

# Shri Sangameshwar Education Society's Sangameshwar College, Solapur [Autonomous] (Affiliated to Punyshlok Ahilyadevi Holkar Solapur University, Solapur) Kannada Linguistic Minority Institute

# NAAC Accredited with 'A' Grade (III Cycle CGPA 3.39)

UG Science Programme: B.Sc.-I to be implemented from A.Y. 2020-2021

# **Course Outcomes**

# **Department of Chemistry**

Chemistry (Semester-I & II)

<b>Course Outcomes B. Sc. I Chemistry</b>		
Semester- I		
Course	Outcomes	
	After completion of this course students will be able to-	
DSC-A Theory-I	CO-1. Draw graphs by using variables.	
Physical Chemistry	CO-1. Apply rules of differentiation and integration to various	
	Chemical equations.	
	CO-2. Prepare standard solutions of different concentrations.	
	CO-3. Define and differentiate between order and molecularity of the	
	reaction.	
	CO-4. Derive an equation for rate constant of first and second order	
	reaction.	
	CO-5. Define the fundamental concepts of thermodynamics.	
	CO-6. Calculate the efficiency of heat engine from given data.	
	CO-7. Distinguish between ideal and non-ideal gases.	
	CO-8. Formulate the relation between Vander waal's constant and critical	
	constants.	

	CO-9. Differentiate between concentration terms normality & molarity of	
	the solution.	
	CO-10. Solve numerical problems related on mole concept.	
DSC-A Theory-II	CO-1. Define and identify various types of chemical bonds.	
Inorganic Chamistan	CO-2. Predict shapes of molecules based on number of electron pairs with	
Chemistry	respect to VSEPRT.	
	CO-3. Draw the various molecular orbitals based on MOT	
	CO-4. Identify and draw the geometry of molecule from hybridization	
	CO-5. Calculate the bond order and stability of simple molecules like $O_2$ ,	
	N <sub>2</sub> , CO & No.	
	CO-6. Apply the Hund's rule of maximum multiplicity.	
	Course Outcomes B. Sc. I Chemistry	
	Semester-II	
DSC-B Theory-1	CO-1. Explain the structure of reaction intermediates and their role in	
Organic Chemistry	reaction mechanism.	
	CO-2. Differentiate between optical, geometrical and conformational	
	isomers.	
	CO-3. Draw the real 3D structure of molecules	
	CO-4. Define aromaticity and apply the Huckel's rule to explain	
	aromaticity.	
	CO-5. Comment on Aromatic/Nonaromatic character of compounds.	
	CO-6. Able to predict the mechanism of aromatic electrophilic substitution	
	reactions.	
	CO-7. Describe the methods of synthesis of alkanes, alkenes & alkynes	
	and their chemical properties.	
DSC-B Theory-1I	CO-1 Explain and define the physical properties of liquids such as surface	
Analytical and Industrial Inorganic	tension, viscosity and dipole moment.	
Chemistry	CO-2. Explain principle, reactions, procedure and calculations needed for	
	qualitative and quantitative analysis of organic compounds.	

	CO-3. Identify the oxidation-reduction reactions and also able to balance	
	reactions.	
	CO-4. Describe the types of catalysis and mechanism	
	CO-5. Describe the factors affecting water and air pollution and health	
	hazardous.	
	CO-6.Discuss the applications of petrochemical compounds.	
DSC-A&B Physical	CO-1. Determine the viscosity of different liquids.	
chemistry practical's	CO-2. Hands on use of eudiometer to determine equivalent weight of	
	metal.	
	CO-3. Application of reaction rates to study hydrolysis of methyl acetate.	
	CO-4. Examine the study of second order reaction.	
	CO-5. Establish the heat of ionization of weak acid.	
DSC-A&B Inorganic	CO-1. Develop the skill for the preparation of standard solution of any	
Chemistry Practical's	concentration.	
	CO-2. Apply the various synthetic skills to prepare inorganic complexes	
	CO-3. Separate cations by paper chromatography.	
	CO-4. Develop hands on expertise for the paper chromatographic	
	techniques.	
DSC-A&B Organic	CO-1. Estimate quantitatively the amount of given drug samples.	
Chemistry Practical's	CO-2. Identify the given organic compounds qualitatively by applying	
	various simple laboratory tests.	
	CO-3. Prepare benzoic acid from benzamide.	
	CO-4.Determine the melting and boiling point of given organic compound.	

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### **BSc I Electronics**

# DSC-A Theory-I Paper-I Title: Basic Circuit Theory and Network Analysis

## · Course Outcome:

- 1. Explore fundamental laws and elements of electrical circuits.
- 2. Understand DC circuit, theorems, and networks.
- 3. Reduce more complicated circuits into simpler equivalent circuits
- 4. Understands AC circuits and related terminologies with examples.
- 5. Design simple DC and AC circuits and solve numerical problems.

# DSC-A Theory-II Paper-II Title: Digital Fundamentals

# · Course Outcome:

1. Convert different type of codes and number systems in computers and communication. 2. Describe switch model used to illustrate building blocks of digital circuits. 3. Use Boolean algebra and Karnaugh maps for reduction of logic expressions and circuits.

- 4. Perform arithmetic operation on binary numbers and design simple arithmetic logic circuits
- 5. Introduction to TTL logic family

# DSC-B Theory-I Paper-III Title: Semiconductor Devices

# · Course Outcome:

- 1. Understand the basic material and properties of semiconductors
- 2. Explore the constructional features of basic semiconductor devices.
- 3. Describe the biasing principles of semiconductor devices like diode and transistors
- 4. Understand basic diode circuits
- 5. Explain the I-V characteristics of semiconductor devices like diode, BJT, UJT, JFET, MOSFET,
- 6. SCR, DIAC, TRIAC & IGBT

# **DSC-B** Theory-II Paper-III Title: Digital Electronics

# · Course Outcome:

- 1. Introduction to PLCs
- 2. Understand different combinational logic circuits such as decoder, encoder, multiplexers and de-multiplexers
- 3. Understand flip flops
- 4. Develop counters, shift registers using flip flops

# **Department of Mathematics**

# **Course Outcomes**

# Sem - I

# DSC-A Theory-I Algebra

Upon successful completion of the course, student will be able to

- Solve the system of linear equations, find rank of the matrix, inverse of matrix using Cayley-Hamilton theorem.
- Evaluate modulus, argument and roots of a complex numbers.
- Derive Circular, Hyperbolic functions a complex variable with their inverses.
- Make use of algebraic structures to define a group.

# DSC-A Theory-II Calculus

Upon successful completion of the course, student will be able to

- Evaluate the limits using L'Hospital rule.
- Construct the nth derivatives of f(x) = uv utilising properties and Leibniz rule.
- Find higher order partial derivatives, degree of homogeneity, p.d.s utilising Euler's and composite rules and corollaries.
- Explain the concept of vectors, scalars and vector differentiation in other branches.

Sem - II

DSC-B Theory-I Geometry

Upon successful completion of the course, student will be able to

- Classify Conics and discuss translation and rotation.
- Make use of the equations of plane line, and sphere.
- Explain the concept of cone and evaluate.
- Explain the concept of cylinder and evaluate

# DSC-B Theory-II Differential Equations

Upon successful completion of the course, students will be able to

- Solve first order variable separable, homogeneous, non-homogeneous, linear, reducible differential equations and LDEs with constant coefficients.
- Evaluate IF and CF in all cases.
- Discuss the applications of Mathematics in other disciples.
- Explain the concept of growth and decay, electric circuits and carbon dating etc.

# COs for BSc-I Physics Syllabus (w.e.f. June 2020-21)

# **4** DSC-A: Theory-I: Title: Mechanics and Properties of Matter.

### **Unit 1: Moment of Inertia**

• Student will acquire knowledge about Moment of Inertia, which will help him/her to analyse and evaluate MI with respect to mass, shape and dimensions of the body.

### Unit 2: Pendulums

• Student will gain knowledge about oscillatory motion of a body, which will help him/her to analyse, synthesize, apply and evaluate the elastic properties of a body.

## **Unit 3: Elasticity**

• Student will gain knowledge about elasticity of a body which will help him/her to analyse, apply and synthesize the elastic properties of a body.

### **Unit 4: Surface Tension**

• Student will gain knowledge about pressure, temperature and ST and interrelation between them. On basis of this knowledge student will comprehend, apply, analyse and evaluate properties of fluids related to ST.

# **4** DSC-A Theory-II Title: Optics and LASER

### **Unit 1: Aberrations and Optical Instruments**

• Student will be able to comprehend, apply and evaluate the optical properties of light based on the knowledge gained on geometrical optics.

### **Unit 2: Interference**

• Knowledge gained on interference of light will help the student to apply, analyse, synthesize and evaluate the light and medium properties.

### **Unit 3: Diffraction**

• Student will gain knowledge about diffraction and will be able to apply, analyse and evaluate the properties of light and medium.

### Unit 4: LASER

• Student will gain knowledge about LASER and will be able to apply, analyse and evaluate LASER and their properties.

# **4** DSC-B Theory-I Title: Heat and Thermodynamics

### **Unit 1: Transport Phenomenon**

• Student will be able to comprehend, apply and analyse the behaviour of gases based on temperature, viscosity and conductivity of the gases and medium.

### **Unit 2: Liquification of Gases**

• Knowledge acquired on liquification of gases will help the student to apply, analyse, synthesize and evaluate phase change from gaseous state to liquid state.

### **Unit 3: Thermodynamics**

• Knowledge gained about thermodynamics will help the student to comprehend, apply and evaluate the effect of temperature on the existence on physical state of body.

### **Unit 4: Heat engines**

• Student will be able to apply, comprehend, analyse and evaluate heat engines.

# **4** DSC-B Theory-II Title: Electricity, Magnetism and Electronics

## **Unit 1: Varying Current**

• Student will apply, evaluate and analyse the functions, properties and use of DC signals.

## Unit 2: A.C. Circuits

• Student will apply, analyse and evaluate the functions, properties and use of AC signals.

## **Unit 3: Magnetostatics and Ballistic Galvanometer**

• Student will apply, analyse and evaluate the practical importance & drawbacks of magnetostatics.

## **Unit 4: Semiconductor Devices and applications**

• Student will apply, analyse and evaluate the properties, applications & precautions while handling electronic devices.

# 🖊 DSC-A & DSC-B Practical-I

## Group I – General Physics, Heat

• Student will perform and demonstrate the experiment, apply, analyses and evaluate the experimental problems. He/She will also solve, comprehend and create practical demonstrations on experiments on Properties of Matter and Heat.

## **Group II – Optics, Electricity and Electronics**

• Student will perform and demonstrate the experiment. He/She will apply, analyses and evaluate the experimental problems. They will also solve, comprehend and create practical demonstrations on experiments in Optics, Electricity and Electronics.

BOS Chairman Physics Dept.

# **Department of Zoology Course outcomes (COs)**

### B.Sc.I Sem I

### **Course Title- Animal Diversity- I**

Course Outcome: Student is able to

- 1. describe general taxonomic rules on animal classification
- 2. classify Protista up to phylum using examples from parasitic adaptation
- 3. classify Phylum Porifera to Echinodermata with taxonomic keys
- 4. describe Phylum Nematoda and give examples of pathogenic Nematodes
- 5. describe Phylum Annelida and give examples of segmented animals, significant of segmentation and economic importance.
- 6. describe Phylum Arthropoda and economic importance.
- 7. describe Phylum Mollusca and economic importance and skill enhancement.
- 8. describe Phylum Echinodermata and water vascular system

### **Course Title- Animal Diversity II**

### Course Outcome: Student will be able to

- 1. imparts conceptual knowledge of vertebrates, their adaptations and associations in relation to their environment
- 2. classify phylum Protochordata to Mammalian
- 3. complex Vertebrate interactions
- 4. economic importance of fishes
- 5. parental care in Amphibians, different types of snakes, flight dynamism in birds, adaptive radiations in Mammals according to habit and habitat.

### **B.Sc.I Sem II**

### **Course Title- Comparative Anatomy of Vertebrates**

Course Outcome: After successfully completing this course, the students will be able to:

- 1. Develop an understanding of the evolution of vertebrates thus integrating structure,
- 2. function and development.
- 3. Have an overview of the evolutionary concepts including homology and homoplasy,
- 4. and detailed discussions of major organ systems.
- 5. Understand how cells, tissues, and organisms function at different levels.

- 6. The course content also provides the basis of understanding the functioning of organs in animals and human being.
- 7. Develop an understanding of the related disciplines like histology, neurophysiology, pharmacology, biochemistry etc.
- 8. Get a flavor of research besides improving their writing skills and making them well
- 9. Versed with the current trends in life sciences.
- 10. It will further enable the students to think and interpret individually due to different aspects chosen.
- 11. Undertake research in any aspect of animal physiology in future.

## **Course Title- Developmental Biology of Vertebrates**

Course Outcome: After successfully completing the course, the students will be able to

- 1. Develop critical understanding how a single-celled fertilized egg becomes an
- 2. embryo and then a fully formed adult by going through three important processes of cell division, cell differentiation and morphogenesis.
- 3. Understand how developmental processes and gene functions within a particular tissue or organism can provide insight into functions of other tissues and organisms.
- 4. Realize that very similar mechanisms are used in very diverse organisms; and
- 5. Development is controlled through molecular changes resulting in variation in the expression and function of gene networks.
- 6. Understand how the field of developmental biology has changed since the
- 7. beginning of the 19th century with different phases of developmental research
- 8. Predominating at different times.
- 9. Examine the evolutionary history of the taxa based on developmental affinities.
- 10. Understand the relevance of developmental biology in medicine or its role in
- 11. Development of diseases.



Department of Marathi

# COs & PSOs

#### FACULTY OF ARTS & HUMANITIES B.A. MARATHI

### **Programme Specific Outcomes**

After successful completion of three year B.A. Marathi Programme, the graduate will be able to: PSO1: Develop interest to appreciate beauty of language and literature .

PSO2: Able to analyse critically the values of life and literature.

PSO3: Effectively Communicate and create in Marathi language.

PSO1: भाषा आणि साहित्याचे आकलन आणि आस्वादन करतील.

PSO2: साहित्याची समीक्षा करण्यास सक्षम झालेले असतील.

PSO3: मराठी भाषेतुन प्रभावी संवाद आणि कला निर्मिती करतील.

## **Programme : Bachelor of Arts Marathi**

### I Semester

Course Title	Course Outcome
COMPULSORY	१ मराठी गद्य व पद्य वाङ्मयाची प्राथमिक ओळख होईल.
MARATHI -I	२ मराठी गद्य व पद्याच्या भाषेचे विविधांगी स्वरूप समजेल.
	३ विद्यार्थ्यांना भाषा अभिव्यक्तीचे महत्त्व समजेल.
	४ भाषण कौशल्य आत्मसात होऊन तो स्पर्धांमध्ये भाग घेईल.
	५ विद्यार्थ्यांमधून व्यावसायिक सूत्रसंचालक तयार होतील.
	६ मराठी लेखनात विरामचिन्हांचा योग्य वापर करता येईल.
OPTIONAL MARATHI-I	<b>१.</b> विद्यार्थ्यांना मराठी कथा वाङ्मयाची ओळख होईल.
	२. मराठी कथाकार व कथांचे विविधांगी स्वरूप समजेल.
	<b>३.</b> व्यक्तिगत व कार्यालयीन पत्रव्यवहार करण्याचे ज्ञान मिळेल.
	<b>४</b> . कार्यालयातील आवक जावक नोंदवहीचे लेखन करता येईल.
	<b>५.</b> विद्यार्थ्यांना टिप्पणी लेखनाचे ज्ञान मिळेल.
	<b>६.</b> मराठी कवितेचा परिचय होईल.
	७. कवींच्या कवितांचा आस्वाद घेता येईल.
	८. मराठी कवितांचे लेखन करण्याची प्रेरणा मिळेल.
	९. विद्यार्थी मराठी भाषेचा संगणकीय वापर करतील.
	<b>१०.</b> इंटरनेटच्या माध्यमातून मराठी भाषेची विविध कौशल्ये आत्मसात होतील.

# **II Semester**

Course Title	Course Outcome	
COMPULSORY MARATHI U	१ मराठी गद्य व पद्य वाङ्मयाची प्राथमिक ओळख होईल.	
	२ मराठी गद्य व पद्याच्या भाषेचे विविधांगी स्वरूप समजेल.	
	3 विद्यार्थ्यांना भाषा अभिव्यक्तीचे महत्त्व समजेल.	
	<b>४</b> भाषण कौशल्य आत्मसात होऊन तो स्पर्धांमध्ये भाग घेईल.	
	<b>५</b> विद्यार्थ्यांमधून व्यावसायिक सूत्रसंचालक तयार होतील.	
	<b>६</b> मराठी लेखनात विरामचिन्हांचा योग्य वापर करता येईल.	
<b>OPTIONAL MARATHI-</b>	<b>११.</b> विद्यार्थ्यांना मराठी कथा वाङ्मयाची ओळख होईल.	
II	<b>१२.</b> मराठी कथाकार व कथांचे विविधांगी स्वरूप समजेल.	
	<b>९३.</b> व्यक्तिगत व कार्यालयीन पत्रव्यवहार करण्याचे ज्ञान मिळेल.	
	<b>१४.</b> कार्यालयातील आवक जावक नोंदवहीचे लेखन करता येईल.	
	<b>१५.</b> विद्यार्थ्यांना टिप्पणी लेखनाचे ज्ञान मिळेल.	
	१६.मराठी कवितेचा परिचय होईल.	
	<b>१७.</b> कवींच्या कवितांचा आस्वाद घेता येईल.	
	<b>१८.</b> मराठी कवितांचे लेखन करण्याची प्रेरणा मिळेल.	
	<b>१९.</b> विद्यार्थी मराठी भाषेचा संगणकीय वापर करतील.	
	इंटरनेटच्या माध्यमातून मराठी भाषेची विविध कौशल्ये आत्मसात होतील.	

# **Department of Geography** B. A. I

# SEM I

### **PAPER I-** Geomorphology

- Understand physical, social, Economic and environmental perspectives.
- Remember study the earth movements
- Compare geomorphic Processes such as weathering, mass wasting etc.
- Understand the methods of representation of relief.
- Compare the evolution of Landforms.

# **B. A. I**

## SEM II

## **PAPER II- Human Geography**

1. To Understand Origin of Human Geography

- 2. To study the human race.
- 3. To analyze the population growth and distribution.

4. To study the methods of representation of population data

## B. Sc I

## SEM I

### **PAPER I- Geomorphology-1**

- Demonstrate concepts of Geomorphology
- Remember the Interior Structure of the earth.
- Classify Rocks and explain its characteristics
- Compare the earth movements **PAPER II- Geomorphology-2**
- Demonstrate concepts of Geomorphic Process
- Remember the Concept and cycle of Erosion
- Understand concept and Cycle of Erosion Compare the erosional and depositional

# B. Sc I

### SEM II

### PAPER III- Human Geography-1

- Understand concept of Human Geography
- Classify and Compare race
- Analyze the Human Culture through religious and language group in the world

• Compare the tribes in cold desert and mountain region

# PAPER IV- Human Geography-2

- Understand concept of population
- Compare growth and distribution of population
- Compare rural and urban settlements
- Classify Factors affecting on Agriculture
- Solve the Problems of Agriculture

## Practical paper No. 1

- Construct proper map through cartographic techniques and tools.
- Make use of proper Map Scale Construct and classify Projection of Maps

# Practical paper No. 2

- Construct proper map through cartographic techniques and tools.
- Make use of proper Statistical Data and methods
- Remember the concept of Remote Sensing

# **Department of BCA**

# I Semester

Course Title	Course Outcomes		
	CO1: Compare computer generations.		
Fundamental of computer	CO2:Explain block diagram of CPU and its working.		
	CO3:Describe computer memory.		
	CO4:Use various types of Input/Output devices, Computer language ,software and its types.		
	CO5:Explain computer network and protocol.		
Logia Douglonment with	CO1: Design algorithms and flowcharts .		
C Programming	CO2: Explain data types ,operators and expressions.		
	CO3: Use IDE to write ,compile, run and test C programs.		
	CO 1: Analyze a web page and identify its elements and attributes.		
Web Programming-I	CO 2: Produce web pages using HTML and Cascading Style Sheets.		
web i logianning-i	CO 3: Explore examples of coding practice and web site design.		
	CO 4: Utilize their design skills to create a professional website.		
	CO1:Explain Basic Software Engineering Methods and their applications		
Software Engineering I	CO2:Find Software requirement to build an applications		
Software Engineering-1	CO3:State Software Process model such as waterfall, spiral models		
	CO4:Produce Reliable, robust and cost effective softwares		
	CO1:Illustrate relations between two sets and determine if the relation is a partial order relation or an equivalence		
	relation using set operations.		
<b>Discrete Mathemetics</b>	CO2 :Demonstrate the concepts of set theory, partition of sets, inclusion and exclusion principles.		
	CO3: State an argument using logical notation and determine if the argument is valid or invalid.		
	CO4: Examine whether the function is invertible or not and find the inverse of the		
Statistical Methods-I CO1: Explain the concepts of population and various sampling methods for data collection.			

	CO2: Tabulate statistical information given in descriptive form and to use various graphical techniques to interp	
	the data.	
	CO3: Learn the notion of measures of central tendency and dispersion.	
	CO4:Describe the concept of bivariate data and its analysis.	
	CO1: Learn Different number systems and their conversion	
Digital Electronica	CO2: Explain different minimization techniques such as applying Boolean laws and K-map	
Digital Electronics	CO3: Learn implementation and working of combinational circuits	
	CO4: Explain implementation and working of sequential circuits	
	CO1:Learn the importance of OS in computer system and compare different types of OS	
	CO2: Discuss the process and process life cycle	
Operating System-1	CO3: Learn different process scheduling algorithms	
	CO4:Understand how processes are synchronized in OS	

# **II Semester**

Course Title	Course Outcomes		
Office Automation	CO1: Create, edit, save and print documents with list, tables, header, footer, graphic, spellchecker and mail merge.		
	CO2:Prepare documents and small presentations.		
	CO3: Acquire knowledge of spreadsheets with formulas.		
	CO4: Apply different operations on sheets such as sorting , filtering , validation and subtotal		
	CO1: Develop reusable modules(functions)		
A	CO2:Develop programs using functions ,pointers ,and macros .		
Advanced	CO3: Implement program by using dynamic memory allocation.		
	CO4: Analyze the structure and union concepts by developing programs.		
	CO5:Develop mini projects by using file handling and graphic concept.		
Web Programming II	CO1: Construct dynamic web pages using JavaScript (Client-side programming).		
web Flogramming -II	CO2: Produce XML documents.		

	CO3: Design web pages using HTML tags and JavaScript.		
	CO4: Apply their design skills to create a professional website using Bootstrap.		
	CO1:Design ERD and DFD for Any System.		
Software Engineering-II	CO2:Explain different System development tool using examples		
	CO3:Apply white and black block testing in their system.		
	CO4:Describe the concepts of Consruction of any system.		
	CO1:State the concept of graphs, enumerate the types of graphs and their applications in practical situations		
	CO2: Acquire the concepts of subgraph and draw or perform union, intersection and ring sum of graphs.		
Graph Theory	CO3:Demonstrate comprehension of discrete structure and their relevance within the context of computer science, in		
	the areas of data structures and algorithms.		
	CO4:Describe the concepts and properties of trees.		
	CO1: Explain basic difference between discrete and continuous random variables		
Statistical Mathada II	CO2: Learn fundamental aspects of probability theory with its applications		
Statistical Methods-II	CO3: Describe special discrete and continuous distributions with their properties		
	CO4: Estimate parameters of distribution with real life data		
	CO1: Identify a detailed software and hardware structure of the Microprocessor.		
Mienennoegoon	CO2: Develop programs for microprocessor and microcontrollers		
wheroprocessor	CO3: Illustrate how the different peripheral interfaces IC 8255, 8253 are interfaced with the Microprocessor.		
	CO4:Enhance their practical knowledge through laboratory experiments		
	CO1:Explain causes of deadlock and how to solve deadlock problems.		
Operating System II	CO2:Describe the memory management		
Operating System II	CO3:Summarize process criteria in a system		
	CO4: implement file system, file handling and file management in OS		

# Course outcomes of BBA Part I & II

	BBA	FIRST YEAR
	SE	EMESTER I
Course Code	Course Title	CO's
AECC 1	Business Communication –I	<ul> <li>Explain the process of communication, channels and barriers of communication</li> <li>Explain the principles of effective written communication</li> <li>Effectively use writing skills to draft Business Letters and Emails</li> <li>Effectively use writing skills to draft reports, notice, agenda and minutes of meeting</li> <li>Analyze a business case study and think about the best possible solution</li> </ul>
CC 1	Principles of Management – I	<ul> <li>Explain the principles of management and compare contribution of managerial scientists</li> <li>Describe the planning and decision making process</li> <li>Explain the process of organizing and authority delegation</li> <li>Describe the importance of decentralization and co-ordination</li> <li>Explain the similarities and difference in business management practices applied in various countries as compared to India.</li> </ul>
CC 2	Accounting for Business - I	• Explain the meaning and importance of Bookkeeping and Accounting

		• Explain the accounting concepts,
		principles, conventions and standards
		Prepare the Trial Balance
		• Calculate the Depreciation using straight
		line and reducing balance method
		• Prepare the Final Accounts for Sole
		Proprietor
		• Understand the various business
		decisions and basic concepts of micro and
		macroeconomics
		• Explain how consumer bahaviour shapes
		the demand curve with respect to utility
CC 3	Business Economics –I	• Measure how changes in price and income
00.5		affect the bahaviour of buyers and sellers
		• Analyze the relationship between inputs
		used in production and the resulting
		outputs
		• Understand pricing and output decisions
		under various market structures
		• Describe the economic and social
	Business Organisation &	objectives of business. Explain the impact
		of industrial revolution.
		• Distinguish between the various forms of
		business organization.
		• Explain the factors that influence the
CC 4	Environment- I	choice of a suitable form of business
	Livi onnent- i	organization.
		• Explain the different types of trade.
		Appreciate the services of wholesalers and
		retailers.
		• Examine the role of various auxiliaries in
		facilitating trade

		• Elaborate the applications of technology in
		business. Examine the scope of
		outsourcing and appreciate its need.
		• Explain the input, output devices of
		computer and know the internal and
		external memory components.
		• Describe the functions of operating
		systems and know the concept of
		application software.
CC 5	IT for Management – I	• Draft a document in Word file by applying
		various formatting tools.
		• Use the Excel Sheet for drawing
		customized tables by applying various
		tools.
		• Prepare PowerPoint Slides for
		presentation using various tools
	В	BA Sem II
		• Explain the principles of effective oral
		communication.
		• Effectively use oral skills during
		interviews and group discussions.
AECC 2	Business Communication –	• Effectively apply oral skills during
	II	presentations.
		• Observe and apply the non-verbal modes
		• Observe and apply the non-verbal modes of communication.
		<ul> <li>Observe and apply the non-verbal modes of communication.</li> <li>Explain the various technologies used in</li> </ul>
		<ul> <li>Observe and apply the non-verbal modes of communication.</li> <li>Explain the various technologies used in communication</li> </ul>
		<ul> <li>Observe and apply the non-verbal modes of communication.</li> <li>Explain the various technologies used in communication</li> <li>Explain the process of staffing and the</li> </ul>
CC 1	Principles of Management –	<ul> <li>Observe and apply the non-verbal modes of communication.</li> <li>Explain the various technologies used in communication</li> <li>Explain the process of staffing and the importance of directing and supervising.</li> </ul>
CC 1	Principles of Management – II	<ul> <li>Observe and apply the non-verbal modes of communication.</li> <li>Explain the various technologies used in communication</li> <li>Explain the process of staffing and the importance of directing and supervising.</li> <li>Explain the process and techniques of</li> </ul>

		• Describe the importance of leadership and
		various leadership styles.
		• Explain the process and techniques of
		controlling.
		• Justify the importance of doing business
		ethically
		• Prepare the Cost Sheet by classifying
		various cost elements.
		• Calculate stock levels of Materials, prepare
		the stock ledger.
		• Compute wages under various
CC 2	Accounting for Business - II	Remuneration system & Incentive
		schemes.
		• Compute the Machine Hour Rate in the
		process of overhead distribution.
		• Understand the usefulness of Marginal
		Costing in calculating Break-even point
		• Explain the basics of Macro Economics
	Business Economics –II	with its objectives.
		• Describe the challenges faced by Indian
		economy in its Economic Development.
		• Describe the functions of commercial
CC 2		banks, central bank and the objectives of
		monetary policy.
		• Understand the management of public
		revenue and expenditure.
		• Explain the importance of investment in
		human capital for economic growth and
		development.
CC 4	Business Organisation &	• Brief out an overview about the
CC 4	Environment- II	environment in which the business works.

		•	Explain how the economic environment
			affects the working of a business.
		•	Explain how the technological
			environment affects the working of a
			business.
		•	Explain how the social and cultural
			environment affects the working of a
			business. Elaborate the concept of
			Corporate Social Responsibility.
		•	Explain how the political and legal
			environment affects the working of a
			business and what are the benefits of good
			corporate governance
		•	Explain the data communication channels
	IT for Management – II		and basics of networking in business
			environment.
		•	Describe the importance of Management
			Information System in business.
		•	Understand the various types of
66.5			information systems with their
			applications.
		•	Identify how the information system is
			applied in business.
		•	Explain the applications of E-commerce
			and M-Commerce in business.
	BBA S	SECON	D YEAR
	SE	MEST	ER III
		•	Explain the meaning, process and the
	Statistics for Business Research – I		criteria required for good research.
CC 6		•	Develop understanding about types of
			research, research designs and how good
			research design Should be.

		• Explain what a sample is, what are the
		various methods of sampling and also, he
		will be able to Identity primary &
		secondary sources of data.
		• Develop the understanding of scaling
		techniques and its usefulness.
		• Prepare their own research report.
		• Understand the importance of Soft skills
		and how to practice soft skills.
		• Understand SWOT analysis and its
		importance.
CC 7	Foundation of Human Skills	• Understand the factors affecting
ւլ /	– I	individual behavior.
		• Understand the importance of Emotional
		intelligence.
		• Do effective time management and will
		also be able to manage stress effectively.
		• Students will develop real expertise in one
		of the basic areas of business.
		• Students will develop knowledge of
		international politics, economics, and
		culture.
		• Explain business expansion abroad and
CC 8	International Rusiness – I	key issues related to their operations in
	lliter national Dusmess	other countries.
		• Be able to indicate problem issues within
		international business and/or innovation
		and entrepreneurship, analyze these
		issues, draw conclusions.
		• Students will have an understanding of
		global perspectives

		• Aware of different opportunities and
		successful growth stories.
		• Learn how to start an enterprise and
		design business plans those are suitable
		for funding by considering all dimensions
	Entropyonourshin	of business.
CC 9	Entrepreneurship	• Understand entrepreneurial process by
	Development -1	way of studying different case studies and
		find exceptions to the process model of
		entrepreneurship.
		• Run a small enterprise with small capital
		for a short period and experience the
		science and art of doing business.
	Management Accounting - I	• Understand the meaning and scope of
		Management Accounting.
		• Understand the role of Management in
		Decision- Making Process.
		• Understand the most powerful tool in
CC 10		management accounting; how changes in
		both fixed, variable cost and change in
		volume affects the organization profit.
		• Prepare various types of budgets which
		will be a helpful method in financial
		business planning for future.
		• Describe the importance of financial
GE 1A		literacy add list out institutions providing
		financial services.
	Financial Services	• Open, avail and manage/operate services
		offered by banks.
		• Open, avail and manage/operate services
		offered by Post office.

		• Plan for life insurance and property
		insurance
		• Knowing the role that each word has in a
		sentence structure clearly helps to
		understand sentences and also to
		construct them properly.
		• Demonstrate an understanding of more
		complex grammatical structures in
		conversations and discussions. In
		addition, students will begin to initiate and
		sustain conversations and discussions.
CF 1 A	English	• Identify the verb and tense in a sentence,
UL I M		also be able to speak and write a sentence
		using the past, present, or future tense.
		• Articulate how adverbs modify verbs, also
		helps to frame common everyday words
		with the help of phrasal verbs.
		• Helps the learner to write error-free text
		and also helps to understand the message
		that is being conveyed. Punctuation refers
		to all the symbols that enhance sentences
		and add clarity.
SEC 1	Business Plan Project	Project work
	Se	emester IV
		• Classify, prepare, and present the data in
		tabular format.
	Statistics for Business	• Do Graphical presentation of data by
CC 6	Research - II	locating mode on histogram & median on
		Ogive.
		• Explain the various measures of central
		tendencies and their properties.

		• Find the degree & direction of correlation
		between comparable variables which will
		help them to predict, plan & control
		business activities in future
		• Understand the importance of body
		language & etiquette.
		• Develop a good attitude & understand
		types of Organizational Attitude.
	Foundation of Human Skills	• Understand the importance of group
CC 7		behavior & team building.
	- 11	• Develop problem solving techniques &
		understand difference between Bio data &
		CV.
		• Understand the concept, dimensions &
		determinants of organizational climate.
	International Business – II	• Students will develop real expertise in one
		of the basic areas of business.
		• Students will develop knowledge of
		international politics, economics, and
		culture.
		• Explain business expansion abroad and
60.8		key issues related to their operations in
		other countries.
		• Be able to indicate problem issues within
		international business and/or innovation
		and entrepreneurship, analyze these
		issues, draw conclusions.
		• Students will have an understanding of
		global perspectives
CC 9	Entrepreneurship	• Have the ability to discern distinct
	Development -II	entrepreneurship traits.

		• Know the parameters to assess
		opportunities and constraints new
		business.
		• Understand the systematic process to
		select and screen a business idea.
		• design strategies for successful
		implementation of ideas.
		• To write a business plan
		• Understand the meaning of standard
		costing as a control device highlighting
		activities that are not according to the plan
		and alerting management for corrective
		measure.
		• Prepare statement showing change in
	Management Accounting - II	working capital and prepare of funds flow
CC 10		statement.
		Classify the Cash Flow into Operating
		Activity, Financing Activity & Investing
		activity. Also, the students will be able to
		prepare a Cash Flow Statement.
		• Understand the importance of
		Management Information System, type of
		reports, various levels of management.
		• Understand the various concepts in
		taxation, tax slabs and deductions
		available.
		• Evaluate the residential status of an
GE 2	Taxation	Individual. Compute the taxable income of
		an individual. Understand the meaning
		ofShort term & Long-term Capital Gains.
		• Understand the genesis/meaning of GST
		and the Four tier GST rate structure.

		•	Understand	importance	of	body
			management	techn	iques-	asanas,
			Pranayama, Ki	riya.		
		•	Demonstrate p	oostures of Hat	ha Yog	ga, Raja
			Yoga and Laya	Yoga.		
GE 2 B	Mind Management	•	Interpret the s	significance of I	Medita	ation in
			business conte	ext.		
		•	Demonstrate a	isanas, pranaya	ama an	ıd kriya
			with proficien	cy.		
		•	Summarize the	e importance o	f Ayur	veda in
			modern lifesty	vle		
SEC 2	Market Survey Project	•	Project work			

# Department of ECS

Course Title	Course Outcomes		
	CO1. Understand the History of Computers.		
	CO2. Understand What is Computer and Basic concepts of computer.		
Fundamental of	CO3. Aware about various types of Computers, types of input and		
computer	output devices.		
	CO4. Understand the basics of Computer Networks		
	CO5. Awareness of Internet and Search Engines		
	CO1.Students will learn computer applications from basics to advance		
	CO2.Office Automation Will help the students in documenting the		
Office	CO2 With the help of Office automation students can perform		
Automation	accounting operations		
	CO4 It will help to learn presentation skills		
	CO5 Using open source applications		
	CO1 Acquire the knowledge of how to write algorithm flowchart and		
	pseudo code of given problem		
	CO2. Acquire the basic knowledge of data types, operators and		
Logical	expressions.		
Developement	CO3.Implement the Program by using conditional Statement and looping		
With 'C'	Statement.		
Programming	CO4.Describe the concept of Array and it's types and develop the		
	program by using Array.		
	CO5.Perform operations on String by using String handling functions.		
	CO.1 Acquire the knowledge of functions and types of functions and		
Advanced	develop the Illustrate the different types of storage classes.		
Programming in	CO2.Explain pointer and it's types and Develop the program by using		
'C'	pointer.		
_	CO3.Implement the program by using dynamic memory allocation.		
	CO4.Develop mini-project by using File handling and graphics concepts.		
	CO1.Seek the knowledge of set theory, partition of sets, inclusion and exclusion principles		
	CO2 State the concent of graphs, enumerate the types of graphs and		
	their applications in practical situations		
	CO3 Acquire the concepts of subgraph and draw or perform union.		
Discrete Structure	intersection and ring sum of graphs.		
	CO4.Demonstrate comprehension of discrete structure and their		
	relevance within the context of computer science, in the areas of data		
	structures and algorithms.		
	CO5.Describe the concepts and properties of trees.		
	CO1.Solve the system of linear equations by using Gauss elimination		
Numero	and Jordan method.		
Numerical	CO2.Investigate and find the solution of nonlinear equations using		
wiethous	different numerical methods (Bisection method, Regula Falsi method,		
	Newton Raphson method) under different conditions and Compare		

	different methods in numerical analysis w.r.t accuracy and efficiency of solution.
	CO3.Derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.
	CO4.Demonstrate the ability to interpret a differential equation qualitatively and Solve a variety of differential equations analytically and numerically. Using appropriate numerical methods determine the approximate solution of ODE and system of linear equations.
	CO1.Acquire concepts of Basic Electrical signals
	CO2.Describe the working of basic electronics components
Linear Electronics	CO3.Classify the different networks theorems and use of it
- 1	CO4.Acquire basic knowledge on the working of various semiconductor devices
	CO5.Develop analysis capability in BJT and FET Amplifier Circuits
	CO1.Covert one number system into another Number system
	CO2.Write the working of different Logic gates and construction
	universal building blocks using NAND and NOR gates
Digital Electronics	CO3.Describe the use of Boolean and K Map simplification methods
	CO4.Construct basic combinational circuits and verify their
	functionalities
	CO5.Differentiate between combinational and sequential logic circuits C
	CO6.Design of Counters and Register

# Semester II

Course Title	Course Outcomes
	CO1.Understand the basic principles and standards of standard web design
Web Technology-I	CO2.Understand how to design websites with different website development models.
	CO3.Know the different page types on websites and its navigations.
	CO4.Designing websites using HTML and CSS
	CO1.understand Javascript and increase the interactivity of their website.
Wah	CO2.understand how to solve practical web design problems.
Technology-II	CO3.understand how to use jQuery to create effective scripts to improve the end-user experience.
	CO4.understood how to publish and host the developed websites
	CO1.Acquire the knowledge of object Oriented Concept.
Object Oriented Programming - I	CO2.Explain the difference between Procedure oriented Programming and
	Object Oriented programming.
	CO3.Describe the concept of function overloading, Parameter passing methods

	CO4.Acquire the knowledge of access specifier, static data member, static member function and Write the effective program with the help of these concepts.
	co5. Demonstrate the use of constructor and destructor with the help of program.
	CO1.Acquire the knowledge of operator overloading and overload different types of binary and unary operators in Program.
	CO2.Develop reusable programs using the concepts of Inheritance and Polymorphism.
Object Oriented	CO3.Classify the different types of inheritance and use them in Program.
II	CO4.Demonstrate the concept of virtual function and pure virtual function with the help of Program.
	CO5.Handle the run time error by using exception handling mechanism and develop Generic Programming with the help of class and function template.
	CO1.Prove formulas that are valid for all n N by using the principle of mathematical induction.
Mathematical	CO2.Illustrate relations between two sets and determine if the relation is partial order relation or equivalence relation using set operations.
Algebra	CO3.Determine whether the function is one-one, onto and inverse of function.
	CO4.State an argument using logical notation and determine if the argument is valid or invalid.
	CO1.Explicate the Operations Research, Linear Programming Problem and explain the methods of solving Solution of LPP using Graphical Method, Simplex method.
Operational	CO2.Solve Transportation and Assignment problems.
Reseacrh	CO3.Develop linear programming (LP) models for shortest path, assignment problem and transportation problems.
	CO4.Discern the mathematical tools that are needed to solve optimization problems.
	CO1.Describe the types of Multivibrator,Oscillators
	CO2.Illustrate operational amplifiers characteristics and its various applications
Linear Electronics - II	CO3.Identify and describe various Audio and video devices and its
	CO4 Describe various sensors working and uses of it in real world
	CO5 Identify different brush and brushless motors
	CO1.Describe basic building of PLD devices
	CO2.Describe basic principles of analog-to-digital (AD) - and digital-to-
	analog (DA) conversion
Digital	CO3.Classify different memory devices in context to speed, Storage capacity
Microprocessor	and working principle
	CO4.Explain Internal blocks and architectures of microprocessors
	CO5.Use various instruction of 8085 in ALP programming
	CO6.Write Data transfer, Arithmetics and Logical ALP programming

# **Course Outcomes: POLITICAL SCIENCE B.A.I**

Class	Course Title	Course Outcomes
B.A. I	INDIAN GOVERNMENT AND POLITICS	<ol> <li>The student will get acquainted with the basic structures of the Indian Constitution.</li> <li>The student will be familiarized with the political process and the various factors shaping the politics of India.</li> </ol>
B.A. I	SCIENCE, TECHNOLOGY & DEVELOPMENT	<ol> <li>The student will get enlightened with the contribution of science and technology in the development of humanity.</li> <li>The student will value the importance of scientific thinking.</li> </ol>

Class	Course Title	Course Outcomes
M.A. I	POLITICAL THEORY I & II	The student will acquaint with the various stages of political theory and the relevance of learning the subject. The student will critically analyze different theories which are significant in the development of political science.
M.A. I	MAJOR IDEAS & ISSUES IN PUBLIC ADMINISTRATION	The student will comprehend the importance of Public Administration in everyday life. The student will be familiarized with different approaches and key issues as well as the citizen centric approach of the new Public Administration.
M.A. I	CONSTITUTION OF INDIA	The student will get acquainted with the basic structures and provisions of the Indian Constitution. The student will critically analyze the rules and regulations governing various organs of the government.
M.A. I	POLITICAL SOCIOLOGY	The student will discover the nature and scope of political sociology. The student will be able to understand the concepts of political culture, political socialization, political participation, political elites and the impact of social movements.
M.A. I	PUBLIC POLICY & ANALYSIS	The student will learn the meaning and approaches of public policy. The student will be familiar with the various aspects of public policy process.
M.A. I	POLITICAL PROCESS IN INDIA	The student will be familiarized with the actual political process in India. The student will critically understand the issues and factors influencing Indian politics.
M.A.I	ELECTORAL POLITICS IN INDIA	The student will learn the different stages of electoral politics in India. The student will realize the role of election commission and the patterns of voting during the last seven decades in India.
M.A.I	HUMAN RIGHTS	The student will recognize the importance of Human Rights. The student will learn different aspects of human rights. The student will be acquainted with the challenges in implementation of the human rights