCIETAL PROBLEMS.
SOC. 103	SOCIOLOGY OF TRIBAL SOCIETY	TO ACQUIRE UNDERSTANDING OF THE SOCIOLOGICAL ASPECT OF THE TRIBAL SOCIETY.

		TO DESCRIBE THE CLASSIFICATION OF THE TRIBAL PEOPLE AND THEIR ECONOMY.
		TO COMPREHEND WHAT IS THE SOCIO-CULTURAL PROFILE OF TRIBE.
		TO FAMILIARIZE STUDENTS WITH SOCIAL MOBILITY, VARIOUS TRIBAL MOVEMENTS AND SCHEMES OF TRIBAL DEVELOPMENT.
		TO ACQUAINT STUDENTS ABOUT DIFFERENT TRIBAL PROBLEMS AND TRIBAL COMMUNITIES IN CHHATTISGARH.
SOC. 104	CRIME AND SOCIETY	ENABLE TO KNOW THE CONCEPT OF CRIME & ITS TYPES
		ENABLE TO KNOW THE MAJOR SOCIAL PROBLEMS AND CHALLENGES
		AWARENESS OF CONTEMPORARY SOCIAL PROBLEMS IN INDIA
		ENABLE TO KNOW THE CONCEPT OF CORRECTIONS: PERSPECTIVES & THEORIES
		UNDERSTANDING OF PRISON REFORM, TREATMENT & REHABILITATION
		TO KNOW THE VARIOUS ORGANISATIONS OF CORRECTIONAL INSTITUTIONS
SOC. 201	SOCIOLOGY OF TRIBAL SOCIETY	TO ACQUIRE UNDERSTANDING OF THE SOCIOLOGICAL ASPECT OF THE TRIBAL SOCIETY.
		TO DESCRIBE THE CLASSIFICATION OF THE TRIBAL PEOPLE AND THEIR ECONOMY.
		TO COMPREHEND WHAT IS THE SOCIO-CULTURAL PROFILE OF TRIBE.
		TO FAMILIARIZE STUDENTS WITH SOCIAL MOBILITY, VARIOUS TRIBAL MOVEMENTS AND SCHEMES OF TRIBAL DEVELOPMENT.
		TO ACQUAINT STUDENTS ABOUT DIFFERENT TRIBAL PROBLEMS AND TRIBAL COMMUNITIES IN CHHATTISGARH.
SOC. 202	METHODS OF SOCIAL RESEARCH	STUDENTS WILL BE ABLE TO EXPLAIN THE MAJOR OBJECTIVES OF RESEARCH
		STUDENTS WILL BE ABLE TO EXPLAIN THE MAJOR RESEARCH APPROACHES TO RESEARCH DESIGN
		ENABLE TO KNOW THE TYPES OF RESEARCH
		STUDENTS ABLE TO KNOW THE TECHNIQUES OF DATA COLLECTION
		ENABLE TO KNOW THE VARIOUS TECHNIQUES AND METHODS OF STATISTICS
SOC. 203	CLASSICAL SOCIOLOGICAL TRADITION	TO DEVELOP AN UNDERSTANDING ABOUT THE HISTORICAL DEVELOPMENT OF SOCIAL THOUGHT.
		TO UNDERSTAND THE THEORIES BY COMTE.
		TO GAIN KNOWLEDGE ABOUT THE THEORIES BY DURKHEIM.
		TO COMPREHEND THE PARETO'S THEORIES.
SOC. 204	PHILOSOPHICAL & CONCEPTUAL FOUNDATION OF RESEARCH	STUDENTS WILL BE ABLE TO EXPLAIN THE MAJOR APPROACHES TO RESEARCH DESIGN
		THEY ABLE TO KNOW THE OBJECTIVES AND SCIENTIFIC METHODS
		THEY ABLE TO KNOW THE TECHNIQUES OF METHODS OF DATA COLLECTION
		THEY ARE KNOWING ABOUT THE VARIOUS TYPES OF RESEARCH
SOC. 301	SOCIAL CHANGE IN INDIA	TO DEVELOP AN UNDERSTANDING ABOUT THE HISTORICAL DEVELOPMENT OF SOCIAL THOUGHT.
		TO UNDERSTAND THE THEORIES BY COMTE.
		TO GAIN KNOWLEDGE ABOUT THE THEORIES BY DURKHEIM.

		TO COMPREHEND THE PARETO'S THEORIES.
SOC. 302	PHILOSOPHICAL & CONCEPTUAL FOUNDATION OF RESEARCH	STUDENTS WILL BE ABLE TO EXPLAIN THE MAJOR APPROACHES TO RESEARCH DESIGN
		THEY ABLE TO KNOW THE OBJECTIVES AND SCIENTIFIC METHODS
		THEY ABLE TO KNOW THE TECHNIQUES OF METHODS OF DATA COLLECTION
		THEY ARE KNOWING ABOUT THE VARIOUS TYPES OF RESEARCH
SOC. 303	SOCIAL CHANGE IN INDIA	GETTING ACQUAINTED THE CONCEPT OF SOCIAL CHANGE IN INDIA
		THEY ABLE TO KNOW THE TRENDS & PROCESS OF MODERN INDIA
		THEY UNDERSTAND TO KNOW THE TRIBAL & RURAL SOCIETY
		THEY UNDERSTAND TO KNOW THE INDUSTRIAL & URBAN SOCIETY
SOC. 304	RURAL SOCIOLOGY & INDIAN RURAL SOCIETY	THEY ARE ABLE TO KNOW THE INDIAN RURAL SOCIAL STRUCTURE
		THEY ARE ABLE TO KNOW DEMOCRATIC DECENTRALIZATION OF POWER
		TO UNDERSTAND THE CHANGES IN RURAL SOCIETY WITH REFERENCE TO AGRARIAN REFORM
		THEY ARE ABLE TO UNDERSTAND THE COMMUNITY DEVELOPMENT PROGRAM
SOC. 401	CLASSICAL SOCIOLOGICAL THEORIES & MODERN SOCIOLOGICAL THEORIES	To understand the contribution of Comte, Weber and Durkheim to the theory of Positivism.
		To know the Conflict theory by Marx, Dahrendorf and Coser.
		To be aware about the contribution of LeVistruess, Goldiner and Foucault on Structuralism.
		To comprehend the Social Exchange theory by Homans, Blau and Levi.
SOC. 402	PERSPECTIVE OF STUDY TO INDIAN SOCIETY & COMPARATIVE SOCIOLOGY	ABLE TO KNOW DISTINCTIVE CHARACTERISTICS OF INDIAN SOCIETY
		UNDERSTAND THE STRUCTURAL FUNCTIONALISM PERSPECTIVE
		UNDERSTAND THE MARXISM : CRITICISM & PRESENT STATUS
		UNDERSTAND THE SUBALTERN PERSPECTIVE & CIVILIZATION PERSPECTIVE
SOC. 403	INDUSTRY AND SOCIETY IN INDIA	To explain industrial relations and elaborate on educational training and development of manpower.
		To understand contemporary issues relating to Industrialization.
		To identify Labour welfare schemes and the role of ILO and Trade Unions.
		To explain industrialization in the third world countries in the era of Globalization.
SOC. 404	CRIMINOLOGY	ENABLE TO KNOW THE THEORIES OF CRIME
		AND CRIMINAL BEHAVIOUR
		UNDERSTAND THE TYPES OF CRIME AND DEVIANT BEHAVIOUR
		ENABLE TO KNOW THE CAUSES, CONSEQUENCES & PREVENTION TO DEVELOP THE KNOWLEDGE OF REFORMATORY THEORY & PRISON SYSTEM



Government D.B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: M.A. PUBLIC ADMINISTRATION

PROGRAM CODE: MAPUB09

SCHEME OF PROGRAMM :AT A GLANCE

Semester-I

S.No	Paper	Theory	Seminar	Total Marks
1	Introduction to Public Administration	80	20	100
2	Recent trends in Public Administration	80	20	100
3	Indian Administration	80	20	100
4	Development Administration	80	20	100
	TOTAL			400

Semester- II

S.No	Paper	Theory	Seminar	Total Marks
1	State Administration (With Special Reference to Chhattisgarh)	80	20	100
2	Municipal Govt, in India (With Special Reference to Chhattisgarh)	80	20	100
3	Rural Development & Tribal Welfare in Chhattisgarh	80	20	100
4	Panchayati Raj (With Special Reference to Chhattisgarh)	80	20	100
	TOTAL			400

Semester- III

S.No	Paper	Theory	Seminar	Total Marks
1	Comparative Public Administration	80	20	100
2	Personnel Administration and Human Resources Development	80	20	100
3	Research Methodology in Public Administration	80	20	100
4	Administrative law	80	20	100
	TOTAL			400

Semester- IV

S.No	Paper	Theory	Seminar	Total Marks
1	Civil Services in India	80	20	100
2	Administrative Thinkers	80	20	100
3	Management of Public Enterprises & Industrial Relations	80	20	100
4	Financial Administration	80	20	100
	TOTAL			400

PROGRAMME OUTCOMES

PO1	To promote a commitment to the improvement of government and social institutions.
PO2	To educate the students about generalist public management knowledge and skills.
PO3	Prepare students to initiate and facilitate interactions between government, for-profit, and nonprofit sectors to provide ethical and workable solutions to societal needs.
PO4	Educate students to be compassionate and effective leaders who humanely manage public Organizations
PO5	Translate research into effective practices and achievable, human policies.
PO6	Impart the students the important skills like conceptual;, entrepreneurial, and analytical skill for the acquisition of academic theory and skills to foster an ethical commitment to the public service values of serving the public interest with accountability and transparency.
PO7	To encourage students to acquire knowledge ,skills and capabilities arising from the need for a more efficient and effective public administration.

PROGRAMME SPECIFIC OUTCOMES

On completion of the program graduates will be expected to be able to

PSO1	Apply Critical thinking and problem solving skills to complex strategic decisions.
PSO2	Analyze issues through the collection and use of qualitative and quantitative data.
PSO3	Interact with respect and fairness with diverse groups of people.
PSO4	Manage financial resources responsibility. Use ethical leadership in transparent, accountable decision making for the common good.
PSO5	Analyze the implementation and effects of public policies and laws.
PSO6	A respect for and ability to engage the diversity of perspective and interest involved in local governance.
PSO7	Create and evaluate strategic plans to promote organizational effectiveness and minimize risk, Communicate organizational needs and decisions effectively in written and oral forms.
PSO8	Career in Local and state govt. services, Central services. Career opportunities in the political world.
PSO9	Work as an administrator for a political action, educational or public interest groups, for a political party or lobbying organization or on a campaign.

COURSE OUTCOMES

Paper I	Introduction to Public Administration	1 Meaning, Definition, Nature, Scope and Significance of Public Administration 2 Approaches to the study of public administration & development of the discipline. 3 Concept of organization; line & staff departments, public corporation & independent regulatory commission. 4 Concept of centralization, decentralization & delegation. 5 Administrative process like - policy formulation, decision making communication, leadership & motivation.
Paper II	Recent trends in Public Administration	1.Social media 2.Mobile governance 3.E-Learning 4.Legislative Control Executive Control Judicial Control Citizens Control
Paper III	<u>Indian Administration</u>	The student will acquire knowledge about: 1. Evolution & present scenario of Indian Administration. 2. Parliamentary democracy & political executive. 3. Departments & board & commission. 4. Union-state relations, administrative reforms
Paper IV	<u>Development Administration</u>	1. Concept & theory of development administration. 2. Features of developed & developing countries. 3. Concept of modernization, economic development & development programs. 4. Political development, social change and planning machinery in India. Development and bureaucracy, public participation & environment development
Paper I	<u>State Administration</u>	1. State government & administration. 2. Organization & working of state finance commission & state election commission & state planning commission. 3. Administration at the districts level. 4. Analyze some administrative issues like minister secretary relationship, ARC-I & II, administrative corruption.
Paper II	<u>Municipal Govt. of India</u>	1. Concept of local self Govt. & 74th constitutional amendment. 2. Organization & functions of municipal corporations.

		<p>3. Personnel administration of municipal employees & state control and municipal administration & deliberative- executive relationship.</p> <p>4. Committee system & problems & reforms in local self govt. Smart City Project, Swarna Jayanti Sahri Rojgar Yojna.</p>
Paper III	<u>Rural Development & Tribal Welfare</u>	<p>1. Concept of rural development dimensions of rural poverty & role of NGOs in rural development.</p> <p>2. Various rural development schemes like MNREGA, Swachha Bharat Mission, social audit & Digital India.</p> <p>3. Rural development policy & strategy approaches to rural development machinery for rural development in</p> <p>4. Tribal welfare at district, block & village level in Chhattisgarh, legislation, problems & schemes tribal welfare.</p>
Paper IV	<u>Panchayati Raj</u>	<p>1. Concept & evolution of Panchayati Raj 73rd constitutional amendment.</p> <p>2. Structure, Power & functions of three tier Panchayati Raj in Chhattisgarh.</p> <p>3. Source of revenue of PRIs, state control over PRIs & rate of PRIs for weakens sections & women.</p> <p>4. Deliberative - executive relationship in PRIs, political parties & pressure group in PRIs, problems of PRIs.</p> <p>E- Panchayats self-help groups & public distribution system in Chhattisgarh</p>
Paper I	<u>Comparative Public Administration</u>	<p>1. Concept & evolution of comparative public administration.</p> <p>2. Approaches to study of comparative public administration.</p> <p>3. Analyze Weber's typology of authority & ideal type of bureaucracy, Rigg's typology of societies & prismatic-sala model.</p> <p>4. Administrative system of U.K., China, U.S.A. & France.</p> <p>5. Analyze whitleyism in Britain IRC in U.S.A. prefect in France, ombudsman in Sweden & role communist party in China.</p>
Paper II	<u>Human resource development & personnel Administration</u>	<p>1. Concept of personnel administration & human resource management.</p> <p>2. Concept & theories of Max Weber & Karl Marx About bureaucracy.</p>

		<p>3. Recruitment, position classification & training of personnel in U.K, U.S.A. & France.</p> <p>4. Concept of promotion, discipline morale & motivation. Employer & employee relationship</p>
Paper III	<u>Research Methodology in Public Administration</u>	<p>1. Concept of research design, hypothesis and sampling.</p> <p>2. Construction of questionnaires and schedules role of interviewer.</p> <p>3. Other methods of data collection.</p> <p>4. Processing of data classification, tabulation and analysis of data. Measurement of central tendency</p>
Paper IV	<u>Administrative Law</u>	<p>1. Concept of administrative law & rule of law.</p> <p>2. Concept of delegated legislation legislative & judicial control over delegated legislation.</p> <p>3. Concept & Functions of administrative tribunals.</p> <p>4. Concept of natural justice legal remedies & liabilities of state.</p> <p>5. Lokpal & Lokayukta, central vigilance commission & public interest litigation (PTI.).</p>
Paper I	<u>Civil Service in India</u>	<p>1. Concept and structure of civil service, recruitment, training & promotion.</p> <p>2. Salary administration.</p> <p>3. Structure and function of UPSC, PSC & SSC.</p> <p>4. Political right and right to strike & condition of service, conduct rules disciplinary action and machinery for redress of civil service grievances.</p>
Paper II	<u>Administrative Thinkers</u>	<p>1. Theories of kautilya.</p> <p>2. Theories of Woodro Wilson , F.W.Taylor , henri Fayol , Mary Parker Follet , Herbert Simon, Max Weber , f.W. riggs , Luther Gullick , Lyndall Urwick ,George Elton Mayo & Abroham Maslow.</p>
Paper III	<u>Management of Public Enterprises and Industrial Relations</u>	<p>1. The role of public enterprises in national economy & problems of nationalization.</p> <p>2. Forms of organization, government control & parliamentary accountability.</p> <p>3. Concept of managerial personnel & problems of industrialization.</p>

		<p>4. Labour welfare and its influence social security in India, U.K. and USA.</p>
Paper IV	<p><u>Financial Administration</u></p>	<p>1. Ministry of finance and financial administration.</p> <p>2. Budget types & techniques.</p> <p>3. Control over public expenditure.</p> <p>4. Finance commission, 14th finance commission, fiscal management policy and monetary policy.</p>



FACULTY OF PSYCHOLOGY

Government D. B. Girls Postgraduate College, Raipur

Programme: Post Graduate Diploma in Psychological Guidance & Counseling

PROGRAMME CODE: PGPGC

Programme Outcomes (PO)

It is a yearly program where the students learn about the process of Guidance and Counselling in different applied areas of life-School Career, Old age, Drug Abuse, Vocational, and Personal, They develop a foundation for counselling & guidance by understanding the theories and concepts of guidance and counselling, with internship and tool-making, they get hands-on training for taking guidance & counselling as a career.

Programme Specific Outcomes (PSO)

PSO 1	Demonstrate knowledge of the major theoretical approaches and findings in the field of psychological guidance and counselling.
PSO 2	Cultivate the skill to apply psychological assessment methods and principles to assess behaviour and mental health in guidance and counselling relevant settings.
PSO 3	Demonstrate skills and proficiency of the future psychologists, equipped with ability for counselling, guidance, mental training for performance enhancement based on knowledge and training through internships.
PSO 4	Developing research aptitude through projects and having opportunity of innovation in psychological research by developing psychological tools with sensitivity to ethical principles.

Course Outcomes (CO)

Course Code	Paper Name	Course Outcome
PGDPGC 101	PSYCHOLOGICAL GUIDANCE	Meaning, FunctionS, and Approaches to guidance. Techniques of guidance, Anecdotal record, Socio-metric devices, Organisation of guidance program, Guidance services for children, and schools. Guidance services, vocational, personal, family, and adult guidance services, Emerging trends in guidance
PGDPGC 102	COUNSELLING THEORIES AND TECHNIQUES	Meaning, Purpose, and Goals of Counseling, Professional issues. Theories and Techniques of Counseling, Cognitive and Behavioral ApproachES, Indian contribution -yoga and meditation. Counseling Application- in School, Career, and Crisis Intervention. Management of Shyness, smoking , Euresis, and Problems in decision making.
PGDPGC 103	FIELD EXPLORATION	The Internship Program consists of Two-Phase, 30 days of each.
PGDPGC 104	LAB PRACTICALS	Construction of Guidance Tool and Psychological Testing



Government D. B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: Post Graduate Diploma in Yoga Education and Philosophy

PROGRAMME CODE: PGYGC

SCHEME OF PROGRAMM :AT A GLANCE

Course Code	Course Title
PGDYP 101	THEORITICAL YOGA VIJNAN
PGDYP 102	APPLIED YOGA VIJNAN
PGDYP 103	PRACTICAL-I
PGDYP 104	PRACTICAL-II
PGDYP 201	YOGA PHILOSOPHY
PGDYP 202	HATHA YOGA
PGDYP 203	PRACTICAL-I
PGDYP 204	PRACTICAL-II

PROGRAMME OUTCOMES

Certificate in Yogic Science course provides detailed knowledge to students about Yoga, basic yoga practices and benefits of yoga in daily life. This course helps learners in learning the effects of Yoga on health and overall personality of the practitioner. Students who are interested in yogic activities and have the sole aim to be physically fit are well suited to this course. Students must be good at time management and must be calm and composed to pursue this course. The career options in this course include jobs in diverse fields such as Schools and Colleges, Health Centers, Ministry of Ayush etc. On completion of this program, professionals can opt for jobs with diverse profiles such as Yoga Instructors, Teachers, and Health Inspectors. Students can also go for higher studies in Yoga Education after completion of this program.

PROGRAMME SPECIFIC OUTCOMES

The course will benefit aspiring yoga teachers, new yoga/ health/ medical and capable young yoga practitioners and general people who want to learn or use yoga techniques from Ashtanga Yoga, Hath Yoga, Raja Yoga and yogic management of various diseases & psychosomatatic disorders through practice of yoga & it 's techniques, diet and nutrition. The course will further give an insight to the students about human body, functioning of organs & systems of body & the effect of various yogic practices in maintaining complete health of an individual. To prepare students as qualified leaders in the field of Physical Education and Sports.

COURSE OUTCOMES

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
PGDYP 101	Theoretical Yoga Vijnan	Understand the yoga importance and their uses of our daily life
PGDYP 102	Applied Yoga Vijnan	Understand the health, life pattern of yoga, human body, mind and yogic management
PGDYP 103	Practice teaching (Indoor) Asanas, Kriyas, Pranayamas, Class arrangement, Meditation	Learn and develop to teaching skills, steps of yoga and their benefits
PGDYP 104	Pawanmuktasana part-1,2&3 Asanas, Nadishodhan and Pranayamas, Mudra, Bandha, Shawaasana	Learn and develop to given yoga activities
PGDYP 201	Yoga Philosophy	Understand the yoga philosophy, yoga sutra, kinds of yoga and psychomatric disorder and its yogic management
PGDYP 202	Hatha Yoga	Gain the knowledge of ancient yogic text with scientific explanation of yoga
PGDYP 203	Practice teaching (Indoor) Asanas, Kriyas, Pranayamas, Class arrangement, Meditation	Learn and develop to teaching skills, steps of yoga and their benefits
PGDYP 204	Balancing asanas, Asanas of higher group, Surya namaskar, Pranayama, Bandha, Mudra, Shatkarma, Dhyana & Yoganidra	Learn and develop to given yoga activities



DEPARTMENT OF BOTANY

Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAM: M. Sc. Botany

PROGRAM CODE: MSBOT01

SCHEME OF PROGRAM AT A GLANCE

First Semester:

Course	Course title	Theory Course				Practical Course		
		Sem. Exam.	Seminar	Int. Test	Total	Course	Exam.	Course contents
BOT. 101	Cytology	80	10	10	100	Lab. Course-I	100	Based on theory paper I & II
BOT. 102	Genetics	80	10	10	100			
BOT. 103	Microbiology, Phycology And Mycology	80	10	10	100	Lab. Course-II	100	Based on theory paper III & IV
BOT. 104	Bryophyta, Pteridophyta & Gymnosperm	80	10	10	100			
				Total	400		200	

Second Semester:

BOT. 201	TAXONOMY & DIVERSITY OF ANGIOSPERMS	80	10	10	100	Lab. Course-I	100	Based on theory paper I & II
BOT. 202	MOLECULAR BIOLOGY	80	10	10	100			
BOT. 203	PLANT PHYSIOLOGY	80	10	10	100	Lab. Course-II	100	Based on theory paper III & IV
BOT. 204	PLANT METABOLISM	80	10	10	100			
				Total	400		200	

Third Semester:

BOT. 301	PLANT DEVELOPMENT & RESOURCE UTILIZATION	80	10	10	100	Lab. Course-I	100	Based on theory paper I & II
BOT. 302	PLANT ECOLOGY & DIVERSITY	80	10	10	100			
BOT. 303	BIOTECHNOLOGY & GENETIC ENGINEERING OF PLANTS & MICROBES	80	10	10	100	Lab. Course-II	100	Based on theory paper III & IV
BOT. 304	ELECT.-MICROBIAL ECOLOGY	80	10	10	100			
BOT. 305	ELECT. - ETHNOBOTANY	80	10	10	100			
				Total	400		200	

Fourth Semester:

BOT. 401	PLANT REPRODUCTION	80	10	10	100	Lab. Course-I	100	Based on theory paper I & II
BOT. 402	PLANT ECOLOGY & CONSERVATION	80	10	10	100			
BOT. 403	BIOTECHNOLOGY PLANT CELL, TISSUE AND ORGAN CULTURE	80	10	10	100	Lab. Course-II	100	Based on theory paper III & IV
BOT. 404	ELECTIVE PAPER-MICROBIAL ECOLOGY	80	10	10	100			
BOT. 405	ELECTIVE PAPER- ETHNOBOTANY	80	10	10	100			
				Total	400		200	

-----:: PROGRAM OUTCOMES :: -----

The unique capability of plants to trap solar energy providing food, shelter & cloths to human society and fulfill the requirement of oxygen in atmosphere to survival of the life on the Earth that can't be replicated /substituted by any other system. Plant science is now an amalgamation of basic and applied science; whereas

conventional studies about plants are now being supplemented with biochemical & molecular techniques as well instruments / electrical-electronic devices based study.

As much beneficial to the learners, the courses have been designed to study various aspects of plant science including its practical applications; keeping in mind that these students would be strongly able to take up teaching work at different levels, research work in research institutes and/or industry / for doctoral degree, environment impact assessment, biodiversity studies, entrepreneurship, scientific writing relevant topics after completion of this program.

PO1-	Understanding the classification of plants from cryptogams to Spermatophyte and identification of the flora in field. Paleobotany to trace the evolution of plants.
PO2-	Study of biodiversity in relation to habitat correlate with climate change, land and forest degradation, ecosystem management and plant community in social welfare.
PO3-	Diverse knowledge of viruses, bacteria and fungi as their beneficial or harmful features, especially pathogenic behavior and application of Botany in agriculture through study of plant pathology.
PO4-	To understand the multi functionality of plant cells in production of fine chemicals and ultra structure & function of cell membranes, cell communications, signaling, genetics, anatomy, taxonomy, ecology and plant Physiology as well as biochemistry
PO5-	By completing the course must be able to identify various life forms of plants, design and execute experiments related to basic studies on evolution, ecology, developmental biology, plant interactions with microbes and insects, morphology, anatomy, reproduction, ethno-botany and genetics, especially crop genetics and plant breeding
PO6-	To be competent enough in various analytical and technical skills related to plant sciences including microbiology, molecular biology, recombinant DNA technology, Genomics, proteomics, transgenic technology and its application for human welfare.
PO7-	Must be aware with molecular and physiological adaptations in plants in response to biotic and abiotic stress. Genes responsible for stress tolerance genetic engineering of plants
PO8-	To be familiarized also with industrial applications of plant science and the use of bioinformatics tools and databases and in the application of statistics to biological data.
PO9-	To be competent enough in various analytical and technical skills related to plant sciences and the student completing the course is capable to perform short research projects using various tools and techniques in plant sciences and develop scientific temperament and research attitude.

---:: PROGRAM SPECIFIC OUTCOMES :--

Students would be benefited with knowledge of core subjects like plant diversity, physiology and biochemistry, molecular Cytogenetics and application of statistics etc. which are offered in these subjects Modules on analytical techniques, plant tissue culture and phytochemistry would make them obtain skills in doing research. All the courses in the program are carefully designed to equip the students for competitive exams like CSIR NET, SET etc. and to write research proposals for grants.

PSO1-	<i>Application of knowledge</i>	Maintain a high level of scientific excellence in botanical research with specific emphasis on the role of plants. Create, select and apply appropriate techniques, resources and modern technology in multidisciplinary way. Practice of subject with knowledge to design experiments, analyze and interpret data to reach to an effective conclusion.
PSO2-	<i>Ability to convey the concept clearly</i>	They would identify, formulate and analyze the complex problems with reaching a substantiated conclusion. Logical thinking with application of biological, physical & chemical sciences. Learning that develops analytical and integrative problem-solving approaches
PSO3-	<i>Team work</i>	Students would perform functions that demand higher competence in national/international organizations with sporty spirits and helping each other.
PSO4-	<i>Honesty and Integrity, Ethics</i>	Student should be aware of ethical issues and regulatory considerations while addressing society needs for growth with honesty.
PSO5-	<i>Environmental & Sustainability</i>	Best problem-solving skills in students would encourage them to carry out innovative research projects thereby making them to use knowledge creation in depth of the subject.
PSO6-	<i>Lifelong learning & motivating to others</i>	They would lend the support to other students to grow with them with equal opportunities and significant contribution for society as well as Nation.
PSO7-	<i>Global thinking</i>	Knowledgeable disciplined students with good values, ethics, kind heart will help in nation building globally.

---: COURSE OBJECTIVES & OUTCOMES :---

COURSE CODE	COURSE OBJECTIVES	COURSE OUTCOMES
BOT. 101	To make students aware with the concepts of structural & functional organization of Plant cells and specialized plant cell types including Cell wall, Plasma membrane, plasmodesmata, Cytoplasmic organelles & inclusions, cytoskeleton, nucleus, cell cycle and apoptosis.	By completion the course, Students will be able to understand- CO1- The structural & functional aspects of cell organelles. in relation to function of cells as the fundamental unit of life CO2- Apply the principles of cell biology in designing experiment, statistical analysis, and interpretation of results CO3- Get acquainted with basic concept of cell growth / cycle that approaches in the research methodology.
BOT. 102	To increase the understanding about the microbial world and diversity, phylogeny, biology, sexuality and economic importance of Viruses, Phytoplasma, Archae / Eubacteria, and Fungi with their interactive behavior Pathogenicity and its control.	CO1- Comprehend the diversity of microorganisms; collection and study of these microbes from different localities and identification up to generic level. CO2- Recognize the habitat, Morphology, Taxonomy, Pathogenicity, Phylogeny, Physiology, Reproduction and lifecycle pattern. CO3- Their diversity and familiarize with various ecological niche.
BOT. 103	To increase the understanding of the students about the diversity of lower plants; their classification, structure growth, life cycle and evolutionary trends within Algae, Bryophyta & Pteridophyta or towards higher plants.	CO1- Comprehend the diversity of lower cryptogams (Algae, Bryophyta and Pteridophyta), their Collection and study from different localities and identification up to generic level. CO2- Recognize the morphology, anatomy, taxonomy, physiology, reproduction and lifecycle pattern. CO3- Their diversification and familiarize with various ecological niche with its Positive and negative values.
BOT. 104	To educate student about the mechanism and physiology life processes in plants. It focuses on the plant nutrient uptake and translocation, photosynthesis, respiration and nitrogen metabolism.	CO1- Familiar with various physiological aspects involved in the plant development and the mechanism of photosynthesis, respiration, nitrogen and lipid metabolism. CO2- Able to isolate starch, pectin and other nutritive products from plants. CO3- Qualitative and quantification of the plant contents and its biochemistry and mode /mechanism of synthesis etc.
BOT. 201	To provide a foundation and background in prokaryotic and eukaryotic genome, concept of chromosomal entities and anomalies, role in evolution, function/expression, regulation and mutation of gene at molecular level.	CO1- Able to know about the induction of polyploidy in plants and isolation of mutants using physical and chemical mutagenic CO2- Mitotic index & karyotype analysis and meiotic behavior of monosomy, trisomy, translocation in plants and its effect. CO3- Chromatin organization, structural & numerical alterations in chromosomes & chromosomal behavior in mutagen treated plants.
BOT. 202	To increase the understanding about the biology & diversity of Gymnosperm with their evolutionary trends, concept of fossil flora and economic importance	CO1- Able to know about morphological, anatomical and developmental patterns of gymnosperms. CO2- To know about the reproductive parts, its development and mechanism and life cycle pattern with evolutionary trends. CO3- Wood, seed, secretory products and its economic importance
BOT. 203	To elaborate the knowledge about the diversity of higher plants, their distribution, description, identification, evolution & their classification including recent advances in the field of taxonomy, the concept of Phytogeography and sustainable utilization of bio- resources	CO1- Able to description of a plant specimen and study of locally available families of flowering plants. CO2- Identification of genus and species of locally available wild plants and preparation of botanical keys at generic level by locating key characters. CO3- Knowledge of native medicinal plant species and modern concept of taxonomy
BOT. 204	To provide a foundation in Biochemistry, Enzymology, Bioenergetics including lipid metabolism, Photobiology, concept of Flower physiology, Plant growth regulators including its application.	CO1- Familiar with various biochemical aspects and bioenergetics involved in the plant growth & development. CO2- Also the concept and mechanism of flower physiology, photobiology, growth regulators and metabolism of N ₂ & lipid. CO3- Qualitative and quantification of the secondary metabolites and its biochemistry and mode /mechanism of synthesis etc.
BOT. 301	To increase the acquaintance of mechanisms associated with development, differentiation and structure of various plant organs including the concept of primary & secondary growth correlated to the environment.	CO1- Able to know about anatomical structure, their developmental patterns and adaptive features of higher plants. CO2- Mechanical tissues, secretory tissues (mucilage canals, resin canals, nectaries, and oil glands) and laticifers. CO3- Vascular tissues by sections and maceration, wood anatomy, TS, TLS and RLS and Normal & abnormal secondary growth
BOT. 302	To elaborate the knowledge about the concept of reproduction & development in higher plants including pollination, fertilization, embryo- genesis and development of seeds & fruits with basic idea of senescence and programmed cell death	CO1- Develop the understanding of growth, development and reproduction in plants as well as understand the physiological and metabolic changes happening along with the environmental impact. CO2- Acquaring the basic concept reproductive procedure in flowering plants and nutritive adaptations. CO3- Well Concept of seed & fruits development and awareness with senescence and programmed cell death

BOT. 303	To ensure the concept, principle, aim, scope, basic requirements and applied aspects of plant tissue culture including organogenesis, embryogenesis, Somatic hybridization and its role in crop improvement and Germplasm conservation for human welfare.	CO1- Able to know about Equipment's required in Tissue culture Lab and Media preparation techniques for different plants with Sterilization techniques for media as well as for explants CO2- Explant Culture - Anther culture, Pollen culture, Embryo rescue technique, Micropropagation and Protoplast fusion techniques. CO3- Somaclonal variation, isolation of protoplasts and viability testing and Tissue culture of important horticultural, medicinal plants
BOT. 304	To provide a foundation in Plant pathology elaborating the knowledge of Characteristics & Pathogenicity of pathogens, methods of studying Plant diseases (in-situ & ex-situ) and Host Parasite relation	CO1- Well understanding the concept of plant pathology and about causal organisms of plant diseases as well as symptomology. CO2- Know the methods / techniques of studying the plant diseases, host parasite relationship, Pathogenicity and disease cycle. CO3- Know the prevention and control measures of plant diseases and its effect on economy of crops
BOT. 305	To educate student about the concept of Plant breeding with history, scope and achievement at national & global level elaborating methods of Breeding in self and cross pollinated crops, also for Stress Resistance	CO1- Familiar with the science of plant breeding with well concept of domestication, plant introduction and acclimatization CO2- Acquaintance of the methods of plant breeding of self & cross pollinated crops for the survival of human being from starvation CO3- Understand the modern strategies applied in genetics and plant breeding to produce improved & resistant varieties.
BOT. 401	To introduce the concepts and principles of ecology, ecosystem structure and function, ecosystem management & conservation, sustainable development, population, community, pollution, climatic changes, Eco-stability and application of these concepts to solve environmental problems	CO1- Able to analyze various types of ecosystems, correlate different ecosystems and also trained in the environmental impact analysis CO2- To analyze the threat and suggest conservative measures and ecosystem management for sustainable development / ecosystem stability for healthy environment. CO3- Able to analyze, monitor of various physical, chemical and biological properties of soil water and air, correction with various community under climatic changes.
BOT. 402	To elaborate the knowledge of the concept of biodiversity, diversity in domesticated plants utility and conservation strategies of natural resources, also focusing on the roles of various organizations related to the plant species.	CO1- Systematic understanding of biodiversity and its vital role in ecosystem function and concepts mega diversity regions. CO2- Identify the importance of diversity in natural environments and critically examine the human linkages for its conservation CO3- Application of knowledge in general communication for public extension /organizations
BOT. 403	To provide a contextual and inquiry based learning of modern day advances in the field of recombinant DNA technology Microbial genetic manipulation, Genomic & Proteomics and their applications in basic and applied research for human welfare.	CO1- Able to apply genetic engineering tools in crop improvement and molecular tools in microbial genetic manipulation. CO2- Use the Bioinformatics toll in biological data analysis and classify different types of biological databases CO3- Able to explain the methods used for biotechnology for society and environment.
BOT. 404	To elaborate the knowledge of disease development, disease cycle and control of plant diseases, especially viral, bacterial fungal and nematode diseases in crop fields to increase the agricultural productivity.	CO1- Systematic understanding the concept disease development, nature / types of diseases and control measures of plant diseases. CO2- Diverse knowledge of fungal / viral / mycoplasma /bacterial /nematode diseases in crop plants in native region. CO3- Confident for diseases identification, the prevention and control measures to save the crop production of that region /nation
BOT. 405	To introduce the concepts & principles of crop genetics and plant breeding focusing on theme of mutation, polyploidy and biotechnology in crop improvement including seed technology to overcome the global problem of food crisis.	CO1- Familiar with the principle & concept of Crop genetics and plant breeding with well concept of polyploidy, mutation and recombinant DNA technology for crop improvement. CO2- Knowledge of seed technology to coordinate the improved crop's production to overcome the global problem of food crisis CO3- Familiar with biostatistics and various agencies concerned.

.Dept. of Botany

DEPARTMENT OF CHEMISTRY

PROGRAM: M.Sc. Chemistry

Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAM: M. Sc. Chemistry

PROGRAM CODE: MSCHE02

SCHEME OF PROGRAM AT A GLANCE

First Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
CHE. 101	GROUP THEORY & CHEMISTRY OF METAL COMPLEXES	80	16	10	2	10	2	5	100
CHE. 102	CONCEPT IN ORGANIC CHEMISTRY	80	16	10	2	10	2	5	100
CHE. 103	QUANTUM CHEMISTRY, THERMODYNAMICS AND CHEMICAL DYNAMICS - I	80	16	10	2	10	2	5	100
CHE. 104	THEORY AND APPLICATIONS OF SPECTROSCOPY- I	80	16	10	2	10	2	5	100

Second Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
CHE. 201	TRANSITION METAL COMPLEXES	80	16	10	2	10	2	5	100
CHE. 202	REACTION MECHANISMS	80	16	10	2	10	2	5	100
CHE. 203	QUANTUM CHEMISTRY, THERMODYNAMICS AND CHEMICAL DYNAMICS - II	80	16	10	2	10	2	5	100
CHE. 204	THEORY AND APPLICATIONS OF SPECTROSCOPY –II	80	16	10	2	10	2	5	100

Third Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min	Max	Min		
CHE. 301	RESONANCE SPECTROSCOPY & PHOTOCHEMISTRY	80	16	10	2	10	2	5	100
CHE. 302	CHEMISTRY OF BIO-MOLECULES	80	16	10	2	10	2	5	100
CHE. 303	ANALYTICAL TECHNIQUES AND DATA ANALYSIS	80	16	10	2	10	2	5	100
CHE. 304	STATISTICAL THERMODYNAMICS, SOLID STATE POLYMER AND SURFACE CHEMISTRY	80	16	10	2	10	2	5	100

Fourth Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min.	Max	Min.		
CHE. 401	NATURAL PRODUCTS & MEDICINAL CHEMISTRY	CHE . 401	16	10	2	10	2	5	100
CHE. 402	CATALYSIS, MATERIAL & NUCLEAR CHEMISTRY	CHE . 402	16	10	2	10	2	5	100
CHE. 403	INSTRUMENTAL METHOD OF ANALYSIS	CHE . 403	16	10	2	10	2	5	100
CHE. 404	EN-VIRONMENTAL & APPLIED CHEMICAL ANALYSIS	CHE . 404	16	10	2	10	2	5	100

-----:: PROGRAM OUTCOMES :: -----

After completion of degree, students gained the theoretical as well as practical knowledge of handling chemicals. Also, they expand the knowledge available opportunities related to chemistry in the government services through public service commission particularly in the field of food safety, health inspector, pharmacist etc. Afford a broad foundation in chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective. Achieve the skills required to succeed in graduate school, professional school and the chemical industry like cement industries, agro product, Paint industries, Rubber industries, Petrochemical industries, Food processing industries, Fertilizer industries etc. Got exposures of a breadth of experimental techniques using modern instrumentation. Understand the importance of the elements in the periodic table including their physical and chemical nature and role in the daily life. Understand the concept of chemistry to inter relate and interact to the other subject like mathematics, physics, biological science etc. Learn the laboratory skills and safely to transfer and interpret knowledge entirely in the working environment.

PO1	Demonstrate and apply the fundamental knowledge of the basic principles in various fields of Chemistry
PO2	Create awareness and sense of responsibilities towards environment and apply knowledge to solve the issues related to Environmental pollution.
PO3	Apply knowledge to build up small scale industry for developing endogenous product.
PO4	Apply various aspects of chemistry in natural products isolations, pharmaceuticals, dyes, textiles, polymers, petroleum products, forensic etc. and also to develop interdisciplinary approach of the subject
PO5	collaborate effectively on team-oriented projects in the field of Chemistry or other related fields..
PO6	communicate scientific information in a clear and concise manner both orally and in Writing inculcate logical thinking to address a problem and become result oriented with a positive attitude.
PO7	Explain environmental pollution issues and the remedies thereof
PO8	Apply the knowledge to develop the sustainable and eco-friendly technology in Industrial Chemistry.
PO9	Have developed their critical reasoning, judgment and communication skills.
PO10	Augment the recent developments in the field of green and eco-friendly reactions, pharmaceutical, Bioinorganic Chemistry and relevant fields of research and development.
PO11	Enhance the scientific temper among the students so as to develop a research culture and implementation of the policies to tackle the burning issues at global and local level.

---:: PROGRAM SPECIFIC OUTCOMES ::---

PSO1-	Create an awareness of the impact of chemistry on the society, and development outside the scientific community.
PSO2-	Work in the pure, interdisciplinary and multidisciplinary areas of chemical sciences and its applications.
PSO3-	Analyse data obtained from various sophisticated instruments (like UV Vis, Fluorescence, FTIR, NMR, TGA/DTA/DSC, GCMS and HPLC) for the structured determination and chemical analysis.
PSO4-	Apply different appropriate approach towards planning and execution of research in frontier areas of chemical sciences
PSO5-	Enormous job opportunities at all level of chemical, pharmaceutical, food products, life oriented material industries
PSO6-	Specific competitive exams conducted by service commission, CSIR – NET etc.
PSO7-	Helps in understanding the causes of environmental pollution and can open up new methods for environmental pollution control
PSO8-	Become professionally trained in the area of industry, material science, lasers and nano-technology

----: COURSE OUTCOMES :----

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
CHE. 101	GROUP THEORY & CHEMISTRY OF METAL COMPLEXES	Enable student to learn the symmetry and symmetry elements their operation and the symmetry point group. This also enables students to form the character table of different point groups and their characteristics and spectroscopic properties.
		Enable to understand crystal field theory, Molecular orbital theory, types of complexes (octahedral, tetrahedral and square planar complexes), and type of bonding and Molecular orbital theory
		Enable to understand metal carbonyl and their structure and bonding, enable to, to understand the reactions of metal metal nitrosyl, di-nitrogen and di-oxygen complexes, tertiary phosphine as ligand. Enable to understand metal ligand equilibria stepwise and overall formation constants, trends in stepwise constants, factors affecting the stability of metal complexes
		Enable to understand the topic Isopoly and heteropoly acid. Also enable to learn the classification, preparation, properties and structures of Borides, Carbides, Nitrides and Silicides and Silicates
		Enable to understand metal clusters including higher boranes, carboranes, metalloboranes and metal locarboranes, metal carbonyl and halide cluster
CHE. 102	CONCEPT IN ORGANIC CHEMISTRY	Enable to learn the nature of bonding in organic molecules, electronic effects and aromaticity
		Enable to understand conformational analysis cycloalkanes, decalins, effect of conformation on reactivity, conformation of sugars, steric strain. To learn the stereochemistry which includes Elements of symmetry, chirality, methods of resolution, optical purity, stereospecific and stereoselective synthesis, etc.
		Enable to understand the generation and reactions of intermediates viz carbocations, carbanions, free radicals, carbenes and nitrenes. Sandmeyer reaction and Free radical.
		Enable to understand the pericyclic reactions and their mechanism.
CHE. 103	QUANTUM CHEMISTRY, THERMODYNAMICS AND CHEMICAL DYNAMICS - I	Enable to learn the mathematical concept in quantum chemistry which includes vector, dot cross and triple products, complex numbers and coordinate transformations differential and integral calculus, quantum mechanics, the Schrodinger equation and its applications.
		Enable to learn the basics other thermodynamics: Maxwell's thermodynamic relations and its applications.
		Enable to learn elementary electrochemistry which includes electrochemistry of solution, Debye-Huckel Onsager treatment and its extension, ion solvent interactions, Debye-Huckel-limiting law, Debye-Huckel theory for activity coefficient of electrolytic solutions.
		Enable to learn chemical dynamics viz methods of determining rate laws, consecutive reactions, collision theory of reaction rates, steric factor, activated complex theory, kinetic salt effects, steady state kinetics and thermodynamic and Kinetic control of reactions etc.
CHE. 104	THEORY AND APPLICATIONS OF	Enable students to know the basic terms of the spectroscopy and their uses in the spectroscopic phenomenon..

	SPECTROSCOPY- I	Microwave spectroscopy enables students to learn the type of the molecules and their interaction with microwave radiation. Also enable to learn the spectral properties and application of the microwave spectroscopy
		In this unit student learn about the different types of scattering spectroscopy, their principle, instrumentation and uses in the field of chemistry.
		Raman spectroscopy is the very important part of the spectroscopy enable student to know about the Raman Effect, theories of Raman Effect, instrumentation and its application in molecular structure.
CHE. 201	TRANSITION METAL COMPLEXES	Enable to understand the reaction mechanism of transition metal complexes includes energy profile of a reaction, reactivity of metal complexes inert and labile complexes, kinetic application of valence bond and crystal field theories, kinetics of octahedral substitution, a nation reactions etc.
		Enable to learn the electronic spectra and magnetic properties of transition metal complexes.
		Enable to learn the preparations, properties, nature of bonding and structure and reactions of transition metal complexes with unsaturated organic molecules such as alkanes, allyl, diene dienyl, arcne.
		Enable to understand the transition metals compound with bond to hydrogen: ransition metals compounds with bond to hydrogen. unit iv a-alkyls and aryls of transition metals: Types, routes of synthesis, stability and decomposition pathways, organocopper in organic synthesis
		Enable to learn the compounds of transition metal - carbon multiple bonds and structural characteristics, fluxional organometallic compounds.
CHE. 202	REACTION MECHANISMS	Enable to understand the aliphatic nucleophilic and aromatic nucleophilic substitution reaction and its mechanism.
		Enable to understand aliphatic electrophilic and aromatic electrophilic substitution reaction and its mechanisms.
		Enable to learn the addition reaction to carbon-carbon multiple bonds, mechanislic and stereochemical aspects of addition reactions.
		Enable to understand the addition to carbon-hetero multiple bonds, Mechanism ofmetal hydride reduction of saturated and unsaturated carbonyl compounds.
CHE. 203	QUANTUM CHEMISTRY, THERMODYNAMICS AND CHEMICAL DYNAMICS - II	Enable to understand the application of matrices Angular Momentum in quantum chemistry and the approximation methods..
		Enable to understand the thermodynamics of non ideal gases and non equilibrium thermodynamics.
		Enable to learn electrochemistry II includes the shucture of electrified interfaces. Gouy-Chapman, Stem, over potentials and exchange current density, Derivation of Butler - Volmer equation, Tafel plot. Semiconductor interfaces, Theory ofdouble layer at semiconductor, electrolyte solution interfaces, structure of double layer interfaces
		Enable to understand chemical dynamics- II: General features of fast reactions by flow method, relaxation method dynamics of unimolecular reaction. [Lindemann - Hinshelwood and Rice Ramsperger-Kassel-Marcus (RRKM)] theories
CHE. 204	THEORY AND APPLICATIONS OF SPECTROSCOPY –II	Enable student to learn about the various type ofelectronic transitions, Beer - Lambert Law, Fieser-Woodward rule for the calculation of Lamda max ofdifferent conjugated dienes and carbonyl compounds. This also enable students to interlretate the UV-Visible spectra for the identification of molecules.

		Infrared spectroscopy is a vibrational spectroscopy which enables students to learn the vibrational behavior of the molecules and their interaction with EMR. This also enable students to interpretate the IR spectra for the identification of structure of the compounds.
		Enable students to learn the fragmentation pattern of molecules, factor affecting the fragmentation, rearrangement reaction, instrumentation and characteristics of mass spectra of different organic molecules.
		NMR and Carbon 13 NMR enable students to know the nuclear spin and its resonance after interaction with EMR. This also enable to learn the interpretation of MNR data for the structure elucidation of organic molecules
CHE. 301	RESONANCE SPECTROSCOPY & PHOTOCHEMISTRY	Enable to understand Principle and Application of "Electron Spin Resonance and nuclear Spin Quadrupole Resonance spectroscopy".
		Enable to understand basic principles of "Photoelectric effect "and spectra for atoms and molecules.
		Enable to understand basic principles of "Photoacoustic Spectroscopy"
		Enable to understand process of "Photochemical reactions".
		Enable to understand Photochemistry of Alkenes, carbonyl compounds and Aromatic compounds.
CHE. 302	CHEMISTRY OF BIO-MOLECULES	Enable students' bioenergetics, electron transfer reaction in biology and transport & storage of dioxygen.
		Enable to know the mechanism of metalloenzymes and enzyme models.
		Enable to learn the enzymes and Co-enzyme chemistry and biotechnological application of enzymes,
		Enable students to know the biopolymer interaction, thermodynamics of biopolymer solution, cell membrane and transport of ions.
CHE. 303	ANALYTICAL TECHNIQUES AND DATA ANALYSIS	Enable students to learn the statistical thermodynamics viz Maxwell Boltzmann distribution, Fermi-Dirac and Bose-Einstein statistics etc.
		Enable students to know the polymer chemistry i.e. polymerization and chemistry of polymerization
		Enable students to learn the chemistry of solid matter such as crystals and their properties.
		Also enable students to learn the electronic and band theory.
		Enable the students to learn the process of micellization and the adsorption phenomenon.
CHE. 304	STATISTICAL THERMODYNAMICS, SOLID STATE POLYMER AND SURFACE CHEMISTRY	Enable students to learn about the sampling, collection, preservation, sample preparation and sample preservation process before analysis. This also enables analytical data acquisition and statistical analysis of the data
		Enable students to learn the separation through extraction, instrumental separation technique viz chromatography TLC and HPLC.
		Enable students to know the thermal and automated methods.
		Enable students to learn the principle, instrumentation and application of the major electro analytical techniques viz pH potentiometry, conductometry, polarography, and voltametry.
CHE. 401		Enable to understand structure and synthesis of steroids and plant pigments

	NATURAL PRODUCTS & MEDICINAL CHEMISTRY	Enable to understand steps of drug design and its activity Enable to understand pharmacokinetics and pharmacodynamics.
		Enable to understand constitution and synthesis of antibiotics.
		Enable to understand synthesis and properties of antimalarial.
CHE. 402	CATALYSIS, MATERIAL & NUCLEAR CHEMISTRY	Enable to understand function and applications of acid, bases, electrophiles, nucleophiles and catalyst Enable to understand various nuclear models
		Enable to understand chemistry of materials.
		Enable to understand process of nuclear energy and process of nuclear fission Enable to understand types of fuels and its analysis.
		Enable to understand application of nuclear chemistry in various fields.
		Enable to understand techniques of detection of nuclear radiations
CHE. 403	INSTRUMENTAL METHOD OF ANALYSIS	Enable to understand techniques and application of advanced chromatography. "
		Enable to understand principles, instrumentation and application of x-ray and proton induced spectroscopy
		Enable to understand instrumentation and application of "atomic emission spectroscopy
		Enable to understand instrumentation and application of "atomic absorption spectroscopy
CHE. 404	ENVIRONMENTAL & APPLIED CHEMICAL ANALYSIS	Enable to understand classification, monitoring and analysis of air pollution
		Enable to understand quality standards, monitoring and analysis of soil and water pollution
		Enable to understand food adulterants and techniques of food analysis.
		Enable to understand action of drugs and analysis of drugs.
		Enable to understand types of fuels and analysis of fuels.

DEPARTMENT OF MATHEMATICS

PROGRAM: M.Sc. Mathematics

Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAM: M. Sc. Mathematics

PROGRAM CODE: MSMAT03

SCHEME OF PROGRAM AT A GLANCE

First Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
MATH/101	Advanced Abstract Algebra (I)	80	16	10	2	10	2	5	100
MATH/102	Real Analysis (I)	80	16	10	2	10	2	5	100
MATH/103	Topology	80	16	10	2	10	2	5	100
MATH/104	Complex Analysis (I)	80	16	10	2	10	2	5	100
MATH/105	Advanced Discrete Mathematics(I)	80	16	10	2	10	2	5	100

Second Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
MATH/201	Advanced Abstract Algebra (II)	80	16	10	2	10	2	5	100
MATH/202	Real Analysis (II)	80	16	10	2	10	2	5	100
MATH/203	General and Algebraic Topology	80	16	10	2	10	2	5	100
MATH/204	Complex Analysis (II)	80	16	10	2	10	2	5	100
MATH/205	Advanced Discrete Mathematics(II)	80	16	10	2	10	2	5	100

Third Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min	Max	Min		
MATH/301	Integration theory and Functional Analysis(I)	80	16	10	2	10	2	5	100
MATH/302	Partial Differential Equations and Mechanics (I)	80	16	10	2	10	2	5	100
Optional Paper									
MATH/303	Fundamentals of Computer Science	70	14	--	--	--	--	3	70
MATH/303	Fuzzy Sets and their applications(I)	80	16	10	2	10	2	5	100
MATH/304	Operations Research (I)	80	16	10	2	10	2	5	100
MATH/305	Programming in C (with ANSI features) (I)	70	14	--	--	--	--	3	70

Fourth Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min.	Max	Min.		
MATH/401	Functional Analysis (II)	80	16	10	2	10	2	5	100
MATH/402	Partial Differential Equations and Mechanics (II)	80	16	10	2	10	2	5	100
Optional Paper									
MATH/403	Operating System and Database Management System	70	14	--	--	--	--	3	70
MATH/403	Fuzzy Sets and their applications(II)	80	16	10	2	10	2	5	100
MATH/404	Operations Research (II)	80	16	10	2	10	2	5	100
MATH/405	Programming in C (with ANSI features) (II)	70	14	--	--	--	--	3	70

-----:: PROGRAM OUTCOMES :: -----

Programme Outcomes (PO's): Programme outcomes describe what students are expected to know or be able to do by the time of Post graduation. On completion of M.Sc. Mathematics programme student will be able to:

PO1	Various branches of Mathematics are so selected and designed for M.Sc Mathematics course aiming at mathematical reasoning, sophistication in thing and acquaintance with enough number of subjects including application oriented ones to suit the present needs of various allied branches in Engineering and Science as well as provision of opportunities to pursue research in higher mathematics.
PO2	Problem Solving Skills This programme also offers training in problem solving skills.
PO3	Analytical & Logical thinking The student will be able to develop logical reasoning techniques and Techniques for analyzing the situation.
PO4	Advanced Algebra The students shall appreciate the necessity of various Algebraic structures with binary operations such as Group, Ring, Non-commutative ring that lead to new ideas in algebra for their future research in advanced topics of algebra.
PO5	Analysis The student shall get an insight in the behavior of curves defined on a closed and bounded interval and some important properties of continuous, monotonic, and differentiable functions defined on a closed and bounded interval and also their metric space analogues.
PO6	Numerical Techniques The student will be able to learn some useful approximation and interpolation techniques in Mathematics.
PO7	Advanced Discrete Mathematics The student will learn concepts like finite state machine, Boolean algebra, lattice which develop more useful logic in the development of theories of electronic computers, networks, switching circuits that are applicable in Physics.
PO8	Learning Number theoretical concepts Student will learn some important concepts in Number theory that are useful in Cryptography related to the advanced area of research namely Network security.

PO9	Understanding Ability Student will develop ability for generation of mathematical model to a given real life situation as well as learning new areas of mathematics in future either for teaching or for research.
PO10	Getting Abilities Demonstrate the ability to conduct research independently and pursue higher studies towards Ph.D. degree in mathematics.
PO11	Evaluating capability The student shall acquire capability to evaluate hypothesis, methods and evidence within their proper contexts in any situation.
PO12	Application of knowledge The student shall able to apply the knowledge acquired in mathematics in Science, technology as well as research and its extensions.

---:: PROGRAM SPECIFIC OUTCOMES ::---

PSO1-	Understanding of the fundamental axioms in mathematics and capability of developing ideas based on them.
PSO2-	Inculcate mathematical reasoning.
PSO3-	To develop ones own learning capacity.
PSO4-	Prepare and motivate students for research studies in mathematics and related fields.
PSO5-	Develop abstract mathematical thinking
PSO6-	Assimilate complex mathematical ideas and arguments.

----: COURSE OUTCOMES :----

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
MATH/101	Advanced Abstract Algebra (I)	Understand the basic concepts of group series and their applications. Fundamental properties of finite field extensions, and classification of finite fields. How to test if a polynomial is irreducible Galois Fields
MATH/102	Real Analysis (I)	Basic definition of metric space, norm linear space and inner product space. Series and sequence of continuous functions. Equicontinuous families, Arzela-Ascoli Theorem and Stone-Weierstrass Theorem. Function of several variables and differedifferentiation in R_n .
MATH/103	Topology	Define topological spaces, product topology, metric topology, quotient space. Discuss the continuous functions, connected space, compact space, complete metric space, related theorems on Baire space. Describe closed sets and limit points, components and path components. Prove Urysohn's lemma, Urysohn's metrization theorem, Nagata-Smirnov metrization theorem, Ascoli's theorem. Understand the separation axiom, a space filling curve. Distinguishing spaces up to homeomorphisms.
MATH/104	Complex Analysis (I)	Differentiation of functions on C , deciding if a function on C is analytic. Development of functions into power series, classifying singularities. Integration of functions on C , applications to counting zeros and poles. Evaluation of indefinite real integrals using complex analysis. Constructing Mobius transformations mapping given circles to given circles.
MATH/105	Advanced Discrete Mathematics(I)	Define Semigroups, Monoids, Homomorphism and Isomorphism. Describe the TF statements, connectives, atomic and compound statements. Illustrate Tautology, Tautological implication, Truth Tables, Normal Forms, Principal Normal Forms. Discuss the theory of inference, quantifiers, predicate calculus. Interpret Lattices, Boolean Algebra, Karnaugh Map, Switching Circuits.
MATH/201	Advanced Abstract Algebra (II)	Module theory as linear algebra over general rings. Basic preparation various research areas in pure mathematics like algebraic geometry, Algebraic Number Theory, Topology etc. Theory of modules over PID and its application to Jordan and Rational canonical forms.
MATH/202	Real Analysis (II)	Idea about Partial differential equation and link to partial derivatives. Idea about the solution of the Dirichlet problem for certain subdomains of R_n . Learn some of the properties of Riemann integrable functions, and the applications of the fundamental theorems of integration.
MATH/203	General and Algebraic Topology	Concept of homotopy of maps and topological spaces. Concept of chain complexes of abelian groups. Concept of homology and cohomology groups of spaces. Exposure to the language of categories and functors
MATH/204	Complex Analysis (II)	Viewing analytic functions as conformal mappings. Power series, zeros, singularities. Prove the local mapping theorem, maximum modulus principle, Residue theorem. Evaluate the integral using Cauchy's integral formula and Residue theorem. Find the Taylor's and Laurent's series expansion of given function. Show Jensen's formula.
MATH/205	Advanced Discrete Mathematics(II)	More advance topics in combinatorics: recurrence relations, generating functions, Polya's theorem, graphs, trees, topics in matching such as Marriage theorem. Ramsey theory, planar graph. Partially ordered set: Dilworth's theorem and extremal set theory. Application to real life problems such as network theory, data structure, optimization etc.

MATH/301	Integration theory and Functional Analysis(I)	Working with a complete orthogonal set a.k.a. Schauder basis in a Hilbert space. Investigating the best approximation of a given vector by vectors in a given subspace. Computing the dual spaces of certain Banach spaces. Know the basic convergence theorems for the Lebesgue integral. Understand the relation between differentiation and Lebesgue integration.
MATH/302	Partial Differential Equations and Mechanics (I)	Apply a range of techniques to solve first & second order partial differential equations. Model physical phenomena using partial differential equations such as the heat and wave equations. Understand problems, methods and techniques of calculus of variations.
MATH/303	Fundamentals of Computer Science	To learn about what oops concept is, creating class, objects ,hiding information using abstraction How to reuse the code using inheritance,polymorphism and generic programming Understanding the way of organizing data and accessing it through different data structure technique. Explaining the different sorting technique of data and different data storage purpose using tree concept
MATH/304	Operations Research (I)	Identify and develop operational research models from the verbal description of the real system. Understand the mathematical tools that are needed to solve optimisation problems. Use mathematical software to solve the proposed models. Develop a report that describes the model and the solving technique, analyse the results and propose recommendations in language understandable to the decision-making processes in Management Engineering
MATH/305	Programming in C (with ANSI features) (I)	Defining the concept of programming language and its features To get the understanding of different data types and its usage according to needs of program. To learn about the flow of execution of a C program. How to use and handle array through which know about how to utilize memory location and access data location
MATH/401	Functional Analysis (II)	Understand the normed linear spaces, Banach space and Dual spaces Understand inner product spaces, orthogonally and Hilbert spaces. Distinguish between finite and infinite dimensional spaces. Apply linear operators in the formulation of differential and integral equations.
MATH/402	Partial Differential Equations and Mechanics (II)	To learn about Hamilton's Principle. The Hamiltonian mechanics provides the framework of most modern research in frontier areas particularly the relation between symmetry proportion and conservation laws.
MATH/403	Operating System and Database Management System	Understanding the basic details of data and the architecture of database, data modelling. Learn about Relational database and actual implementation of database through which we retrieve, manipulate data. To understand the details of operating system and its functioning
MATH/404	Operations Research (II)	Understand the concept of convexity and generalized convexity. To derive the necessary conditions (KT conditions) for constrained nonlinear optimization problems. To solve quadratic, goal and multi-objective programming problems. Use search technique to find the optimal solution of unconstrained optimization problems.
MATH/405	Programming in C (with ANSI features) (II)	To learn about the scope and visibility of variables. Know about Pointers so can access and manage data addresses of dynamically allocated block of memory Gain knowledge of reusing the same logic and code using functions. To learn about the mechanism of File handling and knowledge about structure and union so that memory can be used in very efficient way

DEPARTMENT OF PHYSICS

PROGRAM: M.Sc. Physics

Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAM: M. Sc. Physics

PROGRAM CODE: MSPHY04

SCHEME OF PROGRAM AT A GLANCE

First Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
PHY/101	Mathematical Methods - I	80	16	10	2	10	2	5	100
PHY/102	Classical Mechanics	80	16	10	2	10	2	5	100
PHY/103	Numerical Methods and Programming	80	16	10	2	10	2	5	100
PHY/104	Electronics - I	80	16	10	2	10	2	5	100

Second Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
PHY/201	Quantum Mechanics -I	80	16	10	2	10	2	5	100
PHY/202	Laser Physics and applications	80	16	10	2	10	2	5	100
PHY/203	Electrodynamics	80	16	10	2	10	2	5	100
PHY/204	Electronics - II	80	16	10	2	10	2	5	100

Third Semester:

Final Semester								
Course Code	Title	Marks						Total
		Theory		Test		Seminar		
		Max	Min	Max	Min	Max	Min	
PHY/301	Quantum Mechanics - II	80	16	10	2	10	2	100
PHY/302	Statistical Mechanics	80	16	10	2	10	2	100
PHY/303	Solid State Physics	80	16	10	2	10	2	100
PHY/304	Electronics - III	80	16	10	2	10	2	100

Fourth Semester:

Course Code	Title	Marks						Total
		Theory		Test		Seminar		
		Max	Min	Max	Min	Max	Min.	
PHY/401	Solid State Physics - II	80	16	10	2	10	2	100

PHY/402	Atomic and Molecular physics	80	16	10	2	10	2	100
PHY/403	Nuclear and Particle physics	80	16	10	2	10	2	100
PHY/404	Electronics - IV	80	16	10	2	10	2	100

-----:PROGRAM OUTCOMES::-----

Program Outcomes (PO's): Program outcomes describe what students are expected to know or be able to do by the time of Post graduation. On completion of M.Sc. Physics program student will be able to:

PO1	Apply the skill and knowledge in the design and development of electronic circuits to fulfill the needs of small scale electronic industry.
PO2	Demonstrate, solve and an understanding of major concepts in all disciplines of physics.
PO3	Solve the problem and also think methodically, independently and draw a logical conclusion.
PO4	Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of Physics experiments.
PO5	Create an awareness of the impact of Physics on the society, and development outside the scientific community.
PO6	To inculcate the scientific temperament in the students and outside the scientific community.
PO7	Use modern techniques, computer and Microprocessor
PO8	Become professionally trained in the area of electronics, material science, lasers and nonlinear circuits.
PO9	Gain the knowledge to appear and qualify the different competitive exams such as NET, SET, GATE, PSC, UPSC, SSC, BANK, RAILWAYS, SCHOOL TEACHER EXAM etc

---::PROGRAM SPECIFIC OUTCOMES::---

PSO1	Provided high quality education as well as a supportive learning environment for the students to reach their full academic potential.
PSO2	Instilled in students the spirit of hard work and research aptitude to pursue further studies in the nationally/internationally reputed institutions and laboratories as well as prepare them for a wider range of career opportunities in industry and commerce.
PSO3	Enabled the students to acquire real insight into physics and become self-confident, committed and adaptable graduates.
PSO4	Provided a firm foundation in every aspect of Physics and explained a broad spectrum of modern trends in Physics and developed analytical, experimental, computational and mathematical skills of students.
PSO5	Attains a common level understanding in mathematical methods employed in Physics
PSO6	Gets a secure foundation in fundamentals of classical, quantum and statistical mechanics
PSO7	Gets a clear understanding of principles and techniques of condensed matter physics, thermodynamics, electronics and electrodynamics
PSO8	Developed their experimental and data analysis skills through a wide range of lab experiments.
PSO9	Introduced to a broad spectrum of topics in Computational Physics and familiarised with additional relevant quantum mechanical techniques.
PSO10	The students are equipped with the knowledge of atomic, molecular, nuclear and particle physics.
PSO11	Developed their experimental skills through a series of experiments supplementing major themes of the lecture courses.
PSO12	Specialised in one of the frontier area of Physics via Choice Based learning of topics in one of elective bunches.
PSO13	The student is familiarized with one of the open elective course Optoelectronics, Software Engineering or Nano photonics.
PSO14	Undergone through the experience of independent work such as projects; seminars and assignments.
PSO15	Obtained effective communication skills.

COURSE OUTCOME

Course Code	Name of course	Course outcome
PHY. 101	Mathematical Physics	I. Understandig of Matrices, eigen values and eigen vectors
		II. Understanding of different theorems such as Cauchy - Riemann, Residueetc.
		III. Understandng of first and second order diffraatction equation, and Green's functions
		IV. Understanding of Legendre, Bessel, Hermite and Laguerre functions with their physical applications
PHY. 102	Physics- classical mechanics	I. Understnding of mechanics of particle, equation of motion of particleand D'Alembert principle.
		II. Deduction of different Principleand equation from Hamilton variational principle.
		III. Capble to understand the applications of Hamilton equation of motion.
		IV. Undersanding of Hamilton - Jacobi differential equation and Poisson Bracket.
PHY. 103	Physics- numerical methods and programming	I. Understanding of computational procedure and programming
		II. Understanding of different statements and different concept associated with with different functions.
		III. Understanding of determination of zeros of linear, non linear, algebric equation and transcendental equations
		IV. Understandng of numerical differention and Integarationand Newton cote's formula
PHY. 104	Physics-electronics	I. Understanding of working of Transistor, JFET, MOSFE Tand UJT
		II. Understanding of MISdiode, MOS diode and CCD
		III. Understanding of Microwave devices such as Tunnel diode, Gunn diode, Backward diode
		IV. Understanding of Modulation and Demodulation
PHY. 201	Physics- quantum mechanics	I- origin of Quantum theory and explanation of different phenomena on the basis of this theory
		II- some principles and theorems related with Quantum theory
		III- study of some physical quantity and problems on the basis of quantum mechanics
		IV- detailed study of hydrogen atom and its spectra on the basis of quantum mechanics
PHY. 202	Physics- laser physics and application	I- Basic idea of LASER and its parameters
		II- study of different LASER systems
		III- Advanced study of laser physics
		IV- study of laser Physics in different fields
PHY. 203	Physics-electrodynamics	I- capable to understand maxwell's equation and wave propagation in different media
		II- different phenomena related with wave propagation and boundary conditions
		III- understanding of Einstein theory of special relativity and it's covariant form
		IV- understanding of relativistic electrodynamics
PHY. 204	Physics- electronics	I- study of different type of transistors.
		II-understanding the working and characteristic of different phototransistors
		III- detail study of operational amplifier
		IV- parameters related with practicals of operational amplifier
PHY. 301	Physics- quantum mechanics	I- different approximation methods to determine the energy States of hydrogen and Helium atoms
		II- basic idea of scattering and its parameters
		III- study of different particles on the basis of time dependent perturbation theory
		IV- understanding of relativistic quantum mechanics and its formulation
PHY. 302	Physics- statistical mechanics	I - foundation of statistical mechanics , microstates, macrostates and theorems related with them
		II- basic idea of ensemble theory
		III- formulation of quantum statistics, theory of ideal gases and different statistics
		IV- ideal Bose and Fermi gases and their thermodynamics behaviour
	SOLID STATE PHYSICS-	I- theories and models for electron in solids and electronic properties

PHY. 303	I	II- Effects and theory related with Fermi surfaces of metals
		III- lattice dynamics of monoatomic, diatomic gases and thermal properties
		IV- understanding of electron-phonon interaction and superconductivity
PHY. 304	Physics- electronics	I - understanding of different number system and their conversion used in digital system
		II- understanding of different combinational logic circuits like adder, subtractor, coder, decoder multiplexer, demultiplexer
		III- understanding different sequential logic circuits like flip-flop, registers and counters
		IV - Idea of digital to analogue and analogue to digital converters, basic idea of integrated circuits
PHY. 401	Physics- solid state Physics	I. Understanding of Plasmons and Polaritons
		II. Understanding of Maxwell's equations for dielectric and ferroelectrics.
		III. General idea of dia, para magnetism and different theory for them.
		IV. Understanding of Ferromagnetism and anti-ferromagnetism
PHY. 402	Physics- atomic and Molecular physics	I. Understanding of Bohr theory of Hydrogen atom and Hydrogen like atom.
		II. Understanding of Zeeman effect, Paschen Back effect and Stark effect.
		III. Understanding of Rotational and Vibrational Spectra.
		IV. Understanding of Rotational-Vibrational spectra and electronic spectra.
PHY. 403	Physics- nuclear and particle physics	I. Understanding of Nucleon - nucleon interaction and Nuclear forces.
		II. Understanding of Beta and Gamma decay and selection rules
		III. Understanding of different nuclear model such as liquid drop, shell model etc.
		IV. Understanding of elementary particle and Quark model
PHY. 404	Physics- electronics	I. Understanding of memory, magnetic memory and networking in microprocessor.
		II. Understanding of Intel 8085 and time diagram.
		III. Understanding of instruction set of 8085 and addressing modes.
		IV. Understanding of Optical fiber and types of optical fiber.

DEPARTMENT OF ZOOLOGY

PROGRAM: M.Sc. Zoology

Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAM: M. Sc. Zoology

PROGRAM CODE: MSZOO05

SCHEME OF PROGRAM AT A GLANCE

First Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
ZOO. 101	BIOSYSTEMATICS, TAXONOMY & BIODIVERSITY	80	16	10	2	10	2	5	100
ZOO. 102	GENERAL PHYSIOLOGY & ENDOCRINOLOGY	80	16	10	2	10	2	5	100
ZOO. 103	STRUCTURE & FUNCTION OF INVERTEBRATES	80	16	10	2	10	2	5	100
ZOO. 104	MOLECULAR BIOLOGY & BIOTECHNOLOGY	80	16	10	2	10	2	5	100

Second Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
ZOO. 201	QUANTITATIVE BIOLOGY & COMPUTER APPLICATION	80	16	10	2	10	2	5	100
ZOO. 202	GAMETE BIOLOGY AND DEVELOPMENT BIOLOGY	80	16	10	2	10	2	5	100
ZOO. 203	POPULATION GENETICS & EVOLUTION	80	16	10	2	10	2	5	100
ZOO. 204	TOOLS & TECHNIQUES IN BIOLOGY	80	16	10	2	10	2	5	100

Third Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min	Max	Min		
ZOO. 301	COMPARATIVE ANATOMY OF VERTEBRATES	80	16	10	2	10	2	5	100
ZOO. 302	BIOLOGICAL CHEMISTRY	80	16	10	2	10	2	5	100
ZOO. 303	EN-VIRONMENTAL BIOLOGY & POPULATION ECOLOGY	80	16	10	2	10	2	5	100
ZOO. 304	ANIMAL BEHAVIOUR	80	16	10	2	10	2	5	100

Fourth Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min.	Max	Min.		
ZOO. 401	EN-VIRONMENTAL PHYSIOLOGY	80	16	10	2	10	2	5	100
ZOO. 402	IMMUNOLOGY & PARASITISM	80	16	10	2	10	2	5	100
ZOO. 403	ICHTHYOLOGY	80	16	10	2	10	2	5	100
ZOO. 404	AQUACULTURE & FISHERIES	80	16	10	2	10	2	5	100

-----:: PROGRAM OUTCOMES :: -----

PO1	A Master of Science degree provides scientific as well as professional entry-level competency to students.
PO2	This program offers advanced theoretical as well as practical knowledge to students in their chosen specialisation.
PO3	The MSc specialisation opted by students is usually the one studied by them during graduation and enhance their knowledge in selected subject.
PO4	This program is a prerequisite to enter into careers like lecturer in schools, Asst. Professor in colleges, and also open portal to appear in examinations like NET, SET, GATE etc.
PO5	It is also a mandatory program for further specialization like M.Phil. , Ph.D. and D.Sc.
PO6	The course is designed to provide the in-depth knowledge of the Specialized Subject.
PO7	It further enhances the vocabulary, skill sets, reasoning and IQ level.

---:: PROGRAM SPECIFIC OUTCOMES ---

PSO1-	Understand the biological diversity and grades of complexity of various animal forms through their systematic classification and comparative structural studies
PSO2-	Learn how earth was formed and how life started and evolved on the planet through process of organic evolution.
PSO3-	Understand the roles of plants, animals and microbes in the sustainability of the environment and their interaction among themselves and deterioration of the environment due to anthropogenic activities.
PSO4-	Understand the concepts and principles of biochemistry, immunology, physiology, ethology, endocrinology, developmental biology, cell biology, genetics, molecular biology and microbiology.
PSO5-	Develop technical skills in biotechnology, bioinformatics and biostatistics.
PSO6-	Delve into the wonderful world of insects, their success on the planet and their diversity .
PSO7-	Aquire knowledge on harmful and beneficial insects, their adaptations for life and control measures.
PSO8-	Perform laboratory procedures as per standard protocols in the areas of animal diversity, systematics, cell biology, genetics, biochemistry, molecular biology, microbiology, physiology, immunology, developmental biology, environmental biology, ethology, endocrinology, gamete biology, evolution and Entomology

----: COURSE OUTCOMES :----

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
ZOO101	Biosystematics, Taxonomy & Bio-diversity	The course will provides a comprehensive survey of the theory and methodology of systematics as they are applied today to all groups of organisms. The course is directed at those students interested in studies of evolutionary biology, biodiversity, conservation biology, and/or systematics. The paper Comprehend the basic concepts of animal taxonomy and zoological nomenclature. The purpose of the paper is to understand inner working of living-beings by comparing various systems within invertebrates. It explain the fundamentals of the topics: The following topics gets covered under this paper:
		1 Chemo, Cyto & Molecular Taxonomy, Speciation & Biological Classification
		2 International code of Zoological Nomenclature. Types of Hot spot and Treats. Conservation.
		3 Organization of coelome, Locomotion, Respiration, Nutrition and Digestion in invertebrate
		4 Excretory substance ,excretion and Nervous system of Invertebrate. Invertebrate Larvae and Minor phyla
ZOO102	Tools & Techniques in Biology	This paper builds capacity of the student to understand the use of various tools and techniques used in Research purposes in biology and covers following topics:
		1. Ultra Centifuge, Electrophorasis, Chromatography, colorimetry, Spectrophotometer & Flow Cytometry
		2. Microscopy Light & Electrone
		3. Chemical and Biological Assays in vivo & in vitro. Principal of Cytological & Cytochemical Technique.
		4. Nucleic Acid Hybridization & Freeze Technique
ZOO103	General Comperative & Molecular Endocrinology of Vertebrates	The course provides an insight into the structure and function of Endocrine systems in humans and their involvement in body metabolism towards maintenance of homeostasis. It provides in-depth knowledge on following topics:
		1 AIMS & Scope of Endocrinology, Discovery and Classification of Hormone. Comperative morphology of Endocrine Tissue.
		2 Biosynthesis, Release, Trasport, Termination, Metabolism, Receptor mechanism and Action mechanism of Hormone.
		3 Neuroendocrine system, Synthesis, Function and disorder of Neurohormone and Endocrine gland Hormone. Hormone of Heart and synthesis and function of Eicosanoid.
		4 Metabolic activities of Hormone, Role of in Fasting. Behaviour, Growth and Development.

ZOO104	Gamete Biology & Reproduction Physiology	The course is designed for the students to make them aware of the induced release of gametes, multiple ovulation, superovulation, in vitro oocyte maturation and cryopreservation of gametes and embryos. The course explains the sequence of events starting with a single cell to the production of a very complex organism. The course not only describes how embryos develop, but also highlights how the processes of development are brought about by changing individual cells into specialized cells with specific functions (the cellular level), and how genes within the genome of the organism drive and guide these changes (the molecular level)..The following topics gets covered under this paper:
		1. Sex Differentiation (Genetical, Gonadal, Phenotypic & Brain sex). Reproductive Cycle & Oogenesis.
		2 Male Reproductive system and Endocrine function in Male
		3. Female Reproductive system and Ovarian Hormones
		4. Fertilization, Parturition, Lactation and Hormonal Contraception. Placenta and its Endocrine function. Role of Hormones in Pregnancy..
ZOO201	Molecular Biology & Biotechnology	The course provides an insight into the life processes at the subcellular and molecular levels. Other important aspects include DNA and molecular genetics including gene cloning, sequencing and gene mapping. It envisages concepts, mechanisms, biological designs, functions and evolutionary significance of genetic modification or manipulation in special organisms and also discusses the recent advance in recombinant DNA technology. The following topics gets covered under the paper:
		1 Biomembrane, Mitochondria, Galgi Apparagus, Lysosome and Ribosome
		2 DNA Replication, Transcription, and Translatiom
		3 Genomic Organization & Molecular Mapping of Genome
		4 Transgenic animals. Knockout gene. & Genetic engineering.
ZOO202	Environmental Biology & Environmental Physiology	This course will take students on a journey through the physical workings of the Earth, the interactions between species and their environments. The course highlights on some of the important aspects viz. growth and survival of populations and communities in different habitats, energy flow in the ecosystems, interactions between the communities, exclusion of niches and consequences of changing environment on the biodiversity. This paper also enhance the knowladge of student in terms of adoption and stress physiology elucidating following feilds of Zoology:
		1. Scope of Ecology and Ecosystem & its types and function. Energy flow, Food chain, Food web, & Ecological succession. Carbon, Oxygen, Nitrogen & Water Cycle
		2 Population & Community Dynamics. Renewable & Non Renewable Resources, Forest, water and mineral resources. Conservation of Energy. National park and Wild Life Sencturies etc.
		3 Adaptation Mechanism. Adaptation in different Environment
		4 Stress Physiology Concept. Stress Physiology in Different Condition.

ZOO203	Immunology & Development Biology	Immunology part provides the students with the fundamental knowledge of the immune system and its protective roles against diseases. The course not only describes how embryos develop (embryology), but also highlights how the processes of development are brought about by changing individual cells into specialized cells with specific functions (the cellular level), and how genes within the genome of the organism drive and guide these changes (the molecular level). It also deals with a comparative account of development in some select groups of animals. The paper describes following topics in detail:
		1. Immune system at the level of Cells and Organs. Nature of Antigens , Antigenicity and Immunogenicity
		2. Immunoglobulin Structure & Function and detail study of IgG, IgM, IgE, IgD Immunoglobulin class. Antigen & Antigen - Antibody Interaction and knowledge about B - Cell & T- Cell
		3 Complement System, Major and Minor Histocompatibility, Complex Inheritance of HLA system
		4. Cleavage, Blastulation, Gastrulation, Fate map and Differentiation. Cell and Tissue interaction in development. Metamorphosis & Teratology
ZOO204	Quantitative Biology & Computer Application	This paper gives descriptive explanation of biology to a unique style of learning through graphic designs and quantitative parameters to realize how such research and innovations have made science interdisciplinary and applied. The paper elucidate the following topics:
		1. Introduction to Digital Computer, Hardware and Software, Input and Output devices.
		2. Computer application of Word, Excel and Power Point. Computer application in Biostatistics.
		3. Biological data. Representation of data. Central Tendency- Mean , Medium and Mode.
		4. Chi - square test. Student t - test. Analysis of Variation, Correlation & Probability
ZOO301	Comparative Anatomy of Vertebrate	The course offers insight into the physiology of chordates while giving an account of their anatomy. This course also explores vertebrate morphology with the aims of understanding major events in the history of vertebrate evolution and integrating the morphology of vertebrates with their ecology, behaviour and physiological adaptation in diverse habitats. Thermal relations encountered in endo- and ectothermic animals will be explained. Selective pressures that shape to different physiological phenotypes will also be addressed in the course. The paper elucidate following topics:
		1. Classification of Amphibia, Reptile, Bird and Mammals
		2. Study of Integument and Skeletal System
		3. Anatomy of Respiratory and Circulatory System. Study of Heart.
		4. Central, Peripheral & Autonomic Nervous System. Sense organ and Sensory Receptors. Study of Urinogenital System

ZOO302	Animal Behaviour	The course provides a wide range of theoretical and practical techniques used to study animal behaviour. It also Develop skills, concepts and experience to understand all aspects of animal behaviour. It Objectively understand and evaluate information about animal behaviour and ecology encountered in our daily lives. The course also helps to Understand and be able to objectively evaluate the role of behaviour in the protection and conservation of animals in the wild. It Consider and evaluate behaviour of all animals, including humans, in the complex ecological world, including the urban environment. The paper explains the following topics:
		1. Ethology, Pattern of Behaviour, Innate and Stereoscopic Behaviour. Biological Rhythms.
		2. Communication, Learning and Memory, Reasoning and Reproduction Behaviour
		3. Birds & Fish Migration and Echolocation in Bats. Neural and Hormonal control of Behaviour
		4. Social Behaviour. Hormonal effect on Behavioural Pattern
ZOO303	Population Genetics & Evolution	The paper examines the frequencies and distribution of alleles, genotypes and haplotypes in natural, artificial, and simulated populations in order to understand the forces that produce, maintain, and eliminate genetic variation across the globe and how it changes through time. The course provides information about the patterns and processes of evolution above the species level. Besides elaborating the process of speciation, it also categorically differentiates between the three methods of phylogenetic analysis viz., evolutionary systematics, phenetics and cladistics. This paper enhance the knowledge of following points in detail.
		1. Organic Evolution - Lamarckism, Darwinism and synthetic theory of evolution. Evidences of Evolution
		2. Genetic equilibrium, Natural selection and Phenotypic Variation.
		3. Isolation, Species & Speciation and gene evolution
		4. Micro & Macro Evolution. Evolution of Horse, Elephant, Camel & man
ZOO304	Molecular Cytogenetics	The course provides an insight into the life processes at the Chromosome & Gene levels. Its Get an in-depth understanding on the principles and mechanisms of inheritance. Understand the fine structure and molecular aspects of genetic material & Learn the importance of inheritance in Man. The paper describes following topics in detail:
		1. Eukaryote Chromosome, Giant Chromosome, Sex Chromosome, Linkage, crossing over & multiple alleles
		2. Cell fusion, Numerical and structural abnormalities of human chromosome syndrome Chromosome based heritable disease in human, Life cycle of some organism important in genetic studies
		3. Microbial Genetics. Bacteriophages. Molecular cytogenetics technique : FISH, GISH., DNA finger printing. Flow cytometry. Gene Regulation.
		4. DNA structure, type and its replication and fusion. RNA structure types and function. Genetic Code. Protein synthesis in prokaryote and eukaryote. Transcription & Translation.

ZOO401	Neuro Physiology & Human Physiology	The course enhance the Anatomy of Central and Peripheral Nervous System , Conduction Mechanism of Neuron, Role of Synapsis & Neurotrasmitters. Its also covers all Physiological system and how they maintain Living System inside the Cell. To understand about the importance and scope of Neuro Physiology & Human Physiology the paper describes following topics:
		1. Anatomy of Brain, Spinal Cord, Structure and function of Neurone, Neurogalia, Conduction mechnism and Nerve ending.
		2. Physiology of Synapse, Neurotrasmitters, Autonomic Nervous System, Reflex Action & Sensations.
		3. Physiology of Digestion, Circulation & Respiration
		4. Physiology of Contractile element, Excretion and Thermal regulation.
ZOO402	Biochemistry, Metabolic Regulation & Cell Function	The course provides an introduction to the structure of biomolecules with emphasis on the techniques used for structure determination and analysis. The course covers basic aspects of sample preparation for analysis and aims to enlighten the students how structural information can be utilized for better understanding of biological processes. To understand about the importance and scope of biochemistry the paper describes following topics:
		1. Chemistry,Function & Regulation of Water. Classification, Structure, Properties, Function and Metabolism of Carbohydrate & Lipid
		2. Classification, Structure, Properties, Function and Metabolism of Protein & Metabolism of Minerals. Carbohydrate and Utilisation of Krebs Cycle
		3. Anabolism, Catabolism, Biological Importance & Chemistry of Nuclic Acid. Synthesis and Function of Eicosanoid. Water & Fat Soluble Vitamin.
		4. Classification, Regulation and Mechanism of Enzyme Action and study of Co-enzyme.Biological Oxidation & Utilization of Krebs Cycle.
ZOO403 A	Ichtheology Group - A	The course improves the knowledge of anatomy, physiology, biochemistry and Classification of Fishes. This paper build knowledge of student in the following feilds:
		1. Skin, Skeleton, and Fins of Fishes. Locomotion and Feeding habbits
		2. Respiration & Accessory Respiratory organs of Fishes and information about Swim bladder and Weberian Ossicle. Heart and blood vascular system with the infomation about Excretion & Osmoregulation.
		3. Nervous System and Sense organ in fishes with Sound producing organ and Electric organ. Reproduction &. Development of Fishes.
		4. Adoptation in fishes - Coloration, Deep sea, and Hillstream fishes. This unit gave information about Larvivorous & Exotic fishes. Fish Byproduct and Aquarium maintenance
ZOO404 A	Aquaculture & Fishries Group - A	This course will give the students an understanding of the principles of aquaculture, including production systems, water quality, nutrition, spawning, larval culture and culture methodologies with special reference to fish, and prawn. The course will include an opportunity to conduct hands-on activities related to culture and husbandry of animals. The paper describes under following field:
		1. General charactors, Classification, Evolution & Phylogeny of Placoderm, Elasmobranchs, Holocephali, Dipnoi & Teleost Fishes

		2. Fish culture in Fresh Water, Maintenance of Fish Farm and Transport of Fish Seeds & Brooders
		3. Composite Fish Culture. Sewage Fed Fish Culture, Prawn-Fish and Rice field Fish Culture and Marine Fisheries
		4. Fish diseases- Viral, Bacterial and Helminth & Its treatments. Parasite of Fishes
ZOO403 B	Cell Biology (GROUP – B)	The course provides an insight into the life processes at the Cellular levels. Its Get an in-depth understanding on the principles and mechanisms of Cell Organel. Understand the fine structure of Cell & Learn the importance of Cell Biology. The paper describes following topics in detail:
		1. Molecular organization of eukaryotic chromosomes, Specialized chromosomes, DNA methylation and DNA Aase-1 Hypersensitivity, Specialized chromosomes II, Organisation and significance of heterochromatin, Organisation and significance of heterochromatin.
		2. Structural organization of Eukaryotic genes, Gene families, Transposable genetic elements of prokaryotes and eukaryotes, Organisation of eukaryotic transcriptional machinery promoter, DNA binding domains of transcription apparatus
		3. Eukaryotic transcription, Environmental modulation of gene activity (stress response) stress genes, Molecular basis of thalassemias muscular dystrophy cystic fibrosis, DNA rearrangement, Chlorine gene, 58 RNA genes
		4. Drosophila development, Drosophila development II origin of dorsal ventral polarity, Basic idea of homeotic selector genes and homeotic mutation, Basic idea of organization of homeoboxes, Evolutionary significance of homeoboxes.
ZOO404 B	Cellular Organization and Molecular Organization. (GROUP – B)	The course is designed for the students to make them aware of the Cellular Organization and Molecular Organization, but also highlights how the processes of development are brought about by changing individual cells into specialized cells with specific functions (the cellular level), and how genes within the genome of the organism drive and guide these changes (the molecular level). The following topics get covered under this paper:
		1. General organization and characterizes of viruses (Examples SV 40 and HIV). Yeast : Structure, reproduction and chromosome organization: Molecular organization of respiratory chain assemblies, ATP / ADP Translocase and F0F1 AT pase, Cell cycle:
		2. Peroxisomes, Nucleolus: Structure and Biogenesis and functions of lysosomes, Synthesis and targeting of mitochondrial proteins, Secretory pathways and translocation of secretory proteins across the EPR membrane
		3. Genome complexity: C- value. DNA sequences of different complexity. Cytoskeleton changes. Biochemical changes: Cell surface changes. and • Genetic basis of human
		4. Chromosomal abnormalities in human cancer. General idea of oncogenes and proto oncogenes. Transforming Agents. Tumor Suppressor genes. Receptor – Ligand interaction and signal

ZOO403 C	Entomology (GROUP – C)	The course enhance the knowledge of Insect, Its also covers all Physiological system and how they maintain Living System. To understand about the importance and scope of Insect diversity this paper play very imporent role. This paper also cover the role of Insecticide on Insect. The paper describes following topics : -
		1. Insect head types; Modification of mouth parts and feeding behaviour, Structure types and function of antennae, Hypothetical wing venation
		2. Structure of alimentary canal and Physiology of digestion, Malpighian tubules – anatomical organization , Transport mechanism, Structure of circulatory system, Cellular elements in the haemolymph
		3. Cell mediated and humoral immunity. Structure of compound eye and Physiology of Vision. Sound Production in insect. Structure and function of endocrine glands. Pheromones
		4. Embryonic membranous up to the formation of blastoderm. Metamorphosis. Insecticide effects on CNS. Important pest of Soybean Modern concept of pest management
ZOO404 C	Applied Entomology (GROUP – C)	The course is designed for the students to make them aware the Entomology because Insect provide us cloth, haney and lac. Insect as humen food for future. The knowledge of Insect also related with Forensic Science and Pest management. The following topics gets covered under this paper:
		1. Classification according to imms. Collection and preservation of insects.
		2. Insect pest-Management strategies and tools. Biological control, Genetic control, Chemical control. Pests of sugarcane, Cotton, Paddy, Stored food grains, citrus fruits, mango, Pulses and House hold insect pests
		3. Insects in relation to forensic science. Insects migration, population fluctuation and factors. Insects of medical and veterinary importance. Ecological factors affecting the population and development of Insects
		4. Mulberry and non mulberry sericulture. Apiculture. Lac culture. Insects as human food for future.
ZOO403 D	Wild Life Conservation (GROUP – D)	The course will provides a comprehensives of the tudy of Wild Life and their conservation. The course is directed at those students interested in studies of Wild Life biodiversity, conservation and systematics. The paper Comprehend the basic concepts of Values of wild life. The purpose of the paper is to understand Wild life Legislation, Eco tourism and Care of injured and diseased animal. It explain the fundamentals of the topics. The following topics gets covered under this paper:
		1. Wild life -Values of wild life - positive and negative. Our conservation ethics. Habitat analysis, Evaluation and management of wild life. Physical parameters. Biological Parameters. Preservation of general genetic diversity..
		2. Population estimation. Population density, Natality, Birth rate, Mortality, fertility schedules and sex ratio computation. National Organization. Indian board of wild life. Wild life Legislation.
		3. Eco tourism / wild life tourism in forests. Concept of climax persistence. Management of excess population & translocation. Bio- telemetry. Care of injured and diseased animal.

		4. Quarantine. Common diseases of wild animal. Protected areas National parks & sanctuaries, Community reserve. Tiger conservation - Tiger reserve in M.P, in India
ZOO404 D	Environment & Biodiversity Conservation (GROUP – D)	This course will take students on a journey through the physical workings of the Earth, the interactions between species and their environments. The course highlights on some of the important aspects viz. Biosphere, Sustainable development, Pollution and Solid waste management. This paper also enhance the knowledge of student in terms of Natural Resources & Water Shed management. This Paper elucidating following fields of Zoology:
		1. Scope and Environmental Science. Biosphere and Biogeochemical cycles. Environmental monitoring and impact assessment. Environmental and sustainable development. Water conservation, rain water harvesting, water shed management.
		2. Air pollution, Water pollution. Noise. radioactive and thermal pollution. Agriculture pollution. Basic concepts of Bioaccumulation. Solid waste management
		3. Global warming and disaster management. Afforestation. Environmental legislation.
		4. Natural Resources:- Forest, Land. Water , Food, Energy, Conventional and nonconventional energy resources. Value of biodiversity.
ZOO403 D	Biology of vertebrate immune system (GROUP – E)	Immunology part provides the students with the fundamental knowledge of the immune system and its protective roles against diseases. The paper This paper cover Tissues Immune system, Antigen T-Cell, B-Cell and Immunological Techniques and describes following topics in detail
		1. Tissues of Immune system- Primary and Secondary lymphoid organs, Antigen processing. Antigen presentation
		2. T-Cell lineage and receptors. T-cell activation. B-cell lineage and receptors. B-cell activation. Immunoglobulin structure, Biological and physical properties of immunoglobulin. Gene model for Immunoglobulin gene structure.
		3. Generation of antibody diversity. Immunization. Immediate type of hypersensitivity reaction of Anaphylactic type-I. Antibody dependent cytotoxic type II reaction. Complex mediated type III reaction
		4. Delayed type cell mediated hypersensitivity type IV reaction. Enzyme linked immunosorbent assay (ELISA) technique and its applications. Immunofluorescence technique. Immunodiffusion techniques. Monoclonal antibody technology
ZOO404 D	Molecular Endocrinology and Reproductive Technology (GROUP – E)	The course provides an insight into the structure and function of Endocrine systems in humans and their involvement in body metabolism towards maintenance of homeostasis. This paper also cover Reproductive Technology. It provides in-depth knowledge on following topics:
		1. Chemical nature of Hormones- Protein & polypeptides. Amino acid derivative. Steroids Phospholipids derivative. Purification and characterization of Hormones and Tissue hormones.

		2. Receptors: Membrane Receptor. Nuclear Receptor. Orphan Receptor. G-Protein and Nuclear Receptor
		3. Hormone – Transduction. G-Protein & Cyclic Nucleosides. Calcium calmoduline & phospholipids. Phosphorylation & other non-transcriptional effect of Hormones. Genetic control of formation of Hormone. Transcription, Translation and Post translation. Secretion of Hormone.
		4. Multiple ovulation and embryo transfer Technology. Study of estrous cycle. Surgical technique- Castration, Ovariectomy, Vasectomy, Tubectomy, Laprotomy.

DEPARTMENT OF COMMERCE

PROGRAM: M.Com.

Program Outcomes, Program Specific Outcomes and Course Outcomes

PROGRAM: M.Com.

PROGRAM CODE: MCOM01

SCHEME OF PROGRAM AT A GLANCE

First Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
COM. 101	MANAGERIAL ECONOMICS	80	16	10	2	10	2	5	100
COM. 102	ADVANCED ACCOUNTING	80	16	10	2	10	2	5	100
COM. 103	MANAGEMENT ACCOUNTING	80	16	10	2	10	2	5	100
COM. 104	STATISTICAL ANALYSIS	80	16	10	2	10	2	5	100
COM. 105	CORPORATE LEGAL FRAMEWORK	80	16	10	2	10	2	5	100

Second Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max.	Min.	Max.	Min.	Max.	Min.		
COM. 201	BUSINESS ECONOMICS	80	16	10	2	10	2	5	100
COM. 202	SPECIALIZED ACCOUNTING	80	16	10	2	10	2	5	100
COM. 203	ACCOUNTING FOR MANAGERIAL DECISION	80	16	10	2	10	2	5	100
COM. 204	ADVANCED STATISTICS	80	16	10	2	10	2	5	100
COM. 205	BUSINESS LAWS	80	16	10	2	10	2	5	100

Third Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min	Max	Min		
COM. 301	MANAGEMENT CONCEPT	80	16	10	2	10	2	5	100
COM. 302	ORGANISATIONAL BEHAVIOUR	80	16	10	2	10	2	5	100
COM. 303	ADVANCE COST ACCOUNTING	80	16	10	2	10	2	5	100
COM. 304	INCOME TAX LAW AND ACCOUNTING	80	16	10	2	10	2	5	100
COM. 305	TAX PLANNING AND MANAGEMENT	80	16	10	2	10	2	5	100

Fourth Semester:

Course Code	Title	Marks						Credit Point	Total
		Theory		Test		Seminar			
		Max	Min	Max	Min	Max	Min		
COM. 401	FINANCIAL MANAGEMENT	80	16	10	2	10	2	5	100
COM. 402	PERSONNEL MANAGEMENT	80	16	10	2	10	2	5	100
COM. 403	PRODUCTION MANAGEMENT	80	16	10	2	10	2	5	100
COM. 404	STRATEGIC MANAGEMENT	80	16	10	2	10	2	5	100
COM 405	VIVA	80	16	10	2	10	2	5	100

-----:: PROGRAM OUTCOMES :: -----

PO1	The Master of Commerce (M.Com.) semester wise programme offered by the College accomplishes the students to cash in on the opportunities and overcome the challenges in the field of commerce by providing systematic learning of managerial economics, advance accounting, income tax law & account, statistical analysis, corporate legal framework, business economics, specialized accounting, tax planning & management, advanced statistics, business law, management concept, organizational behaviour, advanced cost accounting, management accounting, accounting for managerial decisions, principles of marketing, advertising & sales management, marketing research, international marketing and research project work. The students after the completion of this programme become well prepared to take up various professional assignments, engagements and jobs in medium to large scale business establishments, industries, commercial set-ups and other public/private commercial sectors like banking, stock-exchange, insurance, NBFCs as accountants, investment bankers, business analysts, finance officers, business / financial advisors etc.
PO2	The students after the completion of this programme will be enabled to overcome the challenges and cash in the opportunities in the field of commerce
PO3	The students after the completion of this programme will become well prepared to take up various professional assignments, engagements and jobs in medium to large scale business establishments, industries, commercial set-ups and other public/private commercial sectors like banking, stockexchange, insurance, NBFCs as accountants, investment bankers, business analysts, finance officers, business / financial advisors etc.
PO4	The students will be able to think critically and take informed decisions after identifying the accuracy and validity of their assumptions and ideas from intellectual, organizational, and personal perspectives.
PO5	The students will be able to communicate effectively throughspeaking, reading, writing and listening clearly in one Indian language and thereby express themselves to the world by connecting with different ideas, books, people,media and technology.
PO6	The students will be able to interact socially and stimulate views, reconcile disagreements and help reach consensual conclusions.
PO7	The students will be able to demonstrate compassionate social concern and act with cognizant awareness of issues to contribute in civic life by volunteering impartially towards national development and thereby deliver effective citizenship
PO8	The students will be able to ethically recognize different value systems, understand the moral dimensions of individual decisions and accept responsibility for them.
PO9	The students will be able to recognize the issues of environmental perspectives and appreciate sustainable development for long term environmental sustainability.
PO10	The students will be able to engage themselves in life-long self-determining and learning in the comprehensive background of socio-technological changes for continued self-directed and life-long learning.

---:: PROGRAM SPECIFIC OUTCOMES ::---

PSO1-	Students will be able to understand the role of businessmen, entrepreneurs, managers, consultants which is required for critical decision making.
PSO2-	This course provides a learning environment to the students through which they can understand the global and national perspective of the economy.
PSO3-	The course will provide the learners the skills required for effective communication, decision making techniques which are useful for day to day routine business problems
PSO4-	The course provides a platform for the researchers to get new dimensions for the economy
PSO5-	Learners will be able to apply their theoretical knowledge in acquiring practical exposure.
PSO6-	Learners can also work as tax and audit assistant and other supporting financial services.
PSO7-	Students will be able to do higher education and advance research in the field of commerce and related discipline.
PSO8-	Students are able to understand and develop ethical, logical and professional behavior.
PSO9-	It helps the students to demonstrate adequate skills, knowledge and ability to nurture them for tackling the different situations of the life for their overall development

---:: COURSE OUTCOMES ::---

Course Code	Name of course/Paper	Course outcome (should include one point for each unit of the paper)
COM. 101	MANAGERIAL ECONOMICS	To Learn basic Concept Of Managerial Economics
		Knowledge about Demand Analysis.
		Knowledge about Theory Of Consumer Choice.
		Knowledge about Production Theory and Stages of Production.
COM. 102	Advanced Accounting	Knowledge about Issue, Forfeited and Redemption of Shares.
		Knowledge about Issue and Redemption of Debentures.
		Knowledge about Amalgamation and Reconstruction Of Companies.
		Knowledge about Accounting of Holding and Subsidiary Companies.
COM. 103	MANAGEMENT ACCOUNTING	Knowledge about basic Concepts Of Management Accounting
		Knowledge about Accounting Plan and Responsibility Centres.
		Knowledge about Budgeting and Marginal Costing.
		Knowledge about Standard costing and Variance Analysis.
COM. 104	STATISTICAL ANALYSIS	Knowledge about basic Rules and Functions of Statistics.
		Knowledge about Data Sources and Correlation.
		Knowledge about Probability Theory.
		Knowledge about Probability Distributions.
COM. 105	CORPORATE LEGAL FRAMEWORK	Knowledge about Companies Act and Important Documents.
		Knowledge about Share capital, Meetings and Winding Up of Companies.
		Knowledge about Negotiable Instruments.
		Knowledge about Endorsement and crossing of Cheque, SEBI Act.
COM. 201	BUSINESS ECONOMICS	Knowledge about Cost Theory and Estimation.
		Knowledge about Price Determination under Different Market Conditions.
		Knowledge about Pricing Practices.
		Knowledge about Business Cycles and Inflation.
COM. 202	SPECIALIZED ACCOUNTING	Knowledge about Accounts Of General Insurance Companies.
		Knowledge about Accounts Of Banking Companies.
		Knowledge about Accounts Of Public Utility Concerns.
		Knowledge about Royalty Accounts .
COM. 203	ACCOUNTING FOR MANAGERIAL DECISIONS	Knowledge about Break Even Analysis.
		Knowledge about Analyzing Financial Statements.
		Knowledge about Contemporary Issues in Management Accounting.
		Knowledge about Reporting to Management.
COM. 204	ADVANCED STATISTICS	Knowledge about Statistical Decision Theory.
		Knowledge about Statistical Estimations and Test Theory
		Knowledge about Association Of Attributes.
		Knowledge about Statistical Quality Control.
COM. 205	BUISNESS LAW	Knowledge about SEBI Act 1992.
		Knowledge about Competition Act 2002.
		Knowledge about Consumer Protection Act 1986

		Knowledge about WTO, TRIP, TRIMS and GATS.
COM. 301	Management Concept	Knowledge about Schools of Management.
		Knowledge about Managerial Functions.
		Knowledge Process and Theories of Motivation.
		Knowledge about Group Dynamics and Team Development.
COM. 302	Organizational Behaviour	Knowledge about basic Concept of Organizational Behaviour.
		Knowledge about Concept, Theories, Styles of Leadership and Organizational Conflict.
		Knowledge about Interpersonal and Organizational Communications..
		Knowledge about Organizational Development.
COM. 303	Advanced Cost Accounting	Knowledge about Cost Analysis, Material and Labour Control.
		Knowledge about Job ,Batch ,Contract and Operating Costing.
		Knowledge about Process Costing ,Estimate Costing and Uniform Costing.
		Knowledge about concept of various report udgetary Control.
COM. 304	Income Tax Law and Accounts	Knowledge about basic Law Relating to Income Tax.
		Knowledge about Calculation Of Taxable Income under the Head Salary and House Property.
		Knowledge about Calculation Of Taxable Income under the Head Business, Profession, Capital Gain and Other sources.
		Knowledge about Set off and carry Forward of losses , Appeals and Revisions.
COM. 305	Tax Planning and Management	Knowledge about Calculation Of Taxable Income and Tax of Firms and Companies.
		Knowledge about basic Concepts of Return of Income, Reopening of Assessment.
		Knowledge about concept Of Tax Planning.
		Knowledge about Preparation of Income Tax Returns.
COM. 401	Financial Management	Knowledge about Financial Management and Capital Budgeting.
		Knowledge about Cost of capital, Operating and Financial Leverage.
		Knowledge about Capital Structure Theories and Dividend Policies.
		Knowledge about Management of Working Capital and Management of Cash.
COM. 402	Personnel Management	Knowledge about basic Concept of Personnel Management.
		Knowledge about Personnel Policies.
		Knowledge about Man Power Planning.
		Knowledge about Performance Appraisal and Employees Fringe Benefits.
COM. 403	Production Management	Knowledge about Fundamentals of Production Management.
		Knowledge about Production Planning and Process Design.
		Knowledge about Work Measurement and Work Standards.
		Knowledge about Production Control.
COM. 404	Strategic Management	Knowledge about Concept of Strategy.
		Knowledge about Strategy Formulation and Choice Of Alternatives.
		Knowledge about Functional Strategies and Strategy Implementation.
		Knowledge about Strategy and Structure.
COM. 405	Project	Knowledge about Research Methodology.



FACULTY OF HOME SCIENCE

Government D. B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: M.Sc. (Home Science) HUMAN DEVELOPMENT

PROGRAMME CODE: MSCHD

SCHEME OF PROGRAMM :AT A GLANCE

POST GRADUATE PROGRAMME OUTCOMES

Home Science is a science-oriented, multidisciplinary subject which encompasses the multifarious activities that occur in families, households, and communities. Over years, the discipline has evolved and expanded to encompass activities and services of relevance, not only to the micro contexts of the family and community, but also to the macro context of the larger society. Resource Management is both multidisciplinary and interdisciplinary in its context encompassing the five major disciplines of Family Resource Management, Foods and Nutrition, Textiles and Clothing, Human Development, and Extension and Education. Each discipline has one or more specific areas of specialization.

These students would be strongly able to make up their bright career in different fields such as higher education for teaching & research/ Interior Designer /civil services/Front Office/ corporate and /or industry / job, entrepreneurship and other private sectors after completion of this program -

PO-1	Knowledge for Practical life: Apply the acquired knowledge in practical life so as to make our country self-reliant.
PO-2	Prepare for higher level research: Investigate the potential applications of learning in the discipline and become meticulous and systematic in scientific enquiry.
PO-3	Critical thinking: Analytical reasoning and Problem solving: Ability to employ critical thinking in identifying the problem, developing analytical skills and capabilities to resolve the problems efficiently related to all the five specific areas on a tailor-made basis for a client, customer, an individual, family and society either independently or with the support of concerned authorities.
PO-4	Research and Scientific reasoning: Skills in undertaking small researches by way of Term paper, Case Studies, Market Surveys, Field visits, Laboratory Experiments etc. on the related topics/ problems of the discipline and arrive at the results based on the scientific reasoning wherever applicable. Find out new methods and technologies to care for nature and life for sustainable development.
PO-5	Cooperation/ Team Work: Capability of working enthusiastically and united with the working teams in organizing events in the Department/ Faculty/ University/ Community, and accomplishing group work/ assignments / tasks by

	willing cooperation of all and well-coordinated group living through during educational visits.
PO-6	Reflective thinking: Ability to practice empathy and objectivity in dealing with the personal and community interactions and problems. Become Confident, responsible, autonomous and critically reflective lifelong learners
PO-7	Digital Literacy: Competency in accessing relevant and authentic information and data from electronic media with a motive to learn and synthesize it on the given topics in Home Science discipline for academic and extension work presentation and to prepare computer aided designs by using the needed software's.
PO-8	Self-directive learning: Potential to complete the assigned projects successfully either at Residential / Commercial level or Community level by managing the resources independently and wisely.
PO-9	Multicultural competence: Ability to learn about different cultures by way of practicing traditions, traditional cooking, ethnic designing and stitching, developing itineraries, and making traditional arts.
PO-10	Effective Citizenship: Responsible for learning, develop honesty in work and respect for self and others. Function effectively as an individual member or leader in diverse teams and in multidisciplinary settings towards the development of the society or nation

PROGRAMME SPECIFIC OUTCOMES

PSO1 - Develop various skills to manage micro and macro level organizations.

PSO2 - Study principles and techniques of management of human and material resources

PSO3 - Acquire global outlook and competency in human resource management

PSO4 - Commitment to social responsibility and ability to take up leadership roles

PSO5 - Adopt true professionalism in the work environment

PSO6 - Commitment to upkeep professional ethics

PSO7 – Attain better vision for research, communication, interpersonal relations.

PSO8 – Acquire ability to handle stressful conditions

PSO9 - Ability of decision making in normal and adverse condition

PSO10 – Acquire aesthetic sense and become more artistic and creative

PSO11 - Confidence to face the world and readiness to accept change at each level.

COURSE OUTCOMES

Course Code	Course Name	Course Out Comes
HD101	Research Methodology	Enable to understand the basics of research and its applicability
HD102	Theories of Human Development	To understand the need for theories in Human development
		To see theories in context
		To examine historical perspectives in the evolution of theory
		To understand the practical applications of theories
		To discuss various theories of Human development
HD103	Early Childhood Education	To gain knowledge and insight regarding principles of early childhood care and education
		To develop the skills and techniques to plan activities in ECCE centers of different types to conduct activities in early childhood care and education and to work effectively with parents and community
HD104	Current Trends and Issues in Human Development	To understand the role of individual,, the context and socialization in developing creativity
		To become familiar with psychometric measurement and alternate ways of assessing creativity\
HD201	Statistics and computer application	Understand the analysis of reasearch data of nutrition and its application
HD202	Culture & Psychology	To understand Adolescent pried changes and effects.
HD203	Parenting in Early Childhood	To Understand the parenting role and its effect on society
HD204	Management and Project Planning	To understand the management which is very important for life every aspect
HD301	Principles of Guidance and Counseling	To understand Importance of guidance & Counseling in everyday life
HD302	Advance Study in Human Development	To understand the Current study in the field of Human development
HD303	Childhood Psychopathology	To understand the childhood mental disorder than education & treat mate of disorder
HD304	Child and Human Rights	Know about child & Human Rights which is very Important for todays life
HD401	Methods of Studying Human Development	To know different methods of study in Human - Development and their implementation in studies.

HD402	Persons with Disabilities	To understand the different type of disabilities and their educational provision.
HD403	Study of Family in Society	To understand the different family structure & their merits & demerit.
HD404	Communication Technologies	To understand the different methods of communication which is very important for present scenario.



FACULTY OF HOME SCIENCE

Government D. B. Girls Postgraduate College, Raipur

Programme Outcomes and Course Outcomes

Programme: M.Sc. (Home Science) Resource Management

PROGRAMME CODE: MSCRM

SCHEME OF PROGRAMM :AT A GLANCE

POST GRADUATE PROGRAMME OUTCOMES

Home Science is a science-oriented, multidisciplinary subject which encompasses the multifarious activities that occur in families, households, and communities. Over years, the discipline has evolved and expanded to encompass activities and services of relevance, not only to the micro contexts of the family and community, but also to the macro context of the larger society. Resource Management is both multidisciplinary and interdisciplinary in its context encompassing the five major disciplines of Family Resource Management, Foods and Nutrition, Textiles and Clothing, Human Development, and Extension and Education. Each discipline has one or more specific areas of specialization.

These students would be strongly able to make up their bright career in different fields such as higher education for teaching & research/ Interior Designer /civil services/Front Office/ corporate and /or industry / job, entrepreneurship and other private sectors after completion of this program -

PO-1	Knowledge for Practical life: Apply the acquired knowledge in practical life so as to make our country self-reliant.
PO-2	Prepare for higher level research: Investigate the potential applications of learning in the discipline and become meticulous and systematic in scientific enquiry.
PO-3	Critical thinking: Analytical reasoning and Problem solving: Ability to employ critical thinking in identifying the problem, developing analytical skills and capabilities to resolve the problems efficiently related to all the five specific areas on a tailor-made basis for a client, customer, an individual, family and society either independently or with the support of concerned authorities.
PO-4	Research and Scientific reasoning: Skills in undertaking small researches by way of Term paper, Case Studies, Market Surveys, Field visits, Laboratory Experiments etc. on the related topics/ problems of the discipline and arrive at the results based on the scientific reasoning wherever applicable. Find out new methods and technologies to care for nature and life for sustainable development.
PO-5	Cooperation/ Team Work: Capability of working enthusiastically and united with the working teams in organizing events in the Department/ Faculty/ University/ Community, and accomplishing group work/ assignments / tasks by

	willing cooperation of all and well-coordinated group living through during educational visits.
PO-6	Reflective thinking: Ability to practice empathy and objectivity in dealing with the personal and community interactions and problems. Become Confident, responsible, autonomous and critically reflective lifelong learners
PO-7	Digital Literacy: Competency in accessing relevant and authentic information and data from electronic media with a motive to learn and synthesize it on the given topics in Home Science discipline for academic and extension work presentation and to prepare computer aided designs by using the needed software's.
PO-8	Self-directive learning: Potential to complete the assigned projects successfully either at Residential / Commercial level or Community level by managing the resources independently and wisely.
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COURSE OUTCOMES

Course Code	Course Name	Course Out Comes
RM101	Research Methodology	Enable to understand the basics of research and its applicability
		Explore the types, tools and methods of research
		Develop the ability to construct data gathering instruments appropriate to the research design
		Appreciate and understand importance of writing scientifically
		Understand the types and characteristics of research design
		Familiarize with the concepts of reliability and validity in research
RM102	Theory of Management	To understand the significance of management in the micro-macro level organization.
		student will be able to understand Importance of Management in India.
		students will learn about Resources in family
		students will learn about Management abilities
		students will learn about decision making
RM103	Consumer Economics	students will learn about Consumer and the Indian economic environment
		students will learn about the market
		students will learn about the market practices
		students will learn about the consumer protection
RM104	Land Scaping	students will be able to understand all about landscaping
		students will be able to understand all about Land profile
		students will be able to understand all about Land profile different varieties of plantation
		students will be able to understand all about Land profile different varieties of indoor and outdoor plants
RMP01	Practical	To be able to draw a design for garden
RM201	Statistics and computer application	Understand the analysis of research data of and its application
		How to calculate mean, mode median
		students will able to do presentation of data
		learn all about computer working, windows, ppt
RM202	Hospitality Administration	Types Meaning and definition of hospitality
		Learn about Scope & importance of house keeping
		Learn about Safety, security and sanitation

RM203	Public Finance	To Understand the National income
		Learn about Public finance
		Learn about Tax planning
		Learn about Markets and Marketing
RM204	Environment Management	To understand the management which is very important for life every aspect of environment
		Learn about eco system and enable students to understand the relevance of environment to resource management
		Learn about pollution develop Eco concerns in students,
		Learn about sources of pollution
Practical		Communication
RM301	Ergonomics	students will be able to understand about the role of ergonomic in work effectiveness and efficiency.
		students will be able to understand about the physiological aspect of ergonomics
		Learn about Anthropometry and Biomechanics
		learn about postures
		Learn about environment
RM302	Entrepreneurship	learn about the concept of entrepreneurship
		Learn about Institutional finance and Entrepreneurship
		Learn about Licensing & regulation of industries
		learn how to prepare project
RM303	Housing	Students will be able to understand History of Housing
		Learn about present situation of housing in india
		Learn about present situation of public and private housing
		False Ceilings – Different types and various materials
		Well informed of present housing conditions in India
RM304	Fuel Technology	students will be able to understand Sources of Energy and their classifications
		students will be able to understand Fossil fuels power
		students will be able to understand all about solar energy
		students will be able to understand energy from biomass
	practical	Ergonomics
RM401	Residential And Establishment	Learn about Water supply system
		Learn about Drainage System
		Learn about Electrical layout and wiring system
		Learn about Air Conditioning, Building Disaster Management
RM402	Consumer Education	To understand the Consumer Education
		decision-making, sound purchasing habits,
		Learn about Consumer aids
RM403	Space Design	To understand the Analysis of Housing Design
		Learn about the object of decoration.

		Learn about the Special Needs
		Learn about current trends in Interior Design
RM404	Management of Human Resources	Principles of human resources
		Learn about Motivation
		Learn about Methods and techniques for improving resources use
		Learn about training and techniques