2.6.1
2.6.2

Department of Chemistry

Program Outcomes

1. Students will disciplinary knowledge.

2. Students will be able to explain why chemistry is an integral activity for addressing social, economic and environmental problems.

3. Development of students personality and intellectual capacity will take place.

4. Students get communication skill.

5. Students will be able to design and carry out scientific experiments as well as accurately record and analyzed results of the experiments.

6. Students will be skilled in problem solving, critical thinking and analytical reasoning as applied to scientific problems.

Head
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B.B.Arts N.B.Comm.&B.P.Science
College Pusad Dist Yavatmal

DEPARTMENT OF CHEMISTRY

Course Outcome

Following outcomes are considered for the students of B. Sc.1 Semester I.

Students of the class became aware and got the knowledge of following important points.

1.Understand the ionic, covalent and metallic bonding.

2.Understand how the concept of electronegativity and its variation over the periodic table can be used to rationalize the nature of the bonding in substances.

3.Appreciate how chemical substances can be described in terms of structure and bond type.

4.Simple theories of chemical bonding are based on the idea of the electron-pair bond, and the extent to which a pair of valence electrons is shared between the atoms that are bonded together.

5. Formation of cations, anions, and ionic compounds.

6. Periodic table and various periodic properties.

7. Various thermodynamic laws, relationship between energy and mass.

8.Complete idea of entropy, a new thermodynamic function.

9. Carnot's cycle, Carnot's law and efficiency of heat engine.

10. The kinetic theory of gases, ideal gas and real gases.

11.Besides they will also learn degrees of freedom, molecular basis of heat capacity etc.

12.Students get idea about aromatic hydrocarbon and conditions of aromaticity(Huckel rule).13.Discuss fundamental aspects of main group chemistry including trends in oxidation States, periodic properties and complex formation tendency.

14.The resulting knowledge primary serves the success of students pursuing research in the field of chemical metallurgy.

15.Understand the trends in properties and reactivity of the s,p block elements and noble gases.

16. Differentiate the reactive intermediates and compare their stabilities.

17. Discuss the preparation and interpret the chemical properties of alkanes, alkenes, alkadienes, alkynes.

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Following outcomes are considered for the students of B. Sc.1 Semester II

Students of the class became aware and got the knowledge of following important points.

1.The polarization of bonds in terms of polarizability, polarization power is explained.

2. Fajan's rulesare given to explain the covalent character in ionic bond or ionic compounds.

3. The nature of the bonding in molecular compounds.

4. The importance of the octet rule.

5. From its Lewis symbol, predict the number of covalent bonds an element typically forms.

6. To draw Lewis formulae for the diatomic elements, molecular compounds, and polyatomic ions.

7. To have students understand that all liquids have an ionic make-up that decides whether they are an acid or a base. When chemicals react to each other, it usually means that one is working with an acid and a base, and they will react when they come in contact with each other.

8.Students get the concrete idea of-

- Covalent bond
- Hybridization phenomenon, various types of hybridization and geometries of different molecules and ions.

9. Types of chemical reactions on the basis of speed of reaction, factors responsible for rate of reaction etc.

10.Students Gate concept about polar and nonpolar molecule induced polarization measurement of dipole moment application of dipole moment paramagnetic diamagnetic ferromagnetic and antiferomagnetic substances.

11.The student will be able to understand general trends in the chemistry behind p block elements.

12.The student will be able to know the important compounds and important applications of compounds of boron and carbon.

13.The student will be able to describe the silent features of alkali and alkaline earth metal.

14. Discuss the preparation and interpret the chemical properties of alcohol, Alkyl Halide & Aryl Halide.

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Following outcomes are considered for the students of B. Sc.2 Semester III

Students of the class became aware and got the knowledge of following important points.

1. The basic quantum-mechanical approach to derive molecular orbitals from atomic orbitals.

2.Describe traits of bonding and anti-bonding molecular orbitals.

3.Students can calculate bond orders based on molecular electron configurations.

4.Students can write molecular electron configurations for first- and second-row diatomic molecules.

5.Related these electron configurations to the molecules' stabilities and magnetic properties.

6. Given a Lewis structure, distinguish between bonded pairs and non-bonded pairs of electrons

7. Use the Valence Shell Electron Pair Repulsion (VSEPR) model to predict the geometries of molecules and

8.Students got adequate knowledge of new thermodynamic properties as free energy, entropy.

9.Requirements for spontaneity of process.

10. Various conductance and their relationships.

11. How to measure the conductance.

12. Application of conductance to study progress of different titrations.

13. How to purify and extract the compound by solvent extraction.

14.Students Gate knowledge about stereochemistry different types of isomerism like optical geometrical and conformational unit 6 liquid state students get brief knowledge about liquid state and its related concepts like surface tension effect of temperature on surface tension viscosity relative viscosity etc

15. Recognise and assign names to aldehyde and ketone.

16. How to write the mechanism for nucleophilic addition and nucleophilic elimination reaction of aldehyde and ketone and be able to predict the products of such reaction.

17.Predict the product of addition reaction to alpha beta unsaturated carbonyl compound.

18. Distinguish the applications of quantitative analysis.

19. Perform a systematic and skillful volumetric and Gravimetric analysis.

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Following outcomes are considered for the students of B. Sc.2 Semester IV

Students of the class became aware and got the knowledge of following important points.

1. New type of organic compounds such as heterocyclic, organometallic involved in our day to day life.

2. How the compounds can be synthesized.

3. Information of crystals, how to determine crystal structure etc.

4. How to determine the molecular formula of newly synthesized compounds from colligative property.

5.Students get knowledge about aromatic nitro compounds amino compounds diazonium salt and amino acid and proteins

6.Distinguish between monosaccharides, disaccharides and polysaccharides.

7.Identify several major functions of carbohydrates.

8.Lanthanaids and actinaids: Electronic configurations, oxidation states, colour, magnetic properties, lanthanide contraction, separation of lanthanides (ion exchange method)

9. Classify the various metallurgical operations.

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Following outcomes are considered for the students of B. Sc.3 SemesterV

Students of the class became aware and got the knowledge of following important points.

1. The properties of the inner transition elements depending on the periodic properties in the Periodic table in addition to a comparative studies of the elements in their groups.

2. The spectroscopic and magnetic properties of the transition elements.

3. List several methods for concentration of ores and the methods and techniques for mineral processing is studied-

4. Describe the processes of oxidation and reduction and understand that oxidation of metals is a naturally occurring process.

5.Discuss the relationships between ligand binding in a metal complex and the degeneracy of the d orbitals and between the geometry of a metal complex and the splitting of the d orbitals.

. To understand the key features of coordination compounds, including:

- the variety of structures
- oxidation numbers and electronic configurations
- coordination numbers
- ligands, chelates
- bonding, stability of complexes

6. To be able to use Crystal Field Theory to understand the magnetic properties (and in simple terms the colour) of coordination compounds.

7.Describe the various deactivation processes of molecular excited states

8.Characterize the kinetics of deactivation processes and their role in the photochemical reactivity

9. Students get the idea of new type of compounds involved in our daily life.

10. Students get the Knowledge about the synthesis process.

11. Idea about spectra and its concerted concepts like selection rule ground term symbol orgel diagram spectrochemical series, other related concepts like EMI its characterization where parameter types of spectra degree of freedom energy level related to Electronic vibrational and

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Department of Chemistry
B.B.Arts N.B.Comm.&B.P.Science
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rotational transitions selection rule rigid rotor moment of inertia zero point energy for Raman effect.

12.Discuss the properties of coordination compound.

13.Categorise coordination compound.

14. Consider effective atomic number theory and Werner's complexes.

15. Explain the spectroscopic properties of coordination compound.

16. To become familiar with some applications of coordination compound.

17.To be able to describe the shapes and structure of coordination complexes with coordination numbers ranging from 4 to 6.

18. Know the various pharmaceutical drugs, their application and synthesis.

19. To understand the function of dyes, paints and pigments.

20. Have the knowledge of various Pesticides, insecticide, fungicide & herbicides.

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Following outcomes are considered for the students of B. Sc.III Semester VI

1. The students will be able to:

- Explain the basic principles of NMR.
- Show and explain function of the main units of an NMR instrument.
- Prepare a sample for an NMR experiment.
- Elucidate structure of an unknown compound from a set of NMR spectra.

2.Identify, describe and explain the function of the several components of a mass spectrometer (sample introduction, ionization source, mass analyzer and detector)

3.Students became aware of-

- Potential and pH
- Various electrodes
- Calculation of pH and potential to study the progress of Acid-base, precipitation titration.

4.Students get concept about electronic Spectroscopy its theory instrumentation types of electronic transition presentation of spectra and its related seats and its application in structure determination of organic compound

5.Organometallic compounds are very important in biological bodies like hemoglobin, chlorophyll vitamin B-12 and also they can be used as chemical reagents this topic discuss about the synthesis and properties of these organometallics.

6.Explain and rationalize the synthesis structure bonding properties and reactivity of metal carbonyls like $Ni(CO)_4$,$Fe(CO)_5$ and $Cr(CO)_6$.

7. Distinguish the spectrophotometry &colorimetry with complete instrumentation and determine the conc. of Cu (II) ions.

8. Explain the principles of paper chromatography techniques and to apply them.

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B.P.Science College,Digras

Bapuraoji Butle Arts,Narayanrao Bhat Commerce and Bapusaheb Patil Science College ,Digras Dist.Yavatmal

DEPARTMENT OF HOME ECONOMICS

Programme Outcomes

- **B.A.**
  1. Use for Skill development for Entrepreneurship
- **B.A. II**
  1. Useful for Health & Diet awareness
- **B.A. III**

  1.Useful for overall Human Development

Statement of Specific Outcomes (PSOs) \

By the end of this Programme, the students will be able to:

1. Introduce to the students the job opportunities in Home-Economics.
2. Develop the ability to improve the nutritional quality of food.
3. Develop marketing skills
4. Improve their knowledge about consumer rights and responsibilities.
5. Know about consumer perfection act.
6. Prepare various types of regional recipes and stitches.
7. Understand the biological and psychological development.
8. Develop creative ability among the students.

Course Outcomes Home Economics

B.A. I Semester – I

By completion of this course students will able –

1) To understand the field of Home Economics.

2) To create an awareness among the students about resources and their management in the family.

1) To understand the field of Home Economics.

2) To create an awareness among the students about resources and their management in the family.

3) To make aware about decision making and to enhance the decision making capability of the women

4) To provide knowledge and develop skills regarding principles and methods of interior decorations.

5) To develop skill regarding preparing the Bouquets and Flower Arrangements for decoration and enhance the chances of employment.

B.A. I Semester II

By completion of this course students will able –

1) To acquire basic knowledge of principles involved in planning of residential house.

2) To learn and apply various methods and techniques of the work simplification.

3) To develop employability skills and the 'skill of earning while learning'.

4) To bring awareness about waste management and water conservation for environmental protection.

5) To train the students from self employment of view.

B.A. II Semester – III

By completion of this course students will able –

1) To understand the basic concept of Nutrition.

2) To understand the knowledge of food, food functions and Nutritive value of foods.

3) To develop abilities to plan Diets for Various stages.

4) To develop the Entrepreneurial skills

B.A. II Semester – IV

By completion of this course students will able –

1) To understand the basic concept of related Nutrition.

2) To development abilities to plan diets for various diseases.

3) To understand the methods of food preparation and food preservations.

4) To encourage the students for self employments.

5) To aware the work of different agencies in the area of health.

B.A. III Semester – V

By completion of this course students will able –

1) To understand the concept of Human Development.

2) To know the factors affecting of human Development.

B.A. III Semester – VI

By completion of this course students will able –

1) To understand the role of heredity and environment in development.

2) To state the role of parent and teacher in child development.

3) To understand the problems of child.

4) To develop skill based activity.

Dr.Ku.Manjusha M Jagtap

Head, Department of Home Economoics

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B. B. ARTS, N.B. COMMERCE & B. P. SCIENCE COLLEGE

Course outcome of Mathematics

Semester I: Course outcome of Algebra and Trigonometry

Students will able to-

1. Solve algebraic equation and find the n^{th} root of complex number by using Demoivres Theorem.
2. Solve the different types of series.
3. Define quaternion, inverse of quaternion.
4. Solve cubic equation by cardons method and determine nature of roots by Descartes rule.
5. Solve simultaneous equation and find Eigen values and roots verify cayley Hamilton Theorem.

Semester I: Course outcomes of Calculus

Students will able to-

1. Prove the given real number is limit of function by usingepsilon delta definition of limit of function.
2. Decide the different type of Discontinuity.
3. Find the limit of function by L-Hospital's Rule.
4. Find n^{th} derivation of product of the functions by Lebnitz theorem.
5. Expand function by Tailor's Theorem.
6. Find partial derivative and verify Euler's theorem on homogenous function.
7. Find the reduction formulae of given integrals.

Semester II: Course outcome of Differential equation

Students will able to-

1. Solve first order ordinary differential equation by variable separation method and homogenous differential equation.
2. Solve first order linear differential equation, Bernoulli's D. E. and Differential equation solvable for p, x, y.
3. Solve the second order differential equation with constant coefficient and variable coefficient.
4. Solve D.E. of second order by different method such as change of dependent and independent variables, reducing to normal form and variation of parameter method.
5. Solve first order partial D. E. and second order partial D. E.
6. Solve non homogenous partial D.E. by Charpits Method.

Semester II: Course outcome of Vector analysis and geometry

Students will able to-

1. Find scalar and vector product of three or four vectors.
2. Find curvature and torsion of different types of curves.
3. Evaluate line integral and work done by Green's theorem and direct method.
4. Find equation of sphere and verify the condition of orthogonal sphere.
5. Find equation of cone, right circular cone, cylinder, right circular cylinder.

Semester III: Course outcome of Advance calculus

Students will able to-

1. Decide convergence and divergence of sequence.
2. Decide convergence and divergence of series by using comparison test, Cuschy integral test, ratio test, root test, Lebnitz rule and Abels test.
3. Expand the function of two variables by Tailor's theorem.
4. Find maxima and minima of function of two variables by second derivative test and Lagranges multiplier method.
5. Draw the region of double integral and evaluate it.

Semester III: Course outcome of Number theory

Students will able to-

1. Find greatest common divisor by division algorithm and Euclidean algorithm method.
2. Find least common multiple and greatest common divisor by prime factorization.
3. Define prime numbers, composite numbers and Fermat numbers.
4. Define congruence relation and solve linear congruence.
5. Find the Euler's function, Tow and Sigma functions and define arithmetic and Mobius function.

Semester IV: Course outcome of Modern Algebra

Students will able to-

1. Define group,subgroup, cyclic groups,permutation group and order of an element.
2. Define cosets, normal subgroup and quotient group, cyclic subgroups, and understand the structure and characteristics of these subgroups.
3. Define homomorphism, isomorphism, kernel and range of homomorphism.
4. Define ring, types of ring, integral domain and field.
5. Define ideal, quotient ideal and describe identity element of quotient ideal.

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Semester IV: Course outcome of Classical mechanics

Students will able to-

1. Define constrains and use D'Alemberts principle.
2. Find extremals of function.
3. State Hamilton Principle.
4. Find Eulerian angle.

Semester V: Course outcome of Mathematical analysis

Students will able to-

1. Decideintegrability of functions.
2. Test the convergence & divergence of improper integral.
3. Verify Cauchy – Reimann equation and find the analytic function by Milne Thomson method.
4. Find critical points and decide thetypes of transformation.

Semester V: Course outcome of Mathematical methods

Students will able to-

1. Find Fourier series, Fourier series of even and odd function.
2. Find Laplace transform of elementary function.
3. Solve ordinary D. E., partial D. E. and simultaneous D. E. by L. T.
4. Find Fourier transform, Finite - Transform, F-sine Transform and F-cosine Transform of the function.

Semester VI: Course outcome of Linear Algebra

Students will able to-

1. Define vector space, span, dependent and independent vectors, basis and dimension.
2. Find range space and null space of linear transformation and verify rank nullity theorem.
3. Find Eigen value and Eigen vectors of linear transformation.
4. Find orthogonal and orthonormal sets.

Semester VI: Course outcome of Graph Theory

Students will able to-

1. Describe the origin of Graph theory
2. Illustrate different types of graphs.
3. Determine degree, vertex and edges of graph.
4. Draw diagrams of different graphs.

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Programme Outcomes (ENGLISH)

1. To strengthen English Language of the students.
2. To enhance communication skills of students: speaking, reading, writing and listening.
3. To increase sound knowledge of English Grammar.
4. To make the students able to communicate clearly and effectively.
5. Enhancing the interest in English Language.
6. After the completion of Degree, students will grow into a responsible and dutiful citizen.
7. Attainment of programme outcomes, programme specific outcomes and course outcomes are evaluated by conducting following activities-

a) Diagnostic Test

b) Unit Tests

c) Assignments

d) Seminars

e) Group Discussion

f) Tutorials

g) Guest Lecture

h) Common Tests

i) Viva-voce

j) Special counselling is given to slow learners.

Dr. M. N. Bhagat

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B.B.ARTS N.B.COMMERCE AND B.P. SCIENCE COLLEGE
DIGRAS DIST.YAVATMAL

DEPARTMENT OF BOTANY

Programme Outcomes B. Sc.

Department of Botany	After successful completion of B.Sc three year degree program in Botany a student is able to,
Programme Outcomes	**PO-1**. Firstly students know about lower plants i.e cryptogams. Viruses, Bacteria, Fungi, Algae,Bryophyte,Pteridophyte **PO-2.** Morphology of Angiosperms, Gymnosperms,Utilization of plants,Medicinal plants. **PO-3.** Students describe morphological & reproductive characters of plant and also identify different plant families and study the Classification. **PO-4**. Cell biology gives knowledge about cell organelles & their functions. Genetics Provides study of inheritance, Mendel's laws, genetic interactions ,problems on Mendels' laws, multiple alleles. **PO-5.**They knows about plant physiology like plant water relations, photosynthesis , respiration,nitrogen metabolism, photoperiodism.Also studied plant ecology and environmental science.Plant adaptations like xerophytes,hydrophytes,various ecosystems, conservation of plants. **PO-6.** Molecular biology gives knowledge about chemical properties of nucleic acid and their role in living system. **PO-7**. Study various Botanical techniques and various equipments.
Programme Specific Outcomes	**PSO-1.** Students of Botany get fundamrntal knowledge through theory and practicals. **PSO-2.**Study the basis of plant life, reproduction ,their conservation in nature. **PSO-3**. Understand the laboratory exercises and handling of various equipments. **PSO-4**.Understand the role of living and fossil plants in our life. **PSO-5**.To create environmental awareness about cultivation techniques, conservation of rare species utilization of natural resourses.

	PSO-6. After completion of programme students know about advance techniques in plant sciences like tissue culture, agricultural biotechnology, PSO 7.After Completion of programme students able to start nursery, improved varieties of crops, cultivation and formulations of herbal drugs, management of plant diseases.

Course Outcomes B. Sc.Botany

Semester-I

Course Outcomes	After completion of all semesters students should be able to
1S-Diversity & Applications of Cryptogams and Microbes	CO-1. Study plant diversity including viruses,Cyanbacteria,Bacteria CO-2.General characters and diversity of algae. CO-3.Classification,General characters of various forms of Fungi like Albugo, Puccinia . Study of Lichens. CO-4.General characters,thallus organization and life cycle of various forms of Bryophyta. CO-5. General characters,thallus organization and life cycle of various forms of Pteridophyta. CO-6. Economic importance of algae, Applications of Mycorrhiza, Role of fungi in medicine ,food, agriculture. Study of plant pathology

Semester-II

Course Outcomes	After completion of all semesters students should be able to
2SGymnosperms,Morphology of Angiosperms and Utilization of Plants	CO-1. Study the process of fossilization and types of fossils. CO-2.General characters of Gymnosperms.Life cycle of Pinus and Gnetum. CO-3.Study the morphology of root ,stem, leaf. i nflorescence,flower.

	CO-4. Study the morphology of inflorescence and flower.Types of placentation.Pollination. **CO-5**.Understand morphology of fruits,Utilization of plants like food plants, fibre plants, oil yielding plants. **CO-6**.Study utilization of plants like spices,firewood, bamboos,timber yielding plants. Pharmacognasy and phytochemistry of medicinal plants

Semester-III

Course Outcomes	After completion of all semesters students should be able to
3S-Angiosperms Systematics,Antomy & Embryology	**CO-1**. Understand Origin & Evolution,Botanical Nomenclature,preparation of herbaria,Botanical Gardens,Concept of Biodiversity. **CO-2**.study systems of classification, Systematic study of dicotyledons(Polypetalae) . **CO-3**. Systematic study of dicotyledons(Gamopetalae) Monocotyledons family. . **CO-4**. Understand types of tissues Anatomy of root.. **CO-5.** Study anatomy of stem, anomalous structure in stem,antomy of leaf. **CO-6**. Understand Microsporogenesis,Megasporogenesis,Types of ovules.

Semester-IV

Course Outcomes	After completion of all semesters students should be able to
4S-Cell Biology,Genetics and Biochemistry	**CO-1**.Study cell concept, cell wall structure, structure and functions of nucleus,Plasma membrane,Chloroplasts. **CO-2**. Understand Structure and functions of ER, Golgi complex,Vacuole,Ribosome, Mitochondrion, Mitosis and Meiosis .

	CO-3. Structure of Chromosomes, Chromosomal aberrations,Numerical aberrations. **CO-4**. Study Mendels laws, Intraction of Genes,Problems based on Mendelism. **CO-5**. Study Concept and types of Linkage,Crossing over, Gene mutation. **CO-6**. Understand Nomenclature and characteristics of enzymes,theories for mechanism of action of enzymes..

Semester-V

Course Outcomes	After completion of all semesters students should be able to
5S-Plant Physiology and Ecology	**CO-1**. Study Plant water relations-Diffusion, Osmosis, Imbibition,Plasmolysis,Absorption of water, Ascent of Sap, Transpiration. **CO-2**. Understand plant metabolism like Photosynthesis, Respiration . **CO-3**. Study Nitrogen metabolism, Growth Senescence and Abcission. **CO-4**. Study plant responses like Photoperiodism,Vernalization,Plant movements, Stress physiology . **CO-5**. Study Concept of environment, Scope of ecology,Ecological factors, Atmosphere and composition,Edaphic factor, Ecological adaptations. **CO-6**. Understand Population ecology , Ecological Succession, Ecosystems.

Semester-IV

Course Outcomes	After completion of all semesters students should be able to
6S-Molecular Biology	**CO-1**.Study Chemical composition, Double helical model of DNA, DNA

and Biotechnology	Replication, DNA packaging . **CO-2**. Understand Fine structure of gene,Gene expression, Transcription in eukaryotes . **CO-3**. Study Regulation of gene in Prokaryotes and Eukaryotes,Protein folding mechanism, Protein sorting. **CO-4**. Study tools and techniques of r-DNA technology, Restriction enzymes, Cloning vectors, Gene transfer technique, Gene amplification.. **CO-5**. Study basic aspects of plant tissue culture, Laboratory requirements for tissue culture laboratory, Tissue culture techniques . **CO-6**. Understand Applications of Biotechnology in agriculture, industry, health care and conservation .

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B.B. ARTS, N.B. COMMERCE AND B.P. SCIENCE COLLEGE, DIGRAS

DEPARTMENT OF ZOOLOGY

Programme Outcomes, Programs Specific Outcome and Course Outcome.

Department of Zoology	After successful completion of B.Sc three year degree program in Zoology a student is able to,
Programme Outcomes	**PO-1**. Understand history of Phylum of Non-Chordata & Chordata **PO-2.** Demonstration & understand the major concepts in Zoology. **PO-3.** To study & understand the classification of whole phyla of Non-Chordates & Chordates with the help of specimens/models/pictures. **PO-4**. Create awareness in students about biodiversity of Non-Chordates & Chordates **PO-5**.To create awareness of the impact of Zoology on the environment, society and development outside the scientific community **PO-6.** To inculcate the scientific temperament in the students and outside the scientific community.
Programme Specific Outcomes	**PSO-1.** Gain the knowledge of Zoology through theory & practical. **PSO-2.**Use modern zoological tools, models, charts, specimens &equipments. **PSO-3**. Understand the good laboratory practices and safety. **PSO-4**.Make aware & handle the sophisticated instruments/equipments. **PSO-5**.To develops research oriented skills.

Course Outcomes B. Sc. Zoology

Semester - I

Course Outcomes	After completion of all semesters students should be able to
1S-Life and Diversity of Non-Chordata	**CO-1**. Understand the evolution, history of phylum. **CO-2** Understand about the non-chordate animals. **CO-3**. To study the external as well as internal character of non- Chordate. **CO-4**.to study the distinguishing character of non-chordate. **CO-5**.understand economic importance of some non-chordate animals. **CO-6**. Understand various internal systems. **CO-7**. Understand various diseases caused by protozoan parasite.

Semester-II

Course Outcomes	After completion of all semesters students should be able to
2S-cell and developmental biology	**CO-1**. Understand the terms of physiology. **CO-2**. To study the muscle physiology, nerve physiology and reproductive physiology. **CO-3**. To study the histology of various organs and endocrine glands. **CO-4**. Understand the economic importance of insects. **CO-5**. Understand the details of aquaculture. **CO-6**. To understand significance of beneficial and harmful insects.

Semester-III

Course Outcomes	Life and diversity of chordata and concept of evolution.
3S- Life and diversity of chordata and concept of evolution	**CO-1**.understand history of phylum chordata. **CO-2**.To study the external as well as internal characters of chordates. **CO-3**.To study the distinguishing characters of chordates. **CO-4**. Understand the evolution. **CO-5.** Understand diversity of chordate animals among various graph. **CO-6**. To study the adaptive radiation.

Semester-IV

Course Outcomes	After completion of all semesters students should be able to
4S-Advance genetics and animal ecology	**CO-1**.To study Mendel's law's of hereditary and interaction o gene. **CO-2**. Understand the terms linkage, crossing over, multiple alleles and sex determination disorders. **CO-3**. Aware the students with genetic disorders. **CO-4**. To study different concepts in ecology. **CO-5**. To study different types of ecosystem.

Semester-V

Course Outcomes	After completion of all semesters students should be able to
5S –Animal	**CO-1**. Understand the term of physiology.

physiology and economic zoology	**CO-2**.To study the muscle physiology, nerve physiology and reproductive physiology. **CO-3**.To study the histology of various organs and endocrine glands. **CO-4**. Understand the economic importance of insects. **CO-5**.Understand the details of aquaculture. **CO-6**.Understand the significance of beneficial and harmful insects.

Semester-VI

Course Outcomes	After completion of all semesters students should be able to
6S-Molecular Biology and Biotechnology	**CO-1**.Understand the tools and techniques used in molecular biology and biotechnology. **CO-2**. To study types of mutation. **CO-3**. To study genetic material, protein synthesis, and concepts of gene **CO-4**. Understand the terms DNA fingerprinting, ELISA technique and RIYA technique **CO-5**To study concepts in immunology.

Labhsetwar.
(Dr. N.S. Labhsetwar)
Head
Department of Zoology
B.B.Arts.N.B.Commerce & B.P.
Science College,Digras Dist.Yavatmal

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Department of Political Science

Program Outcomes: B. A. Political Science

Dr. A. D. Jadhao

(Assistant Professor)

Head;

Department of Political Science

B.B.ARTS, N.B.COMMERCE AND B.P.SCIENCE COLLEGE, DIGRAS

Department of Political Science

Program Outcomes: B. A. Political Science

After completion of B. A. in Political Science student should be able to-

1. Students enable to discuss the major theories and concepts of Political Science and its other branches, they also deliver thoughtful and well articulated presentations of research findings.
2. Students enable to analyze socio-economical, political and policy problems and formulate policy options.
3. Students enable to develop academic proficiency in sub-fields of Indian Constitutional Provisions and local Self Government, Selected Constitutions, International Relations, Modern Concepts of Political Science, Concepts of Western and Indian Political Thinkers, International and Regional Organizations, Political Theory, Political Ideology, Comparative Government and Politics.
4. Students enable to develop and be able to demonstrate skills in conducting as well as presenting research in political science and help to government and citizens.

Program Specific Outcomes: B. A. in Political Science

AfterCompletion of B. A. in Political Science Students are able to:

1. Can admit to M. A. in Political Science, L.L.B., M.S.W., M.B.A., B.Ed., B.P.Ed.
2. Can Prepare for Civil Services.
3. Serve as Political Analyzer and member of think tank of Political Leaders.
4. Serve as Political Party member, Political adviser, and well Citizen of India.
5. Serve as Politician
6. Work as a teacher in schools, high schools and colleges.
7. Work in elections and political as well as administrative system.
8. Work in NGOs.
9. Serve in other corporate sectors.

B. A. Part I

Indian Constitutional Provisions and Local Self Government

(Semester I)

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1. Students enable to know the salient features of Indian Constitution.
2. Students enable to appreciate the Fundamental Rights and Duties and the Directive Principles of the State Policy.
3. Students enable to understand the importance of the Preamble of Indian Constitution.
4. Students enable to know the Method to acquire Indian Citizenship.
5. Students enable to understand the Powers Functions and role of the President and Vice President of India.
6. Students enable to know the Appointment, Role and Functions of the Prime Minister.
7. Students enable to understand the Parliamentary System and Structure, Powers and Functions of Loksabha and Rajyasabha.
8. Students enable to know the Powers and Functions of Speaker of Loksabha.
9. Students enable to understand the Structure of Indian Judiciary, Types of Court, Characteristics of Indian Judiciary.
10. Students enable to know the Structure, Powers, Functions and Jurisdictions of Supreme Court and High Court.

B. A. Part I

Indian Constitutional Provisions and Local Self Government

(Semester II)

1. Students enable to understand the Structure, Functions and Powers of Election Commission of India.
2. Students enable to understand the Electoral Reforms and Recognition of Political Parties in India.
3. Students enable to know the Eligibility of Voters in LokSabha, VidhanSabha (Legislative Assembly) and VidhanParishad (Legislative Council)
4. Students enable to understand the State Executive: Appointment, Role, Powers and Functions of Governor, Chief Minister and Council Of Ministers.
5. Students enable to understand to State Legislature of Maharashtra.
6. Students enable to understand the Structure, Powers and Functions of Legislative Assembly (VidhanSabha) and Legislative Council (VidhanParishad).
7. Students enable to understand Local Self Government of Maharashtra.
8. Students enable to understand types of Local Self Government (Rural and Urban).
9. Students enable to understand the Structure, Powers and Functions of Municipal Corporation, Gram Sabha and Gram Panchayat. And also know the Women's Participation in Panchayat Raj of Maharashtra.
10. Students enable to understand Nagpur Pact for Sanyukta Maharashtra and its Recommendations.
11. Students enable to understand the Right to Information and its Importance.

B. A. Part II

Selected Constitutions and International Relations

(U.K., U.S.A. & China)

(Semester I)

1. Students enable to understand the Salient Features of the Constitution of U. K.
2. Students enable to know the Historical Background of Crown and also understand the Appointment, Powers, Functions and Role of Prime Minister and Cabinet in U. K.
3. Students enable to understand the Parliamentary System of U. K.
4. Students enable to know the Composition, Powers and Functions of House of Lords and House of Commons, with Reference to Constitutional Reforms Act-2005.
5. Students enable to know the Role of Opposition and Shadow Cabinet of U.K.
6. Students enable to understand the Salient Features of the Constitution of U. S. A.
7. Students enable to know the Election Process, Powers and Functions of the President and Vice President and also understand the Structure and Functions of the Cabinetof U.S.A
8. Students enable to know the Legislature of U. S.A. (Congress): Composition, Powers and Functions of Senate and House of Representative.
9. Students enable to understand the Composition, Powers and Functions of the Supreme Court of U. S. A.
10. Students enable to know the South Asian Association for Regional Cooperation (SAARC), Its Objectives, Structure and Functions.

B. A. Part II

Selected Constitutions and International Relations

(U.K., U.S.A. & China)

(Semester II)

1. Students enable to understand the Salient Features of the Constitution of China (1982)
2. Students enable to know the Legislature of China: Composition, Powers and Functions of National People Congress and also know the Composition, Powers and Functions of Standing Committee.
3. Students enable to know the Appointment, Powers and Functions of the President and Prime Minister of China.
4. Students enable to know the Role of the Communist Party in China.
5. Students enable to understand the United Nation Organization (UNO): its Charter, Aims and Basic Principles.
6. Students enable to understand theComposition and Functions of General Assembly and Security Council.
7. Students enable to understand the Appointment, Powers and Functions of Secretary General of U. N. O.
8. Students enable to understand the Composition and Powers of International Court of Justice.
9. Students enable to know the Indo – China Relations.
10. Students enable to understand theTibet Dispute, Role of China about India in UNO and Impact of Chinese Goods and Market on Indian Economy.

B. A. Part Final

Semester – V

Modern Concepts and Policy in Politics

1. Students enable to understand the Meaning, Factors and Role of Leadership.
2. Students enable to know the Meaning and Nature of Indian Reservation Policy.
3. Students enable to understand theReservation in Indian Parliament and Reservation and Politics in India.
4. Students enable to know theMeaning and Nature, Factors of Nationalism and also understand the Present Status of Indian Nationalism.
5. Students enable to understand theMeaning of Communalism, Role of Communalism and Present Status of Communalism in India.
6. Students enable to understand theMeaning and definition, Kinds of Terrorism.
7. Students enable to understand theActs for Prevention of Terrorism in India.

B. A. Part Final

Semester – VI

Concepts of Western and Indian Thinkers

1. Students enable to understand the Concept of State: i) Aristotle – Classification of State, ii)M. K. Gandhi –Concept of Ramrajya.
2. Students enable to understand the Concept of Walter Bagehot's and Abraham Lincoln's concept of Democracy.
3. Students enable to understand the Concept of Parliamentary Democracy of Dr. B. R. Ambedkar.
4. Students enable to understand theConcept of Nationalism of Niccolo Machiavelli, Swami Vivekananda and V. D. Sawarkar.
5. Students enable to understand the Concept of Socialism of Karl Marks, Ram ManoharLohiya and Pandit Jawaharlal Nehru.
6. Students enable to understand theConcept of Behaviouralismof DevidEston and also Know the concept of Post-Behaviouralism of Gabriel Almond.
7. Students enable to understand the Concept of Sovereignty of John Austin.

Officiating Principal
B.B.Arts, N.B.Comm[illegible]
B.P.Science College,[illegible]