

AVS COLLEGE OF ARTS & SCIENCE

DEPARTMENT OF BIOTECHNOLOGY

M.Sc Biotechnology

Programme Outcome, Course Outcome, Programme Specific Outcome

DEPARTMENT OF BIOTECHNOOLOGY	
Programme Outcome	Biotechnology teaches about biological sciences with engineering Technologies that manipulate living organisms and biological systems to produce products that advance healthcare, medicine, agriculture, food, pharmaceuticals and environment control.
Programme Specific Outcome	A general course emphasizing distribution, morphology and physiology of microorganisms in addition to skills in aseptic procedures, isolation and identification. This course also includes sophomore level material covering immunology, virology, epidemiology and DNA technology. Recommended for all allied health students. Three hours lecture and four hours lab per week.
M.Sc BIOTECHNOLOGY	
Course	Outcomes
I Sem	
Cell & Molecular Biology	This course presents the types and structural details of the basic unit by which all the living things are made of (the cell). To make the student to understood the concept of cell and their activities. This course presents the types and structural details of the basic unit by which all the living things are made of the cell.
Biophysics & Bioinstrumentation	Enable the student to get sufficient knowledge in principles and applications of bio instruments.
General Microbiology	This course presents the study of Micro organisms. To make the student to understood Micro organisms and their participation in day to day activities.
Biological chemistry	This course presents the chemical reactions or metabolic functions in the living system and their regulations. To make the student to understood the concept of biochemical regulations
Food and Agricultural Biotechnology	Students will be able design, conduct experiments, analyze and interpret data for investigating problems in Biotechnology and allied fields. Students will be able to understand the potentials, and impact of biotechnological innovations on environment and their implementation for finding sustainable solution to issues pertaining to environment, health sector, agriculture, etc.
II Sem	
Genetic Engineering	This course presents the genetics at molecular level. On successful

	completion of the subject the student should have understood the molecular aspects of genetics
Immunology & Immunotechnology	This course presents the basic defense mechanism of animals. To make the student to understand the concept immunology. On successful completion of the subject the student should have understood: Immunity, Antigen, Antibody, Cells of immune system and their function and regulations
Pharmaceutical Biotechnology	This paper presents the basics of: of pharmaceutical industry, Drugs discovery, Development phases and Drug Manufacturing Process. Drugs and Cosmetics ACT and regulatory aspects.
III Sem	
Plant Biotechnology	This course presents the application of Plants in Biotechnology. To make the student to understand usage of Plant products and exploitation of them in Biotechnology. On successful completion of the subject, the student should have understood: Crop development, Callus culture, Biotechnological applications of plants
Animal Cell Science and Technology	Comprehend the fundamental concepts of animal cell culture, and its importance. Discuss the significance of transgenesis with reference to animal models. Explain the principles and applications of animal cloning and gene therapy along with ethical concerns.
Bioprocess Technology	This paper presents the basics of fermentation technology, media components as applied to lab scale, pilot scale and industrial scale upstream and down stream processing.
Plant and Animal physiology	Use their knowledge about organs, organ structure and different cell types to explain and describe the specialized functions and regulations of the major organs and organ systems in the animal kingdom. The students should also have some insight into developmental biology and the evolution of organ systems
Environmental Biotechnology and Nanotechnology	This course presents the Study and the Management of the Environment. To make the student to understand Ecology and Conservation of environment. This course presents the nano tech at molecular level. On successful completion of the subject the students should have understood the nanotechnology aspects of nano science and bioinformatics
IV Sem	
Research Methodology	Upon completing this course, each student will be able to demonstrate knowledge of research processes (reading, evaluating, and developing), perform literature reviews using print and online databases, identify, explain, compare, and prepare the key elements of a research proposal and report
Bio-Entrepreneurship	Entrepreneurship and Innovation minors will be able to sell themselves and their ideas. Students master oral and visual presentation skills and establish a foundation of confidence in the skills necessary to cause others to act.

AVS COLLEGE OF ARTS & SCIENCE

PG & RESEARCH DEPARTMENT OF COMMERCE

PROGRAMME OUTCOMES (M.COM CA)

1. To impart knowledge in advanced concepts and applications in various fields of Commerce.
2. Expertise various areas of Commerce.
3. To orient the students in the applied aspects of different advanced business practices.
4. To provide the students the avenues of studies in parallel professional Courses.
5. To equip the students to occupy the important positions in business, industries and related organizations.
6. To inspire the students to apply the knowledge gained for the development of society in general.

PROGRAMME SPECIFIC OUTCOMES

- M.Com in Computer Applications provides several options to the candidates to become proficient in designing, developing, and maintaining of banking software. Also, it helps them to perform well in banking, finance, accounting, and in related areas.
- Candidates can add to their qualification status by pursuing M.Phil or doctorate courses in related area. Higher studies increases the career prospects of the candidate, however, M.Com in Computer Applications is enough to obtain a lucrative career in financial sector.

COURSE OUTCOMES

S. NO	COURSE	COURSE OUTCOMES
1	CORE I - Marketing Management	Make students have an understanding of the concepts of marketing and the marketing system
2	CORE II - Accounting for Managerial Decisions	Enable the students to know the applications of accounting tools, techniques and concepts in managerial decision making process.
3	CORE III - Financial Management	Financial management refers to the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the organization.
4	PRACTICAL – I Programming in C++	C++ Programming is intended for software engineers, systems analysts, program managers and user support personnel who wish to learn the C++ programming language
5	ELECTIVE-1 Organizational Behaviour	The primary objective of Organization behavior is achieving higher productivity and accomplishing goals of the organization. For that OB scientifically tries to understand the employee behavior within the organization and tries to control, improve, develop it.
6	CORE V - Advanced Cost Accounting	Cost accounting. Cost accounting is the process of recording, classifying, analyzing, summarizing, and allocating costs associated with a process, and then developing various courses of action to control the costs.
7	CORE VI - Investment Analysis and Portfolio Management	Portfolio Management is defined as the art and science of making decisions about the investment mix and policy, matching investments to objectives, asset allocation for individuals and institutions, and balancing risk against performance
8	CORE VII - Advanced Business Statistics	The objective of this course is to provide an understanding for the graduate business student on statistical concepts to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression, and correlation analysis, multiple regression and business/economic forecasting
9	ELECTIVE-II Financial Markets and Institutions	The objectives of the course are to prepare students with a good understanding of the theoretical foundation of financial market

		and institutions, and to keep students updated on the latest discourse on practical issues and policies in the new international financial environment
10	CORE IX - Research Methodology	To understand the process of research. To understand the concepts of sampling and tools for data collection and analysis.
11	CORE X - Advanced Corporate Accounting	To provide theoretical knowledge of International Financial Reporting Standards. To enable the students to gain ability to solve problems relating to Holding Company Accounts, Liquidation of Companies and various other Accounts
12	CORE XII - Income Tax and Tax Planning	Tax planning is the analysis of one's financial situation from a tax efficiency point of view so as to plan one's finances in the most optimized manner. Tax planning allows a taxpayer to make the best use of the various tax exemptions, deductions and benefits to minimize their tax liability over a financial year.
13	PRACTICAL – II Visual Basic	The student will use Visual Basic.Net to build Windows applications using structured and object-based programming techniques
14	ELECTIVE-1III Retail Marketing	The overall objective of retail marketing is creating and developing services and products that meet the specific needs of customers and offering these products at competitive, reasonable prices that will still yield profits
15	CORE XIII - Indirect Taxes	Indirect taxes are levied on production and sale of commodities and services and small or a large part of the burden of indirect taxes are passed on to the consumers. Tax imposed on commodities directly affects the prices of commodities
16	ELECTIVE – IV Insurance and Risk Management	This course introduces the concept of risk and techniques of identifying, measuring and managing it. In this context, insurance as a risk management tool is discussed with references to its role, functions and basic principles as applicable to different classes of insurance
17	CORE XIV – Service Marketing	The overall objective of Service marketing is creating and developing services and products that meet the specific needs of customers and offering these products at competitive, reasonable prices that will still

18	CORE XV – Project Work	A project objective describes the desired results of a project, which often includes a tangible item. An objective is specific and measurable, and must meet time, budget, and quality constraints
----	------------------------	--

AVS College of Arts & Science
Department of Microbiology
Details of Programme, Specific Programme and Courses Outcomes
Courses outcome

Department of Microbiology	
M.sc., Applied Microbiology	
Programme outcome	<p>This course through enhancing the abilities and skills of students for application of microbiology theories and expertise in the live problems faced by the industry</p> <p>Through this programme students get more knowledge in the areas such as microbial, water microbiology, soil microbiology, generation microbiology, nano microbiology, agricultural microbiology, industrial microbiology, evolutionary microbiology, microbial genetics, veterinary microbiology and microbial.</p>
Programme Specific Outcome	<p>The students can get following specific outcome such as Research Assistant, Food, Industrial or Environmental Microbiologists, Quality Assurance Technologists, Sales or Technical Representative, Clinical and Veterinary Microbiologists, Medical Technologists, Biomedical Scientist, Clinical Research Associate and Government job.</p> <p>Students able to predict virus, bacteria and parasite induced diseases, work as lab technician, Teacher and Medical representative etc..</p>
Courses	Outcome
General Microbiology	On successful completion of this course students can get knowledge to prevent or treat disease, develop new technologies and improve our lives

Cell and Molecular Biology	From this course, students able to understand the all diseases and disorders are caused by problems at a cell or molecular level.
Genetic Engineering and advances in Biotechnology	By this course students to alter the genotype of crop plants to make them more productive, nutritious, rich in proteins, disease resistant, and less fertilizer consuming and also can handle genetic disorders.
Immunology and immunotechnology	This course helps to the study of diseases caused by disorders of the immune system (failure, aberrant action, and malignant growth of the cellular elements of the system). It also involves diseases of other systems, where immune reactions play a part in the pathology and clinical features.
Food Dairy and Environmental Microbiology	The students would benefit from this course as they will get an in depth idea on several aspects of microbial interactions with the environment they live in, especially the aquatic and terrestrial environment as well as the food that they eat.
Industrial and pharmaceutical Microbiology	From this course student able to how microbes involved in industries, various industrial processes and industrial research. To detect mutagenic and carcinogenic activity in prospective drugs and the use of microorganisms in the manufacture of pharmaceutical products like insulin and human growth hormone.
Medical Virology & Parasitology	By this course students able to learn basic and applied knowledge of pathogenesis and treatment for virus and parasites induced diseases.
Medical Bacteriology & Mycology	On successful completion of this course students learn basic and applied knowledge of pathogenesis and beneficiary effects of bacteria and fungi used in medical systems.

Research Methodology, Biostatistics and Bioinformatics	From this course students can learn all the biological techniques, analysis of research data and find out the drug effective without animal model.
--	--

AVS COLLEGE OF ARTS AND SCIENCE

Department of Microbiology

Attainment of programme outcomes, Programme specific outcomes and course outcomes

Formative assessment:

The following methods are used to improve the student's performance:

Individual Goal, Observations, Questioning, Discussion

Peer and Self Assessments, Practical Presentations, Visual presentations, Quizzes

Seminars, Conference, Workshops, Assignments, Debate, Industrial Visit.

Establishment of a classroom culture that encourages interaction among the students

Use of varied instruction methods to meet diverse student needs.

Use of varied approaches to assessing student understanding.

Feedback on student performance and adaptation of instruction to meet identified needs.

Active involvement of students in the learning process

B) Summative Assessments:

Summative assessments are provided at end of a unit to determine how much students have learned.

Summative assessments provide information for determining grades and giving students feedback on their performance. Summative assessments may come in the form of papers, homework problems, lab reports, projects, quizzes, and tests, and can include objective or subjective tasks.

Objective tasks have clear right and wrong answers, examples of which include mathematical solutions, multiple choice, true/false, and fill in the blank questions.

Subjective tasks are more open-ended, do not have obvious right and wrong answers, and must be evaluated by professionals who truly understand the material.

Criterion-referenced assessments are based on content-based expectations, while norm-referenced assessments compare students to others who have taken the same test.

Students pass criterion-referenced tests by obtaining a score in excess of a predetermined cutscore, while they pass norm-referenced tests by performing better than a given percentage of others who took the same test.

We are following these kind of methods to improve the passing percentage every year. Therefore we achieved the positive result from the students.

Note: Formative evaluation is typically conducted during the development or improvement of a program or course. **Summative evaluation** involves making judgments about the efficacy of a program or course at its conclusion.

AVS COLLEGE OF ARTS AND SCIENCE

PG & RESEARCH DEPARTMENT OF ENGLISH

PROGRAM OUTCOMES DETAILS

1. PROGRAMME OUTCOMES

PROGRAMME NAME: M.A. ENGLISH

Students are expected to strive, like Twain to be imaginative, rhetorically dexterous and technically proficient writers in a range of creative, expository and critical genres. English course expose students to various strategies for drafting and revising, observing and analyzing, representing and persuading, researching and substantiating claims, diagnosing and developing scholarly methodologies.

English literature majors are prepared not only for careers in education, publishing and communication but also to welcome unexpected challenges and excel under changing conditions because they are intellectually curious, eloquent, motivated, resilient and self aware.

2. PROGRAMME SPECIFIC OUTCOMES:

Theory and Knowledge

1. Students will learn the theoretical foundations and research methods in advanced literary studies, and gain expertise in specific genres, periods, and topics in the field.
2. Students will demonstrate a reading knowledge of at least one foreign language.
3. Students will demonstrate a command of written academic English, including the abilities to a) organize and present material in a cogent fashion, b) formulate and defend original arguments, c) employ effectively the language of their discipline and d) write under time constraints.

Analysis and Critical Thinking

1. Students will learn to critically analyze how written, digital, visual, and spoken texts shape and are shaped by diverse local, national, global, historical, aesthetic, and ideological contexts.
2. Students will learn to evaluate and synthesize appropriate research, scholarship, and methodologies as demonstrated in advanced-level scholarly projects, creative work, discussion and presentation, and other appropriate assignments.

Research and Application

1. Students will learn to construct course-related projects directed at investigating, understanding, and applying scholarly approaches and criticism in the field of literary studies.
2. Students will learn to participate in advanced professional activities (conferences, publications, practicum experiences, research projects, and other activities).

S.NO	SUBJECT	OUTCOMES
1	CORE –I CHAUCER AND THE ELIZABETHAN AGE	This course is a brief, selective survey of English literature from Chaucer to the late seventeenth century. The reading list is drawn from a list that includes Chaucer's The Canterbury Tales, Shakespeare's Antony and Cleopatra, and Milton's Paradise Lost (selections) as well as some of the works of such Elizabethan and Jacobean poets as Spenser, Shakespeare, Donne, and Jonson.

2	CORE –II RESTORATION AND THE AUGUSTAN AGE	<p>The name 'restoration' comes from the crowning of Charles II, which marks the restoring of the traditional English monarchical form of government following a short period of rule by a handful of republican governments. The eighteenth century in English literature has been called the Augustan Age, the Neoclassical Age, and the Age of Reason. The term 'the Augustan Age' comes from the self-conscious imitation of the original Augustan writers, Virgil and Horace, by many of the writers of the period.</p>
3	CORE –III THE ROMANTIC AGE	<p>The Romantic period, 1789-1832. It examines a wide range of literary genres from the period, including various forms of poetry, the novel, and non-fictional prose writing, and offers the opportunity to study both canonical and lesser-known authors. The module is based on an historical understanding of the period, but, within that, addresses the ideas of Romanticism which have come to define the period. Themes that are likely to be discussed on the module include the relationship between politics and aesthetics, Romantic creativity, representations of the self, and the condition of the nation. The module should be of interest to anyone wishing to gain an overview of this fascinating period within literary and cultural history.</p>
4	CORE –IV INDIAN WRITING IN ENGLISH	<p>The seed of Indian Writing in English was sown during the period of the British rule in India. Now the seed has blossomed into an ever green tree, fragrant flowers and ripe fruits. The fruits are being tasted not only by the native people, but they are also being 'chewed and digested' by the foreigners. It happened only after the constant caring, pruning and feeding. Gardeners' like Tagore, Sri Aurobindo, R.K.Narayan, Raja Rao - to name only a few, looked after the tender plant night and day. In modern time, it is guarded by a number of writers who are getting awards and accolades all over the world</p>
5	ELECTIVE –I AMERICAN LITERATURE	<p>American literature is literature written or produced in the United States and its preceding colonies (for specific discussions of poetry and theater, see Poetry of the United States and Theater in the United States). Before the founding of the United States, the British colonies on the eastern coast of the present-day United States were heavily influenced by English literature. The American literary tradition thus began as part of the broader tradition of English literature.</p>

6	CORE V – THE VICTORIAN AGE	<p>In the history of the United Kingdom, the Victorian era was the period of Queen Victoria's reign, from 20 June 1837 until her death on 22 January 1901. The period was peaceful among the Great Powers, with only one mid-sized international war. Britain enjoyed strong naval superiority, leadership worldwide in manufacturing, finance, railways, shipping, and entrepreneurship. Britain embarked on global imperial expansion, particularly in Asia and Africa, which made the British Empire the largest empire in history. National self-confidence peaked.</p>
7	CORE –VI – TWENTIETH CENTURY LITERATURE	<p>Literature of the 20th century refers to world literature produced during the 20th century (1901 to 2000) The division of "popular literature" and "high literature" in the 20th century is by no means absolute, and various genres such as detectives or science fiction fluctuate between the two.</p> <p>The paper aims to fulfil the needs of the students :</p> <ul style="list-style-type: none"> • Identify, compare, and contrast the major dramas and poems produced by William Shakespeare. • Describes Shakespeare's identity as well as provide an account of his life and the legacy of his work. • Describes Elizabethan England in social and historical context. • Explains the origins of Shakespearean drama in Greek theater. • Defines a variety of Shakespearean dramatic forms, including Shakespearean tragedy, history, and comedy plays. • Identify and describe the major themes of Shakespearean tragedy, comedy, and history plays. • Explains the roots of the Shakespearean sonnet in earlier sonnet traditions. • Identify and describe the major themes and ideas at work in Shakespearean sonnets.
8	CORE VII - SHAKESPEARE	

9.	ELECTIVE –II LINGUISTICS AND STYLISTICS	<p>Stylistics, a branch of applied linguistics, is the study and interpretation of texts of all types and/or spoken language in regard to their linguistic and tonal style, where style is the particular variety of language used by different individuals and/or in different situations or settings. For example, the vernacular, or everyday language may be used among casual friends, whereas more formal language, with respect to grammar, pronunciation or accent, and lexicon or choice of words, is often used in a cover letter and resume and while speaking during a job interview.</p>
10.	CORE VIII - NEW LITERATURES IN ENGLISH	<p>The New Literatures in English are not that new altogether. They have emerged from processes of nation that transformed large tracts of the world from the late fifteenth century onwards, and some of them can trace their beginnings to the nineteenth or even late eighteenth century, when English, Irish or Welsh settlers in the Caribbean, Canada or South Africa first began to create an ‘overseas literature,’ and enslaved or colonized people first began to reflect on their current situation and future perspectives using the medium of what was then ‘the colonizer’s tongue.’ Other literatures in English are indeed sometimes startlingly so: as distinct literary fields, West African literature in English emerged in the 1960s, East African literature in English in the 1960s, indigenous writing in Canada, Australia and New Zealand in the 1970s, and Black and Asian British Literature in the 1980s.</p>
11.	CORE IX – LITERARY CRITICISM	<p>Literary criticism (or literary studies) is the study, evaluation, and interpretation of literature. Modern literary criticism is often influenced by literary theory, which is the philosophical discussion of literature’s goals and methods. Though the two activities are closely related, literary critics are not always, and have not always been, theorists.</p>

12.	CORE X – COMPARATIVE LITERATURE AND TRANSLATION	<p>Comparative Literature is dedicated to the examination of literature and other texts from an international perspective; an understanding of the processes and theories of translation is in many ways at its very heart. Literature, art, culture, and ideas do not develop in isolation but draw upon, for example, other works of art, historical movements, political views, religious beliefs, and cultural concepts from near and far. The study of Comparative Literature explores this process of cross-cultural and cross-disciplinary translation as well as the interlingual translation that makes such examinations possible. While Comparative Literature encourages the study of texts in their original languages, most researchers and students of Comparative Literature rely upon translated texts for at least some portion of their scholarly inquiry. Comparative Literature examines translation as an interpretive act central to the history and practice of literary study.</p>
13.	CORE XI – WOMEN'S WRITING	<p>The academic discipline of Women's Writing as a discrete area of literary studies is based on the notion that the experience of women, historically, has been shaped by their gender, and so women writers by definition are a group worthy of separate study: "Their texts emerge from and intervene in conditions usually very different from those which produced most writing by men." It is not a question of the subject matter or political stance of a particular author; but of her gender, <i>i.e.</i> her position as a woman within the literary world. Women's writing, as a discrete area of literary studies and practice, is recognized explicitly by the numbers of dedicated journals, organizations, awards, and conferences which focus mainly or exclusively on texts produced by women</p>
14.	ELECTIVE III – THE ENGLISH LANGUAGE	<p>English is a West Germanic language that was first spoken in early medieval England and is now a global lingua franca Named after the Angles, one of the Germanic tribes that migrated to England, it ultimately derives its name from the Anglia peninsula in the Baltic Sea. It is closely related to the Frisian languages, but its vocabulary has been significantly influenced by other Germanic languages, particularly Norse (a North Germanic language), as well as by Latin and French</p>

15. CORE –XII – RESEARCH METHODOLOG Y AND RHECTORIC	<p>To introduce the students to the basic concepts of researching, giving them a clear idea of the philosophy and meaning of research. To help the students to understand the differences between research in the sciences on the one hand and the humanities and literature on the other. To train the students in the art of thesis writing and the methods of analysing and organising the material and the mechanics of thesis.</p>
16. CORE –XIII – ENGLISH LANGUAGE TEACHING	<p>English Language Teaching is based on the idea that the goal of language acquisition is communicative competence. It adopts concepts, techniques and methods in classroom for recognizing and managing the communicative needs of the language learners. English language teaching may refer to either:</p> <ul style="list-style-type: none"> • Teaching English as a foreign language • Teaching English as a second language • Teaching English as a first language
17. CORE IV - JOURNALISM AND MASS COMMUNICATI ON	<ol style="list-style-type: none"> 1. Outcome: Students will be able to write a variety of mass media products, including news stories, press releases, and advertising copy, following accepted journalistic standards, including Associated Press style. 2. Outcome: Students will be able to create and design emerging media products, including blogs, digital audio, digital video, social media, digital photography, and multimedia. 3. Outcome: Students will understand and be able to apply relevant case law involving journalism, the First Amendment, and other mass media issues.

18.	CORE - PROJECT	<p>A project is an individual or collaborative enterprise that is carefully planned and researched about by students. A project is an activity to meet the creation of a unique product or service and thus activities that are undertaken to accomplish routine activities cannot be considered projects. It requires students to undertake their own fact-finding and analysis, either from library/internet research or from gathering data empirically. The written report that comes from the project is usually in the form of an dissertation, which will contain sections on the project's inception, analysis, findings and conclusions</p>
19.	ELECTIVE IV – ENGLISH LITERATURE FOR COMPETITIVE EXAMS	<p>The subject is designed and developed to suit the needs of those students who aim to appear for competitive exams with English Literature as their core subject. It will be useful for those who aspire towards acing competitive exams with literature in English as the main subject and/or want to pursue a higher academic degree, particularly as researchers, in India or abroad. The subject includes major works, historical developments, sub-disciplines, movements and trends in English, American and also World literature. The students will also gain an understanding about the key literary figures of all time and their contribution to their respective literary scene.</p>

AVS COLLEGE OF ARTS & SCIENCE
PG & RESEARCH DEPARTMENT OF MATHEMATICS
LEARNING OUTCOMES FOR SUBJECTS
M.Sc MATHS

PROGRAMME OUTCOMES (M.SC MATHEMATICS)

- Inculcate critical thinking to carry out scientific investigation objectively without being biased with preconceived notions.
- Equip the student with skills to analyze problems, formulate an hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.
- Prepare students for pursuing research or careers in industry in mathematical sciences and allied fields
- Imbibe effective scientific and/or technical communication in both oral and writing.
- Continue to acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethical issues in mathematical sciences.
- Create awareness to become an enlightened citizen with commitment to deliver one's responsibilities within the scope of bestowed rights and privileges.

COURSE OUTCOMES:

S. NO	COURSE	COURSE OUTCOMES
1	LINEAR ALGEBRA	i) Students completing this course will be able to compute the inverse of an invertible matrix. ii) Students completing this course will be able to find the null space of a matrix and represent it iii) As the span of independent vectors. iv) Students completing this course will be able to find the matrix representation of a linear transformation given bases of the relevant vector spaces

2	REAL ANALYSIS	<p>i) Prove a basic set theoretic statement</p> <p>ii) Prove an appropriate statement by induction</p> <p>iii) Define the limit of a function at a value, a limit of a sequence, and the cauchy criterion</p> <p>iv) State the bolzano-weierstrass theorem, rolle's theorem, extreme value theorem, and the mean value theorem</p>
3	MECHANICS	<p>i) Relative motion. Inertial and non inertial reference frames..</p> <p>ii) Study of the interaction of forces between solids in mechanical systems.</p> <p>iii) Centre of mass and inertia tensor of mechanical systems.</p> <p>IV) Application of the vector theorems of mechanics and interpretation of their results.</p>
4	ORDINARY DIFFERENTIAL EQUATIONS	<p>i) Classify ordinary differential equations according to order and linearity, as well as distinguish between initial value problems and boundary value problems.</p> <p>ii) Solve standard constant coefficient nonhomogeneous ordinary differential equations by the methods of undetermined coefficients.</p> <p>iii) Determine the solution of difference equation problems by z-transform methods and differential equation problems by laplace transform methods</p>
5	NUMERICAL ANALYSIS	<p>i) Solve an algebraic or transcendental equation using an appropriate numerical method</p> <p>ii) Approximate a function using an appropriate numerical method</p> <p>iii) Solve a differential equation using an appropriate numerical method</p> <p>iv) Evaluate a derivative at a value using an</p>

		appropriate numerical method
6	ALGEBRA	<p>i)Evaluate algebraic expressions. ii)Simplify algebraic expressions using the commutative, associative, and distributive properties. iii) Evaluate expressions containing more than one operational symbol. Evaluate algebraic expressions using the power and product rules.</p> <p>iv) Simplify and evaluate expressions using the quotient rule and negative exponents. v) Factor a polynomial by extracting the greatest common factor of terms.</p>
7	FLUID DYNAMICS	<p>Students graduating from Unified will be able to:</p> <ul style="list-style-type: none"> • Classify and exploit fluids based on the physical properties of a fluid • Compute correctly the kinematical properties of a fluid element • Apply correctly the conservation principles of mass, linear momentum, and energy to fluid flow systems with emphasis on aerodynamics • Demonstrate the ability to model correctly inviscid, steady fluid flow over simple aerodynamic profiles and shapes
8	COMPLEX ANALYSIS	<ol style="list-style-type: none"> 1.Explain the fundamental concepts of complex analysis and their role in modern mathematics and applied contexts 2. Demonstrate accurate and efficient use of complex analysis techniques 3. Demonstrate capacity for mathematical reasoning through analyzing, proving and explaining concepts from complex analysis 4. Apply problem-solving using complex analysis techniques applied to diverse situations in physics, engineering and other mathematical contexts.
9	PARTIAL DIFFERENTIAL EQUATIONS	<p>i)Classify partial differential equations and transform into canonical form ii)Solve linear partial differential equations of both first and second order</p>

10	TOPOLOGY	<p>i)Can work with sets and functions, images and preimages, and you can distinguish between finite, countable, and uncountable sets.</p> <p>ii)Know how the topology on a space is determined by the collection of open sets, by the collection of closed sets, or by a basis of neighbourhoods at each point, and you know what it means for a function to be continuous.</p> <p>iii)Know the definition and basic properties of connected spaces, path connected spaces, compact spaces, and locally compact spaces</p>
11	MEASURE THEORY & INTEGRATION	<p>After completing this subject, students will understand the fundamentals of measure theory and be acquainted with the proofs of the fundamental theorems underlying the theory of integration. They will also have an understanding of how these underpin the use of mathematical concepts such as volume, area, and integration and they will develop a perspective on the broader impact of measure theory in ergodic theory and have the ability to pursue further studies in this and related areas.</p>
12	CALCULUS OF VARIATIONS & INTEGRAL EQUATIONS	<p>i)Give an account of the foundations of calculus of variations and of its applications in mathematics and physics</p> <p>ii)Describe the brachistochrone problem mathematically and solve it</p> <p>iii)Solve isoperimetric problems of standard type</p> <p>iv)Use the theory, methods and techniques of the course to solve problems;</p> <p>v)Present mathematical arguments to others</p>
13	PROGRAMMIN WITH C++	<p>i)Students should be able to: understand the basic components of an object-oriented program including methods and attributes, the distinction between classes and</p>

		<p>instances, the structures required to write basic algorithms</p> <p>ii)The components of simple text and graphics based interfaces, the relevance of the design process and basic object-oriented design notation, the applicability and effectiveness of various basic software testing techniques.</p>
14	FUNCTIONAL ANALYSIS	<p>1.Ability to use duality in various contexts and theoretical results from the course in concrete situations.</p> <p>2. Capacity to work with families of applications appearing in the course, particularly specific calculations needed in the context of baire category.</p> <p>3. Be able to produce examples and counterexamples illustrating the mathematical concepts presented in the course.</p> <p>4. Understand the statements and proofs of important theorems and be able to explain the key steps in proofs, sometimes with variation.</p>
15	PROBABILITY THEORY	<p>i)Utilize a comprehensive set of descriptive statistical methods, <i>using industry standard statistical software</i>, in order to organize, summarize, and display data in a meaningful way</p> <p>ii)Use probability theory and <i>industry standard statistical software</i> in order to evaluate the probability of real world events</p> <p>iii)Apply discrete and continuous probability distributions <i>using industry standard statistical software</i>, in order to evaluate the probability of real world events</p> <p>iv)Construct confidence interval estimates for population parameters, <i>using industry standard statistical software</i>, for single and multiple populations, based on sample data;</p>
16	GRAPH THEORY	<p>i)Know some important classes of graph theoretic problems;</p> <p>ii)Be able to formulate and prove central theorems about trees, matching,</p>

		<p>connectivity, colouring and planar graphs;</p> <p>iii) Be able to describe and apply some basic algorithms for graphs;</p> <p>iv) Be able to use graph theory as a modelling tool.</p>
--	--	---

AVS COLLEGE OF ARTS AND SCIENCE

PG & RESEARCH DEPARTMENT OF PHYSICS

Programme: M. Sc. Physics

Programme Outcomes

1. Apply the skill and knowledge in the design and development of electronic circuits to fulfill the needs of small scale electronic industry.
2. Demonstrate, solve and an understanding of major concepts in all disciplines of physics.
3. Solve the problem and also think methodically, independently and draw a logical conclusion.
4. Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of Physics experiments.
5. Create an awareness of the impact of Physics on the society, and development outside the scientific community.

Programme Specific Outcomes

1. Introduce advanced techniques and ideas required in developing area of Physics.
2. Enhance students' ability to develop mathematical models for physical systems.
3. Gain the knowledge of Physics through theory and practical's.
4. Understand and apply principles of physics for understanding the scientific phenomenon in classical and quantum physics.
5. Understand and apply statistical methods for describing the quantum and classical a particles phenomenon in various physical systems.
6. Develop research oriented skills.

AVS COLLEGE OF ARTS AND SCIENCE
PG & RESEARCH DEPARTMENT OF PHYSICS

Programme: M. Sc. Physics

Course outcomes

After completion of these courses students should be able to;

SEMESTER	SUBJECT	OUTCOME
I	Core-I Classical and Statistical Mechanics	1. This course develops concept in classical laws of Thermodynamics and their applications 2. To learn Postulates of statistical mechanics 3. To learn statistical interpretation of thermodynamics micro canonical, canonical and grand canonical ensembles 4. To study the methods of statistical mechanics are used to develop the Statistics for Bose-Einstein and Fermi-Dirac.
	Core-II Mathematical Physics	1. Know the Cartesian, spherical polar and cylindrical co-ordinate systems. 2. Study the Generating function for Legendre, Hermite polynomials.
	Core-III Quantum Mechanics I	1. Understand De-Broglie hypothesis and Uncertainty principle 2. Derive Schrödinger's time dependent and independent equations 3. Solve the problems using Schrödinger's steady state equation 4. Get knowledge of rigid rotator 5. Understand different operators in Quantum Mechanics
	Elective-I Energy Physics	1. To study solar photovoltaics. 2. Know photo thermal application of solar energy. 3. To study Renewable and Non renewable energy sources. 4. To understands wind and Bio energy.
II	Core-V Condensed Matter	1. To provide extended knowledge of

	Physics	principles and techniques of solid state physics 2. To provide an understanding of structure, thermal and electrical properties of matter
	Core-VI Electronics	1. Know the special purpose Diode. 2. To study the Transistor Amplifier. 3. To understand the FET, JFET, MOSFET. 4. To study the Operational Amplifier and their types. 5. To know the Timer IC- 555 and its classification. 6. To study the Regulated Power supply.
	Core-VII Microprocessors and Microcontroller	1. Study the Organization and internal architecture of the Intel 8085. 2. learn assembly language programming and arithmetic 3. Aware of Memory interfacing, and different Data transfer schemes, 4. Learn interfacing with peripheral I/O devices . 5. Learn common applications of microprocessors and microcontroller.
	Elective-II Materials Synthesis and Characterization	1. An idea about all types of crystal defects and dislocations 2. information about Phase diagrams and general diffusion theory in detail 3. A fair idea of plastic deformation and fracture of material from an engineering point of view 4. A comprehensive awareness of the most important engineering material of the century namely polymers 5. State of the art facts and techniques of the synthesis and characterization of nano materials
III	Core-IX Electromagnetic theory	1. Understand Mechanics of system of particles. 2. Know the Motion in Central Force Field. 3 Elastic and inelastic scattering.

	Core-X Computational Methods and Programming	<ol style="list-style-type: none"> 1. Write algorithm and flow chart for c-programming language. 2. To use of iterative, decision making and the jump statement. 3. Understand the concept of arrays and pointers. 4. Able to use the concept graphics in c language.
	Core-XI Quantum Mechanics II	<ol style="list-style-type: none"> 1. To study the application of Time-independent Perturbation Theory. 2. Know the application and validity of Born Approximation. 3. To study the Symmetry in Quantum Mechanics.
	Elective-III Nano Physics	<ol style="list-style-type: none"> 1. Learn about the background on Nanoscience 2. Understand the synthesis of nanomaterials and their application and the impact of nanomaterials on environment 3. Apply their learned knowledge to develop Nanomaterial's.
IV	Core-XIII Molecular Spectroscopy	<ol style="list-style-type: none"> 1. know about different atom model and will be able to differentiate different atomic systems, different coupling schemes and their interactions with magnetic and electric fields. 2. Have gained ability to apply the techniques of microwave and infrared spectroscopy to elucidate the structure of molecules 3. Be able to apply the principle of Raman spectroscopy and its applications in the different field of science & Technology. 4. To become familiar with different resonance spectroscopic techniques and its applications
	Core-XIV Nuclear and Particle Physics	<ol style="list-style-type: none"> 1. Know the properties of nucleus likes binding energy, magnetic dipole moment and electric quadruple moment 2. To understand the concept of

		<p>radioactivity and decays law</p> <p>3. To study achievement of Nuclear Models of Physics and its limitations</p> <p>4. To understand the basic concept of Particle Physics</p>
	Core-XV Communication Electronics	<p>1. Describe basic components of communication system and concept of modulation, its needs.</p> <p>2. Classify different types of AM (Analog Modulation) techniques, their principles.</p> <p>3. Demonstrate the different types of multiplexing in communication system.</p> <p>4. Analyze the noise characteristics of a communication system using different modulation scheme.</p>
	Elective-IV Optoelectronic devices	<p>1. Know the introduction to light and optics.</p> <p>2. To understand Light sources of different types, including lasers and Light Emitting Diodes (LEDs).</p> <p>3. To study Light modulation and detection methods.</p> <p>4. To understand fiberoptic systems including fiber optic communications.</p>

AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF PG COMPUTER SCIENCE
M.Sc COMPUTER SCIENCE
PROGRAMME OUTCOME

- To Develop the Post Graduates in Computer Science with strong knowledge of theoretical computer science subjects who can be employed in research and development units of industries and academic institutions.
- Provides technology-oriented students with the knowledge and ability to develop creative solutions. Develop skills to learn new technology.
- Apply computer science theory and software development concepts to construct
- Computing-based solutions. Design and develop computer programs/computer-based systems in the areas
- Related to algorithms, networking, web design, cloud computing, Artificial Intelligence, Mobile applications.

AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF PG COMPUTER SCIENCE
M.Sc COMPUTER SCIENCE
COURSE OUTCOME

- **DESIGN & ANALYSIS OF ALGORITHM**

To design efficient algorithms using various algorithm designing strategies

To analyze the problem and develop the algorithms related to these problems.

To classify the problem and apply the appropriate design strategy to develop algorithm.

To design algorithm in context of space and time complexity and apply asymptotic notation

- **ADVANCED OPERATING SYSTEMS**

To design and understand the following OS components: System calls, Schedulers, Memory management systems, Virtual Memory and Paging systems.

To evaluate, and compare OS components through instrumentation for performance analysis.

To analyze the various device and resource management techniques for timesharing and distributed systems To develop and analyze simple concurrent programs using transactional memory and message passing, and to understand the trade-offs and implementation decisions

- **ADVANCED COMPUTER ARCHITECTURE**

Understand different processor architectures and system-level design processes. Understand the components and operation of a memory hierarchy and the range of performance issues influencing its design. Develop systems programming skills in the content of computer system design and organization.

- **ADVANCED JAVA PROGRAMMING**

Objective of this course is to provide the ability to design console based, GUI based and web based applications. Students will also be able to understand integrated development environment to create, debug and run multi-tier and enterprise-level applications Introduction: Features, Java basics- identifiers, variables, data types, operators, control structures.

- **.NET PROGRAMMING**

Introduce to .Net IDE Component Framework. Programming concepts in .Net Framework. Creating website using ASP.Net Controls. Create user interactive web pages using ASP.Net. Create simple data binding applications using ADO.Net connectivity. Performing Database operations for Windows Form and web applications.

- **DATA MINING**

Understand Data Warehouse fundamentals, Data Mining Principles. Design data warehouse with dimensional modeling and apply OLAP operations. Identify appropriate data mining algorithms to solve real world problems. Compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining 5 Describe complex data types with respect to spatial and web mining. . Benefit the user experiences towards research and innovation.

- **NETWORK SECURITY AND CRYPTOGRAPHY**

To know about various encryption techniques to understand the concept of Public key cryptography. To study about message authentication and hash functions To impart knowledge on Network secure classify the symmetric encryption techniques, Illustrate various Public key cryptographic techniques. Evaluate the authentication and hash algorithms. Discuss authentication applications .Summarize the intrusion detection and its solutions to overcome the attacks.

- **EMBEDDED SYSTEM**

To have knowledge about the basic working of a microcontroller system and its programming in assembly language. To provide experience to integrate hardware and software for microcontroller applications systems. Course Outcomes. To acquire knowledge about microcontrollers embedded processors and their applications.

- **COMPILER DESIGN**

Compiler Design will teach students about fundamental concepts and techniques used for developing a simple language compiler. Focusing on both the theoretical and practical, we will use a new language to explore the lexical, syntactic and semantic structures of languages in general, and how to use these structures to implement a demonstrative compiler.

This will include the examination of intermediate code states, machine code optimization techniques and support for advanced language features. At the end of the course, students will understand different considerations and phases of compilation, the impact of language features upon the compilation process, and the practical fundamentals of how a compiler is implemented.

- **DIGITAL IMAGE PROCESSING**

- Develop any image processing application.
- To understand the rapid advances in Machine vision.
- Learn different techniques employed for the enhancement of images.
- Learn different causes for image degradation and overview of image restoration techniques.
- To understand the need for image compression and to learn the spatial and frequency domain techniques of image compression.
- Learn different feature extraction techniques for image analysis and recognition

AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF UG COMPUTER SCIENCE
PROGRAMME OUTCOME

- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
- An ability to identify, formulate, and develop solutions to computational challenges.
- An ability to design, implement, and evaluate a computational system to meet desired needs within realistic constraints.
- An ability to function effectively on teams to accomplish shared computing design, evaluation, or implementation goals.
- An understanding of professional, ethical, legal, security, and social issues and responsibilities for the computing profession.
- An ability to communicate and engage effectively with diverse stakeholders.
- An ability to analyze impacts of computing on individuals, organizations, and society.
- Recognition of the need for and ability to engage in continuing professional development.
- An ability to use appropriate techniques, skills, and tools necessary for computing practice.
- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computational systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
- An ability to apply design and development principles in the construction of software systems of varying complexity.

AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF UG COMPUTER SCIENCE
COURSE OUTCOME

- **Operating System**

Understand the basics of operating systems like kernel, shell, types and views of operating systems Describe the various CPU scheduling algorithms and remove deadlocks. Explain various memory management techniques and concept of thrashing Use disk management and disk scheduling algorithms for better utilization of external memory. Recognize file system interface, protection and security mechanisms. Explain the various features of distributed OS like UNIX, Linux, windows etc.

- **Computer Networks**

Understand computer network basics, network architecture, TCP/IP and OSI reference models. Identify and understand various techniques and modes of transmission Describe data link protocols, multi-channel access protocols and IEEE 802 standards for LAN Describe routing and congestion in network layer with routing algorithms and classify IPV4 addressing scheme Discuss the elements and protocols of transport layer Understand network security and define various protocols such as FTP, HTTP, Telnet, DNS

- **Microprocessor and Assembly Language Processing**

Understand the taxonomy of microprocessors and knowledge of contemporary microprocessors. Describe the architecture, bus structure and memory organization of 8085 as well as higher order microprocessors. Explore techniques for interfacing I/O devices to the microprocessor 8085 including several specific standard I/O devices such as 8251 and 8255. Demonstrate programming using the various addressing modes and instruction set of 8085 microprocessor Design structured, well commented, understandable assembly language programs to provide solutions to real world control

- **Relational Database Management System**

Describe DBMS architecture, physical and logical database designs, database modeling, relational, hierarchical and network models. b) Identify basic database storage structures and access techniques such as file organizations, indexing methods including B-tree, and hashing. c) Learn and apply structured query language (SQL) for database

definition and database manipulation. d) Demonstrate an understanding of normalization theory and apply such knowledge to the normalization of a database.

- **C**

Understanding a functional hierarchical code organization. Ability to define and manage data structures based on problem subject domain. Ability to work with textual information, characters and strings. Ability to work with arrays of complex objects.

- **Web Technologies**

At the end of this course, each student should be able to: Gain knowledge of client side scripting, validation of forms and AJAX programming. Have understanding of server side scripting with PHP language. Have understanding of what is XML and how to parse and use XML Data with Java.

- **Database Management System**

At the end of this course, each student should be able to: Demonstrate the basic elements of a relational database management system. Identify data models for relevant problems. Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data. Apply normalization for the development of application software's. Design and implement

- **Core Java**

At the end of this course, each student should be able to: List and use Object Oriented Programming concepts for problem solving. Write programs using Java collection API as well as the java standard class library. Solve the inter-disciplinary applications using the concept of inheritance. Apply JDBC to provide a program level interface for communicating with database using java programming.

- **Software Engineering**

At the end of this course, each student should be able to Adapt the basic software engineering methods and practices in their appropriate applications Distinguish the various software process models such as waterfall model, evolutionary models, etc. Compose the requirements document by understanding the software requirements Relate the software architectural styles to the suitable applications. Determine the need for, and an ability to engage in, life-long learning. Analyze, design and maintain software

- **C++**

Be able to understand the difference between object oriented programming And procedural oriented language and data types on C++.Be able to program using C++ features such as composition of objects, operator overloading, inheritance, polymorphism etc

- **PHP**

To understand the general concepts of **PHP** scripting language for the development of Internet websites. To understand the basic functions of My SQL database program.

To learn the relationship between the client side and the server side scripts.

To develop a final project using the learned techniques.

- **VP**

Express constants and arithmetic operations. Distinguish variable and data types. Students code **visual** programs by using **Visual Basic** work environment. Distinguish and compose events and methods.

- **DATA STURCTURE & ANALYSIS**

Understand and remember algorithms and its analysis procedure. Introduce the concept of data structures through ADT including List, Stack, and Queues. To design and implement various data structure algorithms. To introduce various techniques for representation of the data in the real world. To develop application using data structure algorithms. Compute the complexity of various algorithms.

- **MULTIMEDIA SYSYTEMS**

To learn and understand technical aspect of Multimedia Systems. To understand the standards available for different audio, video and text applications. To Design and develop various Multimedia Systems applicable in real time. To learn various multimedia authoring systems.To understand various networking aspects used for multimedia applications.To develop multimedia application and analyze the performance of the same.

AVS COLLEGE OF ARTS & SCIENCE
PG & RESEARCH DEPARTMENT OF CHEMISTRY
PROGRAMME OUTCOME

1. Students can able to analysis the organic molecule and its constituent to ensure its quality in various industries. At the end of this programme students can able to work in the research projects by government funded concerns and can be able to teach the chemistry in under graduate level.
2. To impart knowledge in advanced concepts and applications in various fields of Chemistry.
3. To provide wide choice of elective subjects with updated and new areas in various branches of Chemistry to meet the needs of all students.

COURSE OUTCOME

SEM-I

Core-I(organic Chemistry-I)	<ol style="list-style-type: none">1. To know the depth knowledge of stereochemistry and natural product and its application in day today activities.2. To learn about the formation, stability and structure of intermediates and the effect of structure on reactivity.3. To learn about the mechanism of aliphatic and aromatic nucleophilic substitution reactions and aromatic electrophilic substitution reactions.4. To learn about the structural elucidation of alkaloids flavones and isoflavones
Core-II(Inorganic Chemistry)	<ol style="list-style-type: none">1. To understand structure of inorganic polymers and complex compounds and cage compounds.2. To learn about the various theories of complexes, mode of coordination with various geometry.3. To study the recent development in polymeric materials of coordination complexes.
Core-III(Physical Chemistry)	<ol style="list-style-type: none">1. Enable the student to know about the thermodynamic parameters and its applications, and to understand quantum chemistry.2. To study in detail the basic concepts of classical

	<p>thermodynamics and chemical Kinetics</p> <p>3. To understand the principles of quantum chemistry and group theory</p>
Elective-I(Polymer Chemistry)	<p>1. To enable the student to learn about classification of polymer and methods of preparation and properties of commercial polymer.</p> <p>2. To study the basic concepts in polymer chemistry.</p> <p>3. To learn about the kinetics and types of co-ordination polymerization.</p> <p>4. To study the measurement of molecular weight and the properties of polymers.</p> <p>5. To study about the polymer processing and properties of commercial polymers.</p>

SEM – II

Core-IV(Organic chemistry-II)	<p>1. Students gain knowledge about elimination reaction, aromaticity, organic photochemistry, pericyclic reaction and various reagents in organic synthesis</p> <p>2. To learn the mechanism of Elimination reactions.</p> <p>3. To understand the basic concepts of aromaticity.</p> <p>4. To know the effects of light in organic reactions.</p> <p>5. To study the pericyclic reactions.</p> <p>6. To learn the uses of oxidation and reducing reagents in organic synthesis.</p>
Core-V (Physical Chemistry II)	<p>1. To know the depth knowledge about the kinetics of reaction, Statistical thermodynamics and group theory.</p> <p>2. To study in detail the basic concepts of statistical thermodynamics and chemical kinetics</p> <p>3. To understand the principles of quantum chemistry and group theory</p> <p>4. To impart knowledge on surface chemistry and catalysis</p>
Elective-II (Spectroscopy)	<p>1. To learn and interpret the organic molecular structures through various spectroscopic techniques, and its applications</p> <p>2. To understand the basic concepts of spectroscopic techniques and to solve the tructures from the spectra</p> <p>3. To study in detail about UV-VIS, IR, ESR, PAS and NMR spectroscopic techniques</p> <p>4. To develop problem solving skills from various type of spectra.</p>

Extra Disciplinary Course	Students acquire knowledge about the manufacture of
1. Industrial Chemistry	Cement, dyes, paints, fibers, plastics in their industry.
2. Agricultural Chemistry	Students gain knowledge on soil analysis and get awareness about fertilizers, pesticides and insecticides.
3. Medicinal Chemistry	Enable the students to know the structure of antibiotics, antiseptics, anesthetics and diabetics drugs.
4. Pharmaceutical Chemistry	Students gain the basic knowledge about functions of various drugs in our body
5. Dye Chemistry	To know the structure and coloring properties of dyes and textile effluent treatment processes.
6. Water Chemistry	To know the basic knowledge about water pollution, waste water treatment and treatments plants.
Core Practical-I Organic Chemistry-I	<ol style="list-style-type: none"> 1. To perform the qualitative analysis of a given organic mixture. 2. To carry out the preparation of organic compounds.
Core Practical-II Inorganic Chemistry-I	<ol style="list-style-type: none"> 1. To perform the semi micro qualitative analysis. 2. To estimate the metal ions by colorimetric methods. 3. To prepare inorganic complexes.
Core Practical-III Physical Chemistry-I	<ol style="list-style-type: none"> 1. To perform experiments in chemical kinetics, phase rule and chemical equilibrium. 2. To perform experiments in Conductivity measurements

SEM – III

Core IV (Organic Chemistry III)	<ol style="list-style-type: none"> 1. To acquire the depth knowledge in molecular rearrangement, oxidation-reduction reactions and its mechanism, learn the chemical constitution of steroids. 2. To learn the mechanism of addition to Carbon - Carbon and Carbon – Hetero atom multiple bonds. 3. To learn the mechanism of molecular rearrangements. 4. To study the mechanism of oxidation and reduction reactions. 5. To study the structural elucidation of steroids. 6. To study ORD, CD and mass spectrometry of organic
---------------------------------	--

	compounds.
Core VII (Inorganic Chemistry II)	<ol style="list-style-type: none"> 1. Students gain the knowledge about crystal and solid systems in chemical compounds and detailed study of nuclear chemistry. 2. To study about the X-ray crystal structure of the compounds 3. To learn about the analytical tools which are used in nuclear chemistry
Core VIII (Physical Chemistry III)	<ol style="list-style-type: none"> 1. Students know about electrochemistry and understand the function of batteries, learn about photochemistry and quantum chemistry. 2. To impart knowledge on electrochemistry, photochemistry, quantum chemistry, and spectroscopy 3. To study the concepts and principles of electrochemistry, photochemistry, quantum chemistry, and spectroscopy.
Elective-III (Experimental Methods in Chemistry)	<ol style="list-style-type: none"> 1. Students acquire the knowledge about working principle and instrumentation about various analytical tools. 2. To study in detail the fundamental aspects of various experimental and instrumental methods in chemistry 3. To understand the principles and instrumentation of destructive and nondestructive techniques 4. To understand the various techniques in Chromatography.

SEM – IV

Core XI (Inorganic Chemistry III)	<ol style="list-style-type: none"> 1. To gain the depth knowledge of structural aspects of organometallic compounds and its application in catalysis field. 2. To learn the detailed study of synthetic organometallic complexes owing to the preparation as well as their reactivity and application which is very useful in the modern era.
Elective IV (Nano & Green Chemistry)	<ol style="list-style-type: none"> 1. To understand the characterization of nanomaterials, carbon clusters and nanostructures, to understand the green concepts of organic reactions. 2. To understand the characterization of nanomaterials 3. To understand carbon clusters and nanostructures 4. To understand the green concepts of organic reactions
Core Practical-I	<ol style="list-style-type: none"> 1. To perform organic estimations

Organic Chemistry-I	2. To prepare organic compounds involving two stages.
Core Practical-II Inorganic Chemistry-I	1. To perform quantitative estimation of inorganic mixture. 2. To perform analysis of ores and alloys 3. To prepare inorganic complexes.
Core Practical-III Physical Chemistry-I	1. To perform experiments in chemical kinetics and chemical equilibrium. 2. To perform experiments in Conductivity measurements

ஏ.வி.எஸ் கலை மற்றும் அறிவியல் கல்லூரி, சேலம்.

தமிழ்த்துறை

B.A தமிழ்

I. (Programme Outcomes) - பாடத்திட்ட நோக்கம் :-

தமிழ் இலக்கிய இலக்கண வரலாறு, மொழி வரலாறு, தமிழகப் பண்பாட்டு வரலாறு ஆகிய பின்புலங்களைக் கற்பித்தல், தமிழ் இலக்கிய, இலக்கணங்களைக் கற்பித்தல்.

எழுத்து, சொல், பொருள், யாப்பு, அணி ஆகிய ஐந்தமிழ் இலக்கணங்களின் அடிப்படை நிலைகளைக் கற்பித்தல், சங்க காலம் முதல் இக்காலம் வரையிலான பல்வேறு கால கட்டங்களில் தோன்றிய பல்வேறு இலக்கியவகை மாதிரிகளைப் படிப்பித்தல் தவறின்றி எழுதப் பயிற்றுவித்தல்.

கவிதை, சிறுகதை, நாடகம், கட்டுரை போன்ற இலக்கிய வகைகளைப் புதியனவாகப் படைக்கும் ஆற்றலை வளர்த்தல், இலக்கிய இலக்கணங்களை அறிமுகப்படுத்துதல்.

தற்கால அறிவியல் வளர்ச்சியின் பயனைப் பெறும் வகையில் கணினி மற்றும் இணையம் தொடர்பான கல்வியை அறிமுகப்படுத்துதல்

II. Programme Specific Outcomes :-

1. மாணவர்களுக்கு எளிதாக பாடம் புரியும்படி PPT மூலம் வகுப்பெடுத்தல்.
2. பல செயல்முறை விளக்கங்கள் மூலம் கற்பித்தல்.

III. Course Outcomes :-

1. இலக்கணம் கற்றல் - பிழையின்றி தமிழ் பேச, எழுத பயன்
2. இலக்கியம் கற்றல் - நல்ல படைப்பாளராக உருவாகலாம்
3. இதழியல் - செய்தியாளராகலாம்
4. நூலகவியல் - நூலகராகலாம்
5. இலக்கிய வரலாறு - சமூக அரசியல் அறிவு பெறல்

ஏ.வி.எஸ் கலை மற்றும் அறிவியல் கல்லூரி, சேலம்.

தமிழ்த்துறை

B.A தமிழ்

I. Course Outcomes :-

பருவம் 1

1. முதன்மைப்பாடம் 1 - நன்னூல் (எழுத்து) – 17UTA01

நோக்கம் : தமிழின் ஐந்து இலக்கணங்களுள் முதலாவதான எழுத்திலக்கணத்தை அறிவுறுத்தல்.

2. முதன்மைப்பாடம் 2 - இக்கால இலக்கியங்கள் - 17UTA02

நோக்கம் : இக்கால தமிழ் இலக்கிய வகைமைகளின் மாதிரிகளை கற்பித்தல்.

3. சார்புப்பாடம் 1 - தமிழக வரலாறும் மக்களும் பண்பாடும் -17UTAA01

நோக்கம் : தமிழக வரலாற்றையும், மக்களின் பண்பாட்டையும் மாணவர்களுக்கு கற்பித்தல்.

பருவம் 2

முதன்மைப்பாடம் 3 - நன்னூல் சொல்லதிகாரம் - 17UTA03

நோக்கம் : நால்வகைச் சொற்களின் இலக்கணத்தைக் கற்பித்தல்.

விருப்பப்பாடம் 1 - கொங்கு நாட்டு வரலாறு - 17UTAE01

நோக்கம் : கொங்கு நாட்டு வரலாறு பற்றி அறிதல் - தமிழ் நாட்டு சரித்திரத்தில் கொங்கு நாடு முக்கிய இடம் வகித்ததை மாணவர்களுக்கு கற்பித்தல்.

சார்புப்பாடம் 2 - தமிழ் இலக்கிய வரலாறு -17UTAA02

நோக்கம் : தொன்மைக் காலம் முதல் இக்காலம் வரை தமிழில் தோன்றிய இலக்கிய நூல்கள் அனைத்தையும் வரலாற்று நோக்கில் கற்பித்தல்.

பருவம் 3

முதன்மைப்பாடம் தாள் 4 – நம்பியகப்பொருள் - 17UTA04

நோக்கம் : அகப்பொருள் இலக்கணத்தின் சிறப்புக்கூறுகளை மாணவர்களுக்கு கற்பித்தல்

சார்புப்பாடம் 3 - தமிழ்மொழி வரலாறு - 17UTAA03

நோக்கம் : பழங்காலம் முதல் இக்காலம் வரை தமிழ் ஒலி வடிவ, வரி வடிவ சொற்பொருள் மாற்றங்கள் அறிவித்தல்.

திறன்சார் விருப்பப்பாடம் 1 - நூலகவியல் -17UTAS01

நோக்கம் : நூலகவரலாறு, நூலகத்தின் அக ஒழுங்குமுறை, வகைப்படுத்துதல், பாதுகாத்தலின் அவசியத்தை மாணவர்களுக்கு கற்பித்தல்.

திறன் சார் விருப்பப்பாடம் 2 - மனித உரிமைகள் 17UTAS02

நோக்கம் : தனிமனித உரிமைகள் பற்றி மாணவர்களை அறியச் செய்தல்.

திறன் சார் விருப்பப்பாடம் 3 - இதழியல் - 17UTAS03

நோக்கம் : இலக்கியத்தோடு தொடர்புடைய இதழியல் கலையைப் பற்றி மாணவர்கள் அறியச்செய்தல்.

பருவம் 4

முதன்மைப்பாடம் 5 - புறப்பொருள் வெண்பாமாலை - 17UTA05

நோக்கம் : புறப்பொருள் பற்றிய இலக்கணங்களை மாணவர்களுக்குக் கற்பித்தல்.

சார்புப்பாடம் 4 - தமிழ் இலக்கண வரலாறு - 17UTAA04

நோக்கம் : தொன்றுதொட்டுத் தமிழில் தோன்றிய இலக்கண நூல்களின் வரலாற்றை மாணவர்களுக்கு கற்பித்தல்.

திறன்சார் விருப்பப்பாடம் 4 - சித்த மருத்துவம் - 17UTAS04

நோக்கம் : மறைந்து கொண்டிருக்கும் சித்த மருத்துவத்தை மாணவர்களை அறிந்து கொள்ளச் செய்தல்.

திறன்சார் விருப்பப்பாடம் 5 - மொழி பெயர்ப்பியல் - 17UTAS05

நோக்கம் : தமிழில் மொழிபெயர்ப்பு பற்றி அறிவித்தல் , மொழி பெயர்ப்பின் இன்றியமையாமையையும் அதன் சிறப்புகளையும் உணர்த்துதல்.

திறன்சார் விருப்பப்பாடம் 6 - தொல்லியல் - 17UTAS06

நோக்கம் : மறைந்து போன நாகரிகம் - அகழ்வாராய்ச்சி மூலம் புதைபொருள் கண்டுபிடிப்புகளை மாணவர்களுக்குக் கற்பித்தல்.

திறன்சார் விருப்பப்பாடம் - தொல்லியல் -17UTAS06

நோக்கம் : மறைந்து போன நாகரிகம் - அகழ்வாராய்ச்சி மூலம் புதைபொருள் கண்டுபிடிப்புகளை மாணவர்களுக்குக் கற்பித்தல்.

பருவம் 5

முதன்மைப்பாடம் 6 - யாப்பருங்கலக்காரிகை - 17UTA06

நோக்கம் : யாப்பிலக்கணம் கற்பித்தல்

முதன்மைப்பாடம் 7 - காப்பியங்கள் - 17UTA07

நோக்கம் : வெவ்வேறு மதம் சார்ந்த காப்பியங்களின் வண்ணம், வடிவம், கற்பனை, காலங்கள் ஆகிய கூறுகளைக் கற்பித்தல்

முதன்மைப்பாடம் 8 - சமயப்பாடல்கள் - 17UTA08

நோக்கம் : காலம் தோறும் பக்தி இலக்கியம் வளர்ந்துள்ள தன்மையைக் கற்பித்தல்.

முதன்மைப்பாடம் 9 - திராவிட மொழிகளின் ஒப்பாய்வியல் - 17UTA09

நோக்கம் : திராவிட மொழிக் குடும்பத்தின் தாய் தமிழே என்பதனை நிறுவுவதற்கான மொழியியல் ஒப்பாய்வு முறையைக் கற்பித்தல்.

விருப்பப்பாடம் 2 - கணினியும் இணையமும் - 17UTAE02

நோக்கம் : தற்கால அறிவியல் வளர்ச்சியின் பயனைப் பெறும் வகை.

சார்புப் பாடம் 5 - படைப்பிலக்கியம் - 17UTAA05

நோக்கம் : ஆறு பருவங்களில் பயின்ற தமிழ்ப் புலமையை மதிப்பிடல் படைப்பிலக்கியத் திறனை வளர்த்தல்.

பருவம் 6

முதன்மைப் பாடம் 10 - தண்டியலங்காரம் - 17UTA10

நோக்கம் : தமிழின் ஐந்தாம் இலக்கணமாகிய அணியிலக்கண வகைகளைக் கற்பித்தல்

முதன்மைப்பாடம் 11 - சங்க இலக்கியங்கள் - 17UTA11

நோக்கம் : சங்க நூல்களிலுள்ள அகம் புறம் பற்றிய பாடல்கள் மூலம் மக்களின் வழக்கங்களை அறிந்து கொள்ளுதல் நல்வாழ்வுக்குத் தேவையான அறங்களைச் சான்றோர்களின் வாக்குகளால் மாணவர்களுக்கு உணர்த்துதல்.

முதன்மைப்பாடம் 12 - சிற்றிலக்கியங்களும் அற இலக்கியங்களும் - 17UTA12

நோக்கம் : 1.தமிழில் உள்ள 96 வகைச் சிற்றிலக்கியங்களுள் செல்வாக்கு பெற்ற சில வகைகளின் மாதிரிகளைக் கற்பித்தல்.

2. வாழ்க்கைக்கு உகந்த அறக்கருத்துக்களை மாணவர்களுக்குக் கற்பித்தல்.

முதன்மைப்பாடம் 13 - இலக்கியத் திறனாய்வியல் - 17UTA13

நோக்கம் : இலக்கியம் பயில்வோர்க்கு திறனாய்வின் முக்கியத்துவத்தையும் அவற்றை மதிப்பிடுவதற்கான வழிமுறைகளையும் மாணவர்களுக்குக் கற்பித்தல்.

விருப்பப்பாடம் 3 - ஒப்பிலக்கியம் -17UTAE03

நோக்கம் : வேறுபட்ட படைப்பாளர்கள், இலக்கியங்களின் தனிச்சிறப்புகளை ஒப்பிட்டு ஆராயும் போக்கை மாணவர்களிடம் வளர்த்தல்.

சார்புப்பாடம் 6 - நாட்டுப்புறவியல் - 17UTAA06

நோக்கம் : அழிந்து வரும் நாட்டுப்புற இலக்கிய வகைகளுள் உள்ள இலக்கியத் தரங்களை மதிப்பிடுதலும் அவற்றை அழியாமல் பாதுகாத்தலும்.

திறன் சாரா விருப்பப்பாடம்

திறன் சாரா விருப்பப்பாடம் - சாலை பாதுகாப்பு விதிகள் - 17UTAS01

நோக்கம் : சாலை விதிகளை அறிந்து கடைப்பிடிக்க மாணவர்களுக்கு அறிவுறுத்தல்.

பொதுப்பாடம் : சுற்றுச்சூழலியல் 17UES01

நோக்கம் : சுற்றுச்சூழல் கல்வியைப் பற்றி அறிந்து கொள்ளுதல் மற்றும்
சுற்றுச்சூழல் மாசுபடுவதை தவிர்க்கும் வழிமுறைகளை கையாளுதல்.

விருப்பப்பாடம் - விளம்பரக்கலை 17UTANV02

நோக்கம் : மாணவர்களுக்கு விளம்பரத்துறையைப் பற்றி அறிந்து கொள்ளச் செய்தல்.

1. இலக்கணம் - பிழையில்லாமல் எழுதவும் பேசவும் பயன்படுத்தலாம்
2. இலக்கியம் கற்றல் - நல்ல படைப்பாளராக உருவாகலாம்
3. இதழியல் - செய்தியாளராகலாம்
4. நூலகவியல் - நூலகராகலாம்
5. இலக்கிய வரலாறு - சமூக அரசியல் அறிவு பெறல்

AVS COLLEGE OF ARTS AND SCIENCE

DEPARTMENT OF TEXTILE AND FASHION DESIGNING

PROGRAMME OUTCOMES

- 1.To transform young talent into true professionals in the area of textiles and fashion designing.
2. To offer conducive learning programme
3. To prepare the young minds to be professionally competent to face the global challenges of fashion industry
4. To mould each student with a holistic approach in the field of design
5. To motivate the students to acquire entrepreneurial skill and to become global fashion brand leaders

COURSE OUTCOMES

SEMESTER	TITLE OF COURSE	COURSE OUTCOME
I Semester	Core Practical-I Pattern Making & Grading Practical	To Acquaint The Students With The Importance Of Taking Body Measurements And Size Chart. To Gain Knowledge About Pattern Making And Grading. To Enhance Knowledge About Preparations Of Fabric, Pattern Layout And Fitting Styles Of Garments.
	Core Practical-II Basic Apparel Designing Practical	To Equip The Students With Basic Knowledge And Skills Required For Construction Of Various Garment Components.
	Allied-I Sewing Technology	To Acquaint The Students With The Types Of Sewing Machine , Their Application, Maintenance, Problems And Remedies To Understand The Functions Of Various Parts Of Sewing Machine And The Feeding Mechanisms To Impart Basic Knowledge About Methods Of Spreading, Marking, Cutting,

		Pressing And The Tools And Equipments Involved
Semester 2	Core –I Fibre To Yarn Science	To Study The Different Types Of Fibre, Their Manufacturing Process And Properties To Learn The Process Of Yarn Formation
	Core Practical–III Fibre To Yarn Science Practical	To Identify The Different Types Of Fibre To Learn The Testing Methods Of Yarns And Fibre.
	Allied Practical –I Basic Draping Practicals	To Gain Basic Skill In Draping To Learn Draping Techniques Of Different Components Of A Garments.
	Allied Practical –II Basic Illustration & Sketching– Practicals	To Learn And Convey The Principles That Relate To Drawing To Learn The Use Of Perspective And Demonstrate Knowledge Of Basic Human Proportion And Anatomy. To Illustrate The Various Garment Parts, Ornaments And Accessories
Semester 3	Core –Ii Fabric Science-I	To Learn The Elements Of Woven Design To Study The Different Types Weaves
	Core –III Clothing Care	To Encourage Students To Acquire Knowledge About Water, Soaps , Detergents And Finishers And Equipments Used In Laundry To Impart Necessary Information About The Various Type Of Fabric, Their Laundry Procedure And Stain Removal Techniques
	Allied –II Fashion Designing	To Study The Terms Related To Fashion Industry To Learn The Basics Of Fashion Designing

	Core Practical –IV Fabric Science Practical	<p>To Identify The Different Types Weaves</p> <p>To Analyse Fabric Particulars</p>
	Core Practical –V Children’s Apparel Practicals	To Familiarize And Impart Practical Training To The Students In Construction Of Children’s Garment.
	Allied Practical –III Fashion Designing Practicals	<p>To Apply Colour, Elements And Principles Of Design In Dress Designing</p> <p>To Design Dresses For Figure Irregularities.</p>
Semester 4	Core Iv -Non Woven & Technical Textiles	To Learn The Most Rapid Growing Sectors Of The Textile Market Of Non Woven
	Core –V Textile Processing	<p>To Learn The Different Processing Methods</p> <p>To Study The Different Processing Machines</p>
	Allied –III Fashion Clothing And Psychology	<p>To Study The Fashion Evolution And Fashion Changes</p> <p>To Learn The Elements And Application Of Visual Merchandising</p>
	Core Practical -VI Women’s Apparel Practicals	<p>To Design Different Women Garments.</p> <p>To Learn The Process Of Drafting And Construction Of Women’s Garments.</p>
	Core Practical -VII Textile Processing Practicals	<p>To Learn The Different Types Of Processing</p> <p>To Study The Process Of Dyeing For Different Types Of Dyes</p>
	SBEC-I Embroidery Practical	<p>To Learn The Different Types Of Hand Embroidery</p> <p>To Prepare Embroidery Samples</p>
Semester 5	Core -Vi Computer & Textile In Garment Design	To Understand About Computers Its Parts And Functions And Its Role In Garment Industry.

		To Learn About The Applications Of Computer In Planning, Designing And Manufacturing In Garment Industry.
	Core -VII Textile Finishing	To Understand About Textile Its Production Sequence And Finishes Applied To It To Accurse Knowledge About Classification Of Textile Finishes And Its Methods And Applications
	Core-VIII Textile Printing	To Understand About Printing And Dyeing Techniques For Textiles. To Learn Different Type Of Printing Techniques, Its History, Tools, Equipment And Machineries.
	Core Practical -VIII Computer&Textile In Garment Design Practicals	To Expose Learners To Corel Draw, Industrial Photoshop Illustrator To Create Different Designs In Cad Software By Applying Colour Harmony, Principles Of Design For Different Occasions To Prepare And Grade Patterns For Different Garment Using Cad
	Core-IX Textile Printing Practicals	To Understand About Printing And Dyeing Techniques For Textiles. To Learn Different Type Of Printing Techniques, Its History, Tools, Equipment And Machineries.
	Core Practical-X Men's Apparel Practicals	To Impart Practical Skill In Designing, Drafting And Garment Construction. To Creatively Design And Construct Different Styles Of Men Apparel
	MBEC-I Garmrnt Quality &Cost Control	To Learn The Concepts Of Garment Quality Control <input type="checkbox"/> <input type="checkbox"/> To Study The Management Systems
Semester 6	Core –Ix Fabric Science-Ii	To Learn The Elements Of Woven Design To Study The Different Types Knitting Weaves

	Core-X Organization Of Garment Unit	To Learn About Garment Unit Its Classifications, Types And History To Understand About Garment Technology &The Machineries.
	MBEC - II Fashion Visual Merchandising	To Learn How To Merchandizing
	SBEC-II Practical- Portfolio Presentation	To Make A Design Collection By Utilizing All Designing And Technical Skills To Create A Portfolio For Exhibiting The Design Collection In A Creative Manner.
	SBEC III Beauty Care Practicals	To Learn How To Care Skin
	Core Practical XI Accessories Making Practicals	To Create A Accessories Design Collection In A Creative Manner

PROGRAMME SPECIFIC OUTCOMES

1. Analysis and identification of various fabrics and its use for various purposes.
2. Knowledge of various dyeing and printing techniques.
3. Knowledge of weaves, embroideries and fashion illustration with latest software used in Fashion and Textile industry.
4. Successful handling of fashion shows/ textile exhibitions on their own.

AVS COLLEGE OF ARTS AND SCIENCE

DEPARTMENT OF UG CHEMISTRY

1. PROGRAMME OUTCOMES

PROGRAMME NAME: B.Sc CHEMISTRY

- Demonstrate knowledge
- Learned laboratory skills
- Capable of oral and written scientific communication
- Think critically and work independently
- Research knowledge.

2. PROGRAMME SPECIFIC OUTCOMES:

- Students will have a firm foundation in the fundamentals and application of current chemical and scientific theories including those in Analytical, Inorganic, Organic and Physical Chemistries.
- Students will be able to design and carry out scientific experiments as well as accurately record and analyze the results of such experiments.
- Students will be skilled in problem solving, critical thinking and analytical reasoning as applied to scientific problems.
- Students will be able to clearly communicate the results of scientific work in oral, written and electronic formats to both scientists and the public at large.
- Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.
- Students will be able to explain why chemistry is an integral activity for addressing social, economic and environmental problems.
- Students will be able to function as a member of an interdisciplinary problem solving team.

S.NO	SUBJECT	OUTCOMES
1	FOOD CHEMISTRY	<ul style="list-style-type: none"> • Communicate effectively with others in one-on-one, small group, and large group situations. • Prepare and deliver effective presentations of technical information to food science and nutrition professionals and to the general public. • Accurately interpret data and research literature to solve complex problems. • Critically evaluate information on food science and nutrition issues appearing in the popular press. • Conscientiously apply your profession's code of ethics in your work. • Demonstrate social and cultural competence relative to diversity and inclusion. • Analyze the environmental dimensions of issues facing professionals. • Facilitate and participate effectively in a team. • Plan and implement purposeful life-long learning activities with the aim of improving professional competence. • Demonstrate creativity in the discipline in ways that have practical benefits.
2	POLYMER CHEMISTRY	<ul style="list-style-type: none"> • . isolate the key design features of a product which relate directly to the material(s) used in its construction • indicate how the properties of polymeric materials can be exploited by a product designer • describe the role of rubber-toughening in improving the mechanical properties of polymers • identify the repeat units of particular polymers and specify the isomeric structures which can exist for those repeat units • estimate the number- and weight-average molecular masses of polymer samples given the degree of polymerisation and mass fraction of chains present.
3	INORGANIC CHEMISTRY	<ul style="list-style-type: none"> • the bonding fundamentals for both ionic and covalent compounds, including electronegativities, bond distances and bond energies using MO diagrams and thermodynamic data • predicting geometries of simple molecules • the fundamentals of the chemistry of the main group elements, and important real world applications of many of these species • the use of group theory to recognize and assign symmetry characteristics to molecules and objects, and to predict the appearance of a molecule's vibrational spectra as a function of symmetry • the bonding models, structures, reactivities, and applications of coordination complexes, boron hydrides, metal carbonyls, and organometallics

4	<p style="text-align: center;">ORGANIC CHEMISTRY</p>	<ul style="list-style-type: none"> • the hybridization and geometry of atoms and the three-dimensional structure of organic molecules • the reactivity and stability of an organic molecule based on structure, including conformation and stereochemistry • an understanding of nucleophiles, electrophiles, electronegativity, and resonance • the prediction of mechanisms for organic reactions • how to use their understanding of organic mechanisms to predict the outcome of reactions • how to design syntheses of organic molecules • how to determine the structure of organic molecules using IR and NMR spectroscopic techniques
5	<p style="text-align: center;">PHYSICAL CHEMISTRY</p>	<ul style="list-style-type: none"> • concepts in thermodynamics, different thermodynamic quantities such as heat and work and how they are measured, related or transformed from one to the other • states of matter and how they depend on temperature and pressure as well as how they co-exist in phase equilibria • chemical equilibrium and its relationship with thermodynamic quantities • the transport of ions and thermodynamic functions with applications to electron transfer in biological systems • chemical kinetics; how reaction rates are measured and represented in rate laws, and applications of chemical kinetics in studying enzyme mechanisms • basic quantum chemistry and atomic structures of atoms • chemical bonding from the valence bond model and molecular orbital theory • computational methods for studying biochemical processes • methods for determining size, shape, and 3D structure of bio-molecules • spectroscopic methods that are used to study biochemical processes
6	<p style="text-align: center;">SPECTROSCOPY</p>	<ul style="list-style-type: none"> • how molecular phenomena can be related to model problems • how to interpret spectra • the connection between common approximation methods and standard chemical frameworks (Born-Oppenheimer approximation, molecular orbitals, for example) • molecular-level critical thinking skills

<p>7</p> <p>AGRICULTURAL CHEMISTRY</p>	<ul style="list-style-type: none"> • Students will demonstrate the ability to analyze data and draw appropriate statistical conclusions. • Students will demonstrate the ability to communicate effectively both orally and in writing. • Students will demonstrate knowledge of the legal and ethical environment impacting agriculture organizations and exhibit an understanding and appreciation of the ethical implications of decisions. • Students will demonstrate an understanding of and appreciation for the importance of the impact of globalization and diversity in modern agriculture organizations. • Students will demonstrate an ability to engage in critical thinking by analyzing situations and constructing and selecting viable solutions to solve problems. • Students will demonstrate an ability to work effectively with others. • Students will understand and analyze the current events and issues that are occurring in agriculture and how they affect your future in agriculture. • Students will be able to recognize and examine the relationships between inputs and outputs in their agricultural field to make effective and profitable decisions. • Students will understand how all aspects of agriculture combine and are used by scientists, marketers, and producers. • Students will understand how employer characteristics and decision-making
<p>8</p> <p>DYE CHEMISTRY</p>	<ul style="list-style-type: none"> • Learn the basic properties of light and how light is perceived as color • Learn the basics of color theoryLearn the basic molecular structure of a reactive dye molecule • Learn how an alkali catalyst works to help form a covalent bond between the dye & fiber • Use fiber reactive dyes to conduct a color mixing experiment & chemical reaction on a t-shirt with the-dye

9	ANALYTICAL CHEMISTRY	<ul style="list-style-type: none">• the principles and applications of modern chemical instrumentation, experimental design, and data analysis• the underlying chemical and physical of instrumental methods of analysis, including electronic and vibrational spectroscopy, reaction kinetics, chemical separation methods, and mass spectrometry• formulating and solving problems in the laboratory• how to work with others as part of a team to solve scientific problems• how to communicate scientific information clearly and accurately, both in oral and in written forms• the composition of written laboratory reports that summarize experimental procedures and the accurate present and interpret data• the use of proper grammar and formal scientific style in written reporting of laboratory results• statistical methods of data analysis including error distributions, hypothesis testing, confidence intervals, the method of maximum likelihood or least-squares analysis• plotting data in two and three dimensions for effective presentations in written reports
---	-------------------------	---

AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF ENGLISH U.G

1. PROGRAMME OUTCOMES

PROGRAMME NAME: B. A. ENGLISH

The ability to analyze, interpret, and understand the complex interrelationships between authors, texts, and specific social, political, and historical contexts. Students will demonstrate the ability to think critically about the ways in which various aspects of identity, subject positions, and affiliations—including but not limited to race, gender, class, and sexuality—inform the development of national, transnational, and international literary traditions.

2. PROGRAMME SPECIFIC OUTCOMES:

Experience conducting research and, for students of creative writing, the production of new artistic work. It is a special disciplinary benefit of the English major that it provides students with a field for exercising skills of disciplined and independent inquiry that transfer to all walks of life. Research and writing, in different forms and resources—archives, libraries, collections, criticisms, histories, databases, and more—are therefore also at the core of the English major. Similarly, students who pursue the Creative Writing Option produce independent verbal and artistic works and assemble them into a senior portfolio.

Theory and Knowledge

1. Students will learn the theoretical foundations and research methods in advanced literary studies, and gain expertise in specific genres, periods, and topics in the field.
2. Students will demonstrate a reading knowledge of at least one foreign language.
3. Students will demonstrate a command of written academic English, including the abilities to a) organize and present material in a cogent fashion, b) formulate and defend original arguments, c) employ effectively the language of their discipline and d) write under time constraints.

OUTCOMES		
S.NO	SUBJECT	
1	FICTION	This Course is Read and finishes a variety of reading materials including beginning chapter books, read aloud with fluency, self-correct for meaning, and read silently for up to 30 minutes. Use technology to find information; follow written directions. Participate in small group literature discussions, connect own experiences with facts, characters and situations in stories; and identify chapter title and table of contents. Build vocabulary by reading; use sentences to determine meaning and point of view. Read medium level chapter books; read aloud with expression and read independently for up to 40 minutes. Identify different genres (realistic fiction, historical fiction, nonfiction, etc)
2	GRAMMAR AND USAGE	Write a paragraph with a topic sentence, support, and concluding sentence; produce coherent and unified paragraphs with adequate support and detail, write an effective introduction and conclusion; write a thesis statement that addresses the writing prompt; produce a well-organized academic essay; produce appropriate vocabulary and correct word forms; use a variety of accurate sentence structures; produce accurate grammatical structures; and demonstrate control of mechanics
3	ALLIED-I SOCIAL HISTORY OF ENGLAND	Students should be familiar with representative literary and cultural texts within a significant number of historical, geographical, and cultural contexts. Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres. Students should be able to identify, analyze, interpret and describe the critical ideas, values, and themes that appear in literary and cultural texts and understand the way these ideas, values, and themes inform and impact culture and society, both now and in the past. Students should be able to write analytically in a variety of formats, including essays, research papers, reflective writing, and critical reviews of secondary sources. Students should be able to ethically gather, understand, evaluate and synthesize information from a variety of written and electronic sources. Students should be proficient in oral communication and writing.
4	PROSE	Prose is a form of language which applies ordinary grammatical structure and natural flow of speech rather than rhythmic structure (as in traditional poetry). While there are critical debates on the construction of prose, its simplicity and loosely defined structure has led to its adoption for the majority of spoken dialogue, factual discourse as well as topical and fictional writing. It is commonly used, for example, in literature, newspapers, magazines, encyclopaedias, broadcasting, film, history, philosophy, law and many other forms of communication. The textbooks are written according to the structural approach, graded with each lesson illustrating on or two teaching items- vocabulary and structure. Reading skills are of two kinds. They are, (The Intensive Reading skill), (The Extensive Reading skill). Though only one or two textbooks are used to teach all language skills, generally the Intensive Reading skill is cultivated through the detailed textbook while the Extensive Reading skill is practiced through the Supplementary readers.

		As we are already aware of the fact that reading comprehension involves understanding the subject matter of the lesson including the important ideas in it, and the sequencing and relationship of these ideas to one another. It also involves understanding the meaning of new words and grammatical structures.
5	ELECTIVE – INDIAN WRITING IN ENGLISH	To introduce students to major movements and figures of Indian Literature in English through the study of selected literary texts. To create literary sensibility and emotional response to the literary texts and implant sense of appreciation of literary text. To expose students to the artistic and innovative use of language employed by the writers. To instill values and develop human concern in students through exposure to literary texts. To enhance literary and linguistic competence of students.
6	ALLIED- II HISTORY OF ENGLISH LITERATURE	To introduce students to major movements and figures of Indian Literature in English through the study of selected literary texts. To create literary sensibility and emotional response to the literary texts and implant sense of appreciation of literary text. To expose students to the artistic and innovative use of language employed by the writers. To instill values and develop human concern in students through exposure to literary texts. To enhance literary and linguistic competence of students.
7	POETRY	Analyzes different poems of various types of Lyric poetry. Analyzes the underlying meanings of the poem by using the elements of poetry. Applies the historical and social information to the sample poem. Compares the particular poem with other poems. Demonstrates the aspects of Lyric poetry in the sample poems. Demonstrates the figures of speech. Discusses the significance of the historical period on the poem by analyzing the effects of the major events in that period. Employs the biographical information on the sample poem. Explains the life and the significance of the poet of the poem to be analyzed. Identifies and explains the figures of speech. Identifies the literary terms. Lists and explains the figures of speech. Locates the particular poem in its historical and social context. Names the sound devices, meter, rhythm and rhyme. Questions the effect of the background of the poet on the poem. Recalls the features of persona/voice in poetry. Recalls the historical and social events of the different periods. Recognizes the elements of poetry. Recognizes the features of Lyric poetry. Relates the poem to the real life. Tells the features of different types of Lyric poetry. Tells the tone and theme in poetry. Uses the elements of poetry in sample works.

<p>8</p> <p>ALLIED-III LITERARY FORMS AND TERMS</p>	<p>Read a variety of texts critically and proficiently to demonstrate the comprehension, analysis, and interpretation of those texts; write a literary or expository text using the conventions of standard English as stylistically appropriate, while showing a nuanced use of language (producing such a text may include invention, work shopping, research, compiling bibliographies, drafting, peer responses, revising, and /or editing); Demonstrate knowledge and comprehension of major texts and traditions of language and literature written in English as well as their social, cultural, theoretical, and historical contexts; Analyze and interpret texts written in English, evaluating and assessing the results in written or oral arguments using appropriate support; and design and create texts for a variety of purposes and audiences, evaluating and assessing the effectiveness and meaning of such texts.</p>
<p>9</p> <p>PHONETICS AND TRANSCRIPTION</p> <p>SBEC</p>	<p>Successfully use the International Phonetic Alphabet perform sophisticated phonetic and phonemic transcription tasks demonstrate a thorough understanding of speech articulation classify speech sounds using conventions of the IPA demonstrate mastery of phonemic analysis show how languages and dialects differ in both their phoneme inventories and the pronunciation of their phonemes conduct analyses that require an understanding of co articulation. Understand what Distinctive Features are and be able to use them in the analysis of phonemes and their pronunciation demonstrate knowledge of the structure of syllables and how phonotactic constraints result in different sets of legal syllables for different languages have a basic understanding of the phonology of intonation.</p>
<p>10</p> <p>BASIC JOURNALISM</p> <p>SBEC</p>	<p>Students will be able to make effective oral presentations on a variety of topics in public settings.</p> <p>Students will be able to apply basic and advanced human communication theories and models to academic and professional situations.</p> <p>Students will be able to make effective business and professional presentations to internal and external audiences.</p> <p>Students will be able to write a variety of mass media products, including news stories, press releases, and advertising copy, following accepted journalistic standards, including Associated Press style.</p> <p>Students will be able to create and design emerging media products, including blogs, digital audio, digital video, social media, digital photography, and multimedia.</p>

		Students will understand and be able to apply relevant case law involving journalism, the First Amendment, and other mass media issues.
11	SBEC PERSONALITY DEVELOPMENT	<p>Personality is nothing but the aggregate conglomeration of memories and incidents in an individual's entire life span. Environmental factors, family background, financial conditions, genetic factors, situations and circumstances also contribute to an individual's personality.</p> <p>How an individual behaves depends on his family background, upbringing, social status and so on. An individual with a troubled childhood would not open up easily. He/she would always hesitate to open his heart in front of others. Some kind of fear would always be there within him. An individual who never had any major problems in life would be an extrovert and would never have issues interacting and socializing with others. You really can't blame an individual for not being an extrovert. It is essential to check his/her background or past life. It is quite possible that as a child, he was not allowed to go out of his home, play and freak out with friends. These individuals start believing that their home is their only world and they are not safe outside. Such a mindset soon becomes their personality</p> <ul style="list-style-type: none"> • has advanced knowledge about applied linguistics and insight into variation in language, particularly in the language(s) chosen for in-depth study • has thorough awareness and understanding of multilingualism • has in-depth knowledge of selected areas of linguistics such as corpus linguistics, contrastive analysis, language variation, language development, language learning • has advanced knowledge of linguistic theory and research methods in general and corpus approaches in particular • can apply the knowledge gained of the selected areas of linguistics in other academic contexts • can analyse academic problems on the basis of the history, traditions, distinctive character and place of applied linguistics in a multilingual society
12	ALLIED-IV LANGUAGE AND LINGUISTICS	
13	SBEC PRESENTATION SKILLS	Delivering an effective presentation can be the differentiator that provides the competitive edge for you. High impact presentations are well remembered. This program attempts to demystify the stress and nerves surrounding a presentation. The intent is to provide a structured methodology for participants to prepare and deliver an effective, high impact presentation that meets the objectives and brings results

<p>14</p> <p>SBEC CREATIVE WRITING</p>	<ul style="list-style-type: none"> • Develop and hone skills in creating, editing and revising in the student's primary genre. • Demonstrate ability to read and respond thoughtfully and critically in both oral and written form to other student's work. • Demonstrate knowledge of how to perform in a workshop situation. • Recognize and write within the genres of nature, environmental or travel writing. • Write and publically present (orally) a polished creative manuscript of marketable quality. • Cultivate a professional identity in terms of self-presentation in both written and oral forms to include reading their work aloud at public venues, interviewing other writers, attending outside readings, writing book reviews and organizing literary events.
<p>15</p> <p>COMMUNICATION FOR PLACEMENT SBEC</p>	<p>Learning outcomes are descriptions of the changes that have taken place in the individual as a result of going through a learning process. The University recognizes that some learning outcomes may be acquired as a result of experiences and/or training other than in the traditional classroom/lecture situation i.e. through a placement. In order to complete your Placement Request Form you must describe your intended learning in terms of outcomes.</p> <p>Subject based outcomes; Knowledge and comprehension, the ability to apply knowledge (relevant to your course) in different situations and the processing skills acquired through the application and synthesis of knowledge. Personal outcomes; 0 Including interpersonal skills such as teamwork, leadership and negotiation, and interpersonal qualities like motivation, initiative and critical self-reflection.</p>
<p>16</p> <p>POST COLONIAL LITERATURE</p>	<p>It discusses literary texts written by British authors during the period of colonial and imperialist expansion. The course focuses on texts written by authors who live in a country that was colonized, and who writes in English. The course is text-oriented, but matters of history and context are also considered as essential. The course includes a presentation and discussion of literary (postcolonial) theory. Overall, the literary texts under consideration are seen as a cultural meeting-point of male and female characters of different races and classes. Can discuss, and analyze colonial and postcolonial texts know how race, class, gender, history, and identity are presented and problematical in the literary texts. Have an understanding of the relationship between Great Britain (and implicitly the West) and nations that were once colonized</p>
<p>17</p> <p>ENGLISH FOR COMPETITIVE EXAMINATIONS</p>	<p>The course aims to help participants develop their English language skills, particularly those planning to appear for competitive exams that test their English language abilities. During a span of 30 hours, students will be exposed to material that facilitates aspects of grammar, writing and vocabulary.</p>

<p>18</p> <p>WOMEN'S WRITING IN ENGLISH</p>	<p>Humans are linguistic animals. Language is the most fundamental and pervasive tool we have for interpreting our world and communicating with others as we act in and attempt to transform that world. Whether they pursue an emphasis in literature or writing, English majors gain a deeper understanding of the resources of the written word. Both literature and writing courses help students explore how writers use the creative resources of language-in fiction, poetry, nonfiction prose, and drama-to explore the entire range of human experience. English courses help students build skills of analytical and interpretive argument; become careful and critical readers; practice writing-in a variety of genres-as a process of intellectual inquiry and creative expression; and ultimately to become more effective thinkers and communicators who are well-equipped for a variety of careers in our information-intensive society.</p>
<p>19</p> <p>GRAMMAR AND SEMANTICS</p>	<p>To acquaint students with the concerns of the linguistics sub disciplines of semantics and pragmatics and pragmatics. To provide students with an opportunity to explore theories of meaning and pragmatic aspects of speech acts theory, presuppositions, information structuring, and conversation analysis, among others. To provide students with the tools with which to study semantics and pragmatics. An appreciation of the meaning of meaning and of the notion of pragmatics on the one hand and of the interface between semantics and pragmatics on the other. Tools with which to study semantics and pragmatics. An awareness of the relationship between grammar and semantics on the one hand and the role of meaning in grammar on the other.</p>
<p>20</p> <p>TWENTIETH CENTURY</p>	<p>According to Richard Wright, "Literature is a struggle over the nature of reality." In this course, we will look at the way American literature from the last six decades struggles with traditional notions of culture, identity, and human existence. We will read important texts from the 50s through the present day in order to examine the way in which these novels, short stories, and poetry work to reshape their readers' conceptions of reality, and to reframe American culture in ways that are more expansive, open, and liberatory. have a sophisticated understanding of the relationship between literary texts and social structures; know the cultural, political, and stylistic protocols of beat poetry, the black arts movement, postmodernism, and second wave feminist literature; know how to read texts closely; Know how to read both formal and thematic aspects of texts in relationship to larger cultural and historical movements.</p>

<p>21</p> <p>SHAKESPEARE</p>	<p>Students will demonstrate, through class discussion and writing, their ability to identify the major genres of literature, to distinguish the features of each genre, and to explain the influence of genre on a given text. The genres shall include, but are not limited to: poetry (both narrative and lyric), epic, drama (tragedy, comedy, history and mixed genres such as dramatic romance), fiction (short and novel-length). Given a text, students will state its genre and identify the features that thus mark it, stating at least two ways in which the genre has shaped this particular text.</p>
<p>22</p> <p>ENGLISH LANGUAGE TEACHING</p>	<ul style="list-style-type: none"> • Encourage the use of strategies, such as contextualization of new vocabulary, use of previewing, skimming and scanning techniques, and knowledge of text organization and discourse markers, to aid the comprehension of written and spoken language. • Expand the learner’s use of grammatically correct and situationally and culturally appropriate language in speaking and writing for effective communication in a variety of interpersonal and academic situations. • Create awareness about learning styles and college resources, encourage the adoption of study skills, and increase competence in the use of technology so that learners may more effectively achieve academic goals.
<p>23</p> <p>AMERICAN LITERATURE</p>	<ol style="list-style-type: none"> 1. Knowledge of foundational texts of British and American literature 2. Understanding of the historical and cultural range of literature written in English 3. Understanding of the development of the English language as used in works of literature 4. Understanding of strategies of textual interpretation appropriate to different literary genres

		<p>5. Ability to conduct and use literary research, to the point of achieving:</p> <ul style="list-style-type: none"> * an overall thesis that pushes the argument beyond summary * accurate and sufficient evidence presented in a scholarly manner * proper disciplinary and inter-disciplinary research tools * clear and appropriate writing for a research paper <p>6. Ability to write clearly and effectively</p>
<p>24</p>	<p>COMMUNICATION SKILLS</p>	<ol style="list-style-type: none"> 1. Demonstrate critical and innovative thinking. 2. Display competence in oral, written, and visual communication. 3. Apply communication theories. 4. Show an understanding of opportunities in the field of communication. 5. Use current technology related to the communication field. 6. Respond effectively to cultural communication differences. 7. Communicate ethically. 8. Demonstrate positive group communication exchanges.

AVS COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF MATHEMATICS

PROGRAMME OUTCOMES (B.SC MATHEMATICS)

Formulates and develop mathematics arguments in a logical manner. Acquire good knowledge and understanding in advanced areas of mathematics and statistics chosen by the student from the given courses.

COURSE OUTCOMES:

S. NO	COURSE	COURSE OUTCOMES
1	CLASSICAL ALGEBRAIC	i) Present the relationships between abstract algebraic structures with familiar numbers systems such as the integers and real numbers. ii) Present concepts of and the relationships between operations satisfying various properties (e.g. commutative property).
2	DIFFERENTIAL CALCULUS	i) Differential calculus is sequel integral calculus. ii) Differential calculus also used in science such as physics, and to lesser extent in chemistry.
3	INTEGRAL CALCULUS	i) Integral calculus is sequel differential calculus. ii) Integral calculus also used in science such as physics, and to lesser extent in chemistry.
4	VECTOR ANALYSIS	The purpose of the course is to provide an understanding of the basic relations of vector analysis to demonstrate practical applications of vector analysis and to train the students in problem. Formalization and in methods of solution.
5	DIFFERENTIAL EQUATION	i) Solve separable, homogeneous, exact, and linear first-order differential equations with and without initial conditions. ii) Determine regions of the plane over which a given first-order differential Equation will have a unique solution.
6	LAPLACE TRANSFORM	i) Find the Laplace transform of a function using the definition. ii) Find the inverse Laplace function of a

		function. iii) Use the Translation Theorems to find Laplace transforms.
7	STATICS	i) To find the limit of function using limit laws. ii) Find infinite limit and limits at infinity.
8	MATHEMATICAL STATISTICS	The learning objective of the adaptation course “probability theory and mathematical statistics” is to provide students with essential tools in probability theory to understand the theory of statistics and their applications such as, i) Common univariate probability distributions and their meaning. ii) Multivariate distributions.
9	DYNAMICS	At the end of this course, students will be able to: i) List equations of motion for single-degree of freedom system. ii) Solve equations of motion for single-degree of freedom system under free vibration, harmonic excitations. iii) Solve equations of motion for single-degree of freedom system under arbitrary earthquake excitations by numerical method. iv) Analysis of linear systems under earthquake excitations.
10	REAL ANALYSIS	To determine if a function is continuous use the definition of continuity. Learn to evaluate definite and indefinite integrals use them in application: i) Evaluate definite integral using Riemann sum. ii) Approximate the value of definite integral using right endpoint and left endpoint approximation. iii) Evaluate a definite integral using the fundamental theorem of calculus. iv) Find the indefinite integral of elementary algebraic functions and trigonometric function. v) Compute volumes of revaluations using cross section, disks and cylindrical shells.
11	NUMERICAL ANALYSIS	i) To establish the limit of linear and non-linear quadratic function use formal definition. ii) Use the intermediate value theorem and Newton’s method to locate and

		approximate the zeros of a function.
12	COMPLEX ANALYSIS	<p>i) To understand the modulus of a Complex valued function and results regarding that</p> <p>ii) To Understand and develop manipulation skills in the use of Rouché's theorem.</p> <p>iii) To Understand certain theorems like Inverse Function theorem, Hardy's three circle theorem.</p> <p>iv) To understand and learn to use Argument Principle.</p> <p>v) To understand the principle of Analytic Continuation and the concerned results.</p>
13	OPERATION RESEARCH	Optimization problems with continuous differentiable function can be solved using the classical method of optimization.
14	GRAPH THEORY	<p>i) To introduce topics and techniques of discrete methods and combinatorial analysis.</p> <p>ii) To introduce a large variety of applications and, through some of them, the algorithmic approach to the solution of problems.</p> <p>iii) To develop mathematical maturity.</p> <p>iv) To present a survey of essential topics for computer science students who will encounter some of them again in more advanced courses.</p>
15	DISCRETE MATHEMATICS	<p>i) Simplify and evaluate basic logic statements including compound statements, implications, inverses, converses, and contrapositives using truth tables and the properties of logic.</p> <p>ii) Express a logic sentence in terms of predicates, quantifiers, and logical connectives</p> <p>iii) Apply the operations of sets and use Venn diagrams to solve applied problems; solve problems using the principle of inclusion-exclusion.</p>
16	TRIGONOMETRY AND ANALYTICAL GEOMETRY OF 3D	<p>i) solve quadratic equations by completing the square, by using the square root property, the quadratic formula, and factoring</p> <p>ii) solve problems that lead to quadratic equations</p> <p>iii) Demonstrate an understanding of complex numbers and perform fundamental operations within this system.</p> <p>iv) Demonstrate a basic understanding of a</p>

		function, its inverse, composition, and notation. v) Accurately identify and apply properties of logarithmic and exponential functions and their graphs.
--	--	---

AVS COLLEGE OF ARTS AND SCIENCE

DEPARTMENT OF PHYSICS

PROGRAMME OUTCOMES

Program Name: B.Sc PHYSICS

- ❖ To enhance the student's academic abilities, personal qualities and transferable skills this will give them an opportunity to develop as responsible citizens.
- ❖ To define the basic laws involved in Physics.
- ❖ To understand the concepts and significance of the various physical phenomena.
- ❖ To carry out experiments to understand the laws and concepts of Physics.
- ❖ To apply the theories learnt and the skills acquired to solve real time problems.
- ❖ To acquire a wide range of problem solving skills, both analytical and computational and to apply them.

AVS COLLEGE OF ARTS & SCIENCE

DEPARTMENT OF PHYSICS

COURSE OUTCOMES

COURSE NAME: B.Sc PHYSICS

SEMESTER	SUBJECT	OUTCOME
I	Core -Physics -I (Mechanics)	Students will be able to articulate and describe: 1 Relative motion. Inertial and non inertial reference frames. 2 Parameters defining the motion of mechanical systems and their degrees of freedom. 3 Study of the interaction of forces between solids in mechanical systems. 4 Centre of mass and inertia tensor of mechanical systems. 5 Application of the vector theorems of mechanics and interpretation of their results. 6 Newton's laws of motion and conservation principles. 7 Introduction to analytical mechanics as a systematic tool for problem solving.
	Allied Mathematics -I	Students will be able to: 1. Write an argument using logical notation and determine if the argument is or is not valid. 2. Demonstrate the ability to write and evaluate a proof or outline the basic structure of Theory of Equations.

		<p>3. Understand the basic principles of Matrices and operations in sets.</p> <p>4. Understand the Radius of Curvature, Partial Differential Equations and Integration.</p>
II	Core Physics -II (Thermal Physics)	<p>Students will have the knowledge and skills to:</p> <ol style="list-style-type: none"> 1. Identify and describe the statistical nature of concepts and laws in thermodynamics, in particular: entropy, temperature, chemical potential, Free energies, and partition functions. 2. Apply the concepts and laws of thermodynamics to solve problems in thermodynamic systems such as gases, heat engines and refrigerators etc. 3. Analyze phase equilibrium condition and identify types of phase transitions of physical systems.
	Allied Mathematics -II	<p>Students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the basic principles of Jacobian and Maxima & Minima, Second Order Differential Equations. 2. Understand the Laplace Transforms, Inverse Laplace Transforms.
	Skill based Elective Course -I (Space Science)	<p>Students will be able to</p> <ol style="list-style-type: none"> 1. Apply physics principles to the interpretation of a broad range of astrophysical observations 2. Explain the basic issues involved in present day astrophysical investigations. 3. Demonstrate an understanding of our present picture of the cosmos on a large scale. 4. Have Peripheral ideas about astronomy and astrophysics
III	Core Physics -III (Properties of matter and Sound)	<p>Students will be able to</p> <ol style="list-style-type: none"> 1. Learning the basics concepts of elasticity, surface tension, gravitation, viscosity and sound. 2. Understand the concepts of properties of matter and to recognize their applications in various real problems. 3. Describe the key evidence for the breakdown of the classical description of the properties of matter. Recall the principles and basic equations and apply them to unseen problems
	Allied Chemistry -I03	<p>Students will be able to</p> <ol style="list-style-type: none"> 1. Understand the fundamentals of inorganic, organic and physical chemistry. 2. Understand the concepts of Chemical Bonding and nuclear chemistry. 3. Understand the role of structure in the Aromatic compounds. 4. Recognize basic terms in Solutions & Chromatography.
	Skill based Elective Course -II (Programming in C language)	<p>Students will be able to</p> <ol style="list-style-type: none"> 1. Understand the fundamentals of C programming. 2. Understand the concepts of operators and arrays. 3. Understand the role of structure and pointers in the program.

		<p>4. Develop a greater understanding of the issues involved in programming language design and implementation</p> <p>5. Write C program for simple applications of real life using structures</p>
IV	Core -Physics -IV (Optics)	<p>Students will be able to:</p> <ol style="list-style-type: none"> 1. Understand the central concepts and basic formalisms of interference, diffraction, polarization and basics of spectroscopy. 2. Use of tools needed to formulate problems in optics and spectroscopy. 3. Gain Fundamental knowledge in lasers, holography and Raman effect.
	Allied Chemistry -II	<p>Students will be able to</p> <ol style="list-style-type: none"> 1. Understand the concept of inorganic, organic and physical chemistry. 2. Understand the concepts of Carbohydrates & Amino acids. 3. Understand the concepts of Pharmaceutical chemistry, photochemistry and electrochemistry.
V	Core -Physics -V (Electricity and Magnetism)	<p>The student is expected to:</p> <ol style="list-style-type: none"> 1. Recognize basic terms in electricity and magnetism. 2. Understand the laws of electrostatics and magneto statics. 3. Apply theorems to construct and solve electrical circuits. 4. Build up strong problem solving skills by effectively formulate a circuit problem into a mathematical problem using circuit laws and theorems
	Core -Physics -VI (Basic Electronics)	<p>The student is expected to</p> <ol style="list-style-type: none"> 1. have a basic knowledge of semiconductor physics 2. acquire knowledge about how a semiconductor diode rectifies an input ac signal 3. Learn how to construct a transistor amplifier and how its gain varies with frequency
	Core -Physics -Elective I(Solid State Physics)	<p>The student is expected to :</p> <ol style="list-style-type: none"> 1. Have a clear picture of crystal structures and a clear understanding about x-ray diffraction 2. Expected to gain knowledge of superconductivity, its underlying principles and its applications. 3. Become familiar with super conductor and insulator.
	Core -Physics -Elective II(Energy Physics)	<p>The student is only expected to develop:</p> <ol style="list-style-type: none"> 1. Qualitative ideas about Solar energy, Physical principle of conversion of solar energy into heat energy, solar energy harvesting devices like solar cells, solar cookers, solar greenhouses etc. 2. Gets an idea about basic principle of wind energy conversion and basic components of wind energy conversion systems. 3. Know about other non-conventional energy sources like Ocean Thermal Energy Resources, Wind energy and Chemical energy resources
	SBEC -III (Bio -	The student is expected to :

	Medical Instrumentation)	<ol style="list-style-type: none"> 1. Recognize the technical vocabulary associated with biomedical Instrumentation. 2. Understand the uses of various instruments in medicine. 3. Understand the canonical structure of biomedical instrumentation systems. 4. Understand the problem and the ability to identify the necessity of equipment to a specific problem.
	SBEC -IV (Digital Electronics)	<p>The student is expected to:</p> <ol style="list-style-type: none"> 1. Have a basic knowledge of semiconductor physics. 2. acquire knowledge about how a semiconductor diode rectifies an input ac signal 3. know about various number systems and their applications , flip flops and counters
VI	Core -Physics -VII (Atomic Physics)	<p>The student is expected to:</p> <ol style="list-style-type: none"> 1. Acquire knowledge of the fundamental physics underpinning atomic physics. 2. Understand the concepts and potential applications of atomic physics. 3. Analyse production and decay reactions for fundamental particles. 4. Expand and evaluate the theoretical predictions for nuclear reactions.
	Core -Physics -VIII (Nuclear Physics)	<p>The student is expected to:</p> <ol style="list-style-type: none"> 1. Gain a clear picture of nuclear composition and various nuclear models. 2. Have a deep knowledge about Radio activity, nuclear Fission and Nuclear Fusion, the relevance of nuclear transformation. 3. Understand the working of nuclear detectors and counters, realize the importance of Cosmic rays and its effects on earth 4. Become familiar with nuclear particles and different particle accelerators. Student is expected to know the working of different accelerators.
	Core -Physics -IX (Quantum Mechanics and Relativity)	<p>The student is expected to:</p> <ol style="list-style-type: none"> 1. To become familiar with Blackbody radiation, Photoelectric effect and Compton Effect and hence be aware how quantum theory emerged. 2. Have gained a clear knowledge about wave properties of particles, De Broglie waves and its implications on the uncertainty principle. 3. Have grasped the idea of Wave Mechanics and gain the concept of Eigen values, Eigen functions and learn the basic postulates of quantum mechanics. 4. To find solution to Schrödinger's equation for many systems such as particle in a box, Hydrogen Atom and familiarize with different quantum numbers. 5. To understand the fundamentals and concepts in the special theory of relativity
	Core -Physics -Elective	<p>The student is expected to:</p>

	III(Electronics and Communication)	<ol style="list-style-type: none"> 1. To have developed the idea of modulation and demodulation phenomena. 2. Understand about different block diagram and its applications. 3. Study about Basics communication Technology. 4. Realize the importance of different electronic communication systems.
	SBEC -V (Basics of electricity and Appliances)	<p>The student is expected to:</p> <ol style="list-style-type: none"> 1. Understand the fundamentals of e.m.f, potential difference, current, resistance and energy conversions from one form to another. 2. Understand the basics of magnetic circuits and Identify the relationship between current and magnetic fields with application to determination of inductance. 3. Analyze A. C. circuits, interpret relationship between voltage, current and power, examine concept of resonance, and analyze balanced three phase circuits. 4. Analyze and solve D. C. networks by applying various laws and theorems.
	SBEC -VI (Microprocessor and its applications)	<p>Students will be able to</p> <ol style="list-style-type: none"> 1. Basic ideas on microprocessor, memory and I/O devices. 2. Be familiar with the basic concepts of microprocessor architecture and interfacing. 3. To impart skills in the programming instruction sets of microprocessor. 4. Apply the programming instructions to perform simple programs using microprocessor

AVS COLLEGE OF ARTS AND SCIENCE, SALEM- 106

Department of Visual Communication

OUTCOME BASED EDUCATION

Program Educational Objectives:

The following are the broad objectives of the Department:

- To encourage innovation and creativity among the students.
- To apply the knowledge of Visual Communication in modern technologies.
- To develop the skills that are required for the media and entertainment sectors.

Program Outcomes (POs):

By the end of this PROGRAM, graduates will be able to:

- Define, describe, and discuss the major theories and concepts of Visual Communication.
- Generate ideas, proposals, solutions, or arguments independently and/or collaboratively in response to challenges posed, or as a self-directed activity in the media and entertainment sector.
- Plan, design and carry out projects addressing client requirements in the media and entertainment sector.

The Course Outcomes (COs):

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

1st year:

- to provide an understanding of how images are used imaginatively, to help them understand how images are created and to think imaginatively.

Program Specific Outcomes:

Skill set: students will become a layout artist, storyboard artist, interior designer, set designer or graphic designer

SUBJECT CODE	SUBJECTS	COURSE OUTCOMES
15UVC01	CORE - I: Introduction to Visual Communication	understanding and applying Visual Communication – Basic Orientation
15UVC01	CORE PRACTICAL - I: Drawing	Develop an understanding of the role of drawing in various disciplines, including visual art, applied arts, and science.

15UCSA01	ALLIED - I PAPER I: Basic of Computers	Students will demonstrate the ability to solve problems through computer
15UCSAP01	ALLIED LAB - I: MS Office & HTML	Students will demonstrate the ability to solve problems using Ms Office and Web application
15UVCS01	SBEC - I Photoshop	Work and manipulate images, Resize and Crop images. Work with basic selections. Create, edit, delete and manage Layers. Paint. Retouch photos. Correct Colors.
15UVC02	CORE - II : Graphic Communication	Have fundamental technical skills, knowledge, and abilities in graphic design . Demonstrate adherence to professional graphic design industry standards.
15UVCP01	CORE PRACTICAL - I: Drawing	Develop an understanding of the role of drawing in various disciplines, including visual art, applied arts, and science.
15UCSA02	ALLIED - I PAPER II: HTML & Web Designing	Students will demonstrate the ability to solve problems using Ms Office and Web application
15UCSAP01	ALLIED LAB - I: MS Office & HTML	Students will demonstrate the ability to solve problems using Ms Office and Web application
15UVCS02	SBEC - II: Coreldraw	Designed for graphic designers, fashion designers, textiles designers, print professionals, packaging firms, and aspiring designers.

2ND YEAR:

- To provide an overview of the media systems, functioning and trends at the global from a technical perspective so student understands the application of media in various sectors.
- to provide an overall view and enhance the computer and communication skills to cope with emerging Information and communication Technology.

Program Specific Outcomes:

Skill set: the students will become a Photographer, Graphic Designer, and Album Designer, Script Writer or an assistant program-producer

SUBJECT CODE	SUBJECTS	COURSE OUTCOMES
15UVC03	CORE - III : Photography	The objective of this photography course is to provide a basic understanding of the visual and technical skills necessary to pursue and appreciate photography as a Fine Art.
15UVCP02	CORE PRACTICAL - II: Photography	The objective of this photography course is to provide a basic understanding of the visual and technical skills necessary to pursue and appreciate photography as a Fine Art.
15UVCP03	CORE PRACTICAL - III: Script Writing	The purpose of the course is to learn about film and television screenplay structure, analyze dramatic strategies in film and television, learn and apply correct script form, and creatively engage in the various stages of original scriptwriting. The assignments will include the writing of scenes, a treatment and a half-hour script, with special emphasis on the steps leading toward creating a final screenplay.
15UVCA01	ALLIED - II PAPER I: Principles of Management	Management and analysis of basic management functions: planning, organizing, leading, directing, and controlling for establishing and accomplishing business objectives. Case studies are utilized. The scope of this study will also include aspects of the principles of management on individuals and organizations.
15UVCAP01	ALLIED LAB - II: Human Resources Management	After successfully completing this course, students will be able to: Develop the knowledge, skills and concepts needed to resolve actual human resource management problems or issues.
15UVC04	CORE - IV: Script Writing	The purpose of the course is to learn about film and television screenplay structure, analyze dramatic strategies in film and television, learn and apply correct script form, and creatively engage in the various

		stages of original scriptwriting. The assignments will include the writing of scenes, a treatment and a half-hour script, with special emphasis on the steps leading toward creating a final screenplay.
15UVCA02	ALLIED - II PAPER II: Human Resources Management	After successfully completing this course, students will be able to: Develop the knowledge, skills and concepts needed to resolve actual human resource management problems or issues.

3RD YEAR:

- To expose students to the techniques and tools of analysis for media studies based on the quantitative approaches to media research.
- To familiarise students with concepts and practices of Marketing, Advertising, Public Relations & strategies for an integrated approach to visual communication management.

Program Specific Outcomes:

Skill Set: The students will become an assistant program director, media manager, production manager, film production assistant,

SUBJECT CODE	SUBJECTS	COURSE OUTCOMES
15UVC05	CORE - V: Television Production	Demonstrate an elementary ability to coordinate (direct) a video production which involves giving commands to a crew (which includes camera persons, VTR, technical direction, floor manager, talent, lighting, audio, etc.).
15UVC06	CORE - VI: Animation	To familiarize the students with various approaches, methods and techniques of Animation Technology.
15UVCE01	CORE ELECTIVE: Advertising	advertising planning processes, determining advertising and promotional goals and objectives, control and evaluation of advertising and promotional programs, and regulatory issues. Students will develop a comprehensive advertising campaign for a real or imaginary product.

15UVCE02	CORE ELECTIVE: Radio Programme Production	To develop in the student the skills, techniques and art of radio news through sound and the spoken word. It is a "hands-on" course teaching the use of the microphone, recorder, the phone, satellite networks and the editing equipment used to create the short inserts used in normal studio news programs.
15UVCS03	SBEC - III: Adobe In Design	to create pages for books and documents. This includes digital publishing formats such as EPUB
15UVCS04	SBEC - IV: Freelance Journalism	Introduce you to the challenges of the constantly evolving world of journalism; Provide you with the basics of good journalistic writing; Help you develop the skills to think critically about the news.
15UVC07	CORE - VII: Multimedia Production	A primary objective of this workshop is to teach participants how to develop multimedia programs. Another objective is to demonstrate how still images, sound, and video can be digitized on the computer.
15UVC08	CORE - VIII: Visual Aesthetics	to impart the knowledge in the areas on Design history, Culture and art and important miles stones in the History of the world.
15UVCE03	CORE ELECTIVE: Media Law And Ethics	This course discusses the principles of media law as they apply to the work of media and communications professionals in a variety of fields. Understanding the current and evolving state of media law is a challenging task, but, we hope you will come to agree, worthwhile for anyone interested in such ideals as freedom of expression and the press.
15UVCP06	CORE PRACTICAL – VI: Film Appreciation	Enhance the participants understanding of cinema in all its dimensions including aesthetic, creative, communicative, industrial and commercial.
15UVCS05	SBEC - V: Web Publishing	Understand some of the tenets of electronic publishing theory on which the Web is based <ul style="list-style-type: none"> • Be able to create Web pages that are technically accurate, standards-

		oriented, future-proof and appropriate for purpose
15UVCS06	SBEC - VI: Broadcasting	Apply effective and collaborative team communication and management skills to complete the video process from pre-production script development through the production capture of quality video image and audio.

Program Outcomes

Department of History - B.A History

- ❖ Understand background of our religion, customs institutions, administration and so on.
- ❖ Understand the present existing social, political, religious and economic conditions of the people.
- ❖ Analyze relationship between the past and the present is lively presented in the history.
- ❖ Develop practical skills helpful in the study and understanding of historical events.
 - (a) Draw historical maps, charts, diagrams etc.
 - (b) Prepare historical models, tools etc.
- ❖ Develop interests in the study of history and activities relating to history.
 - Collect ancient arts, old coins and other historical materials;
 - Participate in historical drama and historical occasions;
 - Visit places of historical interests, archaeological sites, museums and archives;
 - Read historical documents, maps, charts etc.
 - Play active roles in activities of the historical organizations and associations;
 - Write articles on historical topics.
- ❖ The study of history helps to impart moral education.
- ❖ History installs the feeling of patriotism in the hearts of the pupils.

COURSE OUTCOMES - B.A HISTORY

- ❖ Produce written work that incorporates consideration of the relevant historiography along with the theory that informs it
- ❖ Construct original historical arguments based on primary source material research.
- ❖ Demonstrate a superior quality of writing both in terms of mechanics and in developing an argument effectively
- ❖ Develop an ability to convey verbally their thesis research and relevant historiography and theory.

S.NO	COURSE TITLE	OBJECTIVES
1.	HISTORY OF INDIA UPTO 600A.D.	<ul style="list-style-type: none"> ❖ To know about the History of India ❖ To understand the Indian culture and Civilization ❖ To know the Uniqueness of our Art and Architecture
2.	HISTORY OF INDIA UPTO 600A.D. TO 1320 A.D	<ul style="list-style-type: none"> ➤ To know about the History of India ➤ To understand the Indian culture and Civilization ➤ To know the Indian rulers' ability in worldwide trade contacts ➤ To know the contributions of our rulers to the Art and Architecture
3.	HISTORY OF INDIA 1320 A.D. TO 1707 A.D	<ul style="list-style-type: none"> ✓ To know about the medieval period of Indian history ✓ To understand the organisation and structure of Mughals ✓ To study the feature of Mughals architecture

4.	ELECTIVE I - INTELLECTUAL HISTORY OF INDIA	<ul style="list-style-type: none">  To know about our Great political leaders  To know about our social and religious thinkers and their thoughts.  To know about our women leaders
5.	HISTORY OF INDIA 1707 A.D. TO 1857 A.D.	<ul style="list-style-type: none"> ❖ To understand the causes for the disintegration of the Mughals ❖ To understand the reason for the success of the expansion of British rule ❖ To know the various policies of the British and the Indians reaction
6.	GENERAL KNOWLEDGE – INDIA	<ul style="list-style-type: none"> ➤ To know more about our country ➤ To make our students to aware of our natural resources ➤ To know about our scientific and Technological capability of our Nation
7.	INTERNATIONAL CURRENT AFFAIRS	<ul style="list-style-type: none">  To understand the International organizations  To know about the current social and economic progress  To know about the natural calamities
8.	HISTORY OF INDIA FROM 1858 A.D. TO 1947 A.D.	<ul style="list-style-type: none"> ✓ To know causes for the rise of nationalism in India ✓ To study the various phases of nationalism ✓ To understand the works of various leaders in the struggle

9.	CONTEMPORARY HISTORY OF INDIA FROM 1947 TO 2000 A.D.	<ol style="list-style-type: none"> 1. To know the consequences of partition 2. To study policies of various governments 3. To understand the impacts of new economic policies
10.	HISTORY OF TAMIL NADU UPTO 1565 A.D.	<ol style="list-style-type: none"> 1. To know about the History of Tamilnadu 2. To understand the Tamil culture and Civilization 3. To know the tamil rulers' ability in worldwide trade contacts 4. To know the administration and Irrigation methodology of Cholas 5. To know the contributions of tamil kings to the Art and Architecture

AVS COLLEGE OF ARTS AND SCIENCE

DEPARTMENT OF GEOLOGY

DETAIL OF PROGRAMME, SPECIFIC PROGRAMME, COURSE OUTCOME

DEPARTMENT OF GEOLOGY	
B.SC GEOLOGY	
PROGRAMME OUTCOME	Understand transform faults such as the San Andreas, their role as conservative plate boundaries, the earthquakes they produce, and our effort to predict earthquakes and mitigate their effects.
COURSE	outcome
Petrology	Study of rocks and origin formations and structures
Physical and dyanamic geology	Understand the geological origins of especially important natural hazards, including earthquakes, tsunamis, volcanic eruptions, landslides, and abrupt climate changes induced by earth cataclysms.

Geomorphology and Structural geology	Study about geomorphologic processes and their origin .the study structural features like fold fault and joints etc., comes under structural geology
Palaeontology	Study of past life and their life environment and brief study about fossils and their occurrence
Stratigraphy	Study of geologic time scale and the rock formation formed during that time period
Crystallography	Study of crystals their crystal lattices and their examples in minerals
Mineralogy	Study about minerals present in the earth and their origin
Economic geology	Study of economic minerals and their origin and occurrence. it's also deals with extraction of ores
Photogeology and remote sensing	Study of aerial photographs and their uses. In remote sensing study about satellites and their processes
Mining and engineering geology	Study about mines and their terms and dams, tunnels construction in engineering geology
Hydrogeology and Environmental geology	Study of groundwater and their properties and environmental facts and their rectification of environmental hazards
Gemology	Gemology or gemology is the science dealing with natural and artificial gemstone materials. It is considered a geo science and a branch of mineralogy. Some jewelers (and many non jewelers) are academically trained gemologists and are qualified to identify and evaluate gems.
Principles of surveying	Principles of Surveying. Surveying is the process of finding the relative position of various points on the surface of the earth by measuring distance among them and setting up a map to any reasonable scale
Granite exploration and exploitation	Mineral exploration Endeavour's to find mineral deposits, especially those with commercially viable concentrations of minerals or metals, for mining purposes
Oceanography	Oceanography covers a wide range of topics, from marine life and ecosystems to currents and waves, the movement of sediments, and seafloor geology.
Climatology	Climatology or climate science is the scientific study of climate, scientifically defined as weather conditions averaged over a period of time.

Geohazards	Earthquakes, floods, landslides, volcanoes, avalanches and tsunamis are typical examples of such events.
Mapping techniques in geology	Geological mapping is a multidisciplinary method that combines petrology, structural geology, geomorphology, paleontology, stratigraphy, sedimentology, etc.
Geochemistry and geophysics	Geophysics is the branch of experimental physics concerned with the earth, atmosphere, and hydrosphere.
Structural geology and surveying	Structural geology is the first stage to any regional geophysical and geochemical surveys aiming at identifying new mineralized provinces.
Sedimentary and metamorphic petrology	Metamorphic petrology. Metamorphism means change in form. In geology the term is used to refer to a solid-state recrystallization of earlier igneous, sedimentary, or metamorphic rocks.
Igneous petrology	Igneous petrology is the study of igneous rocks those that are formed from magma.
Physical geology and geodynamics	The large scale structure of the earth is caused by geodynamic processes which are explained using energetic, kinematic and dynamic descriptions.

AVS COLLEGE OF ARTS AND SCIENCE
Department of Geology

Attainment of programme outcomes, Programme specific outcomes and course outcomes

Formative assessment:

The following methods are used to improve the student's performance:

Individual Goal, Observations, Questioning, Discussion

Peer and Self Assessments, Practical Presentations, Visual presentations, Quizzes

Seminars, Conference, Workshops, Assignments, Debate, Industrial Visit.

Establishment of a classroom culture that encourages interaction among the students

Use of varied instruction methods to meet diverse student needs.

Use of varied approaches to assessing student understanding.

Feedback on student performance and adaptation of instruction to meet identified needs.

Active involvement of students in the learning process

B) Summative Assessments:

Summative assessments are provided at end of a unit to determine how much students have learned.

Summative assessments provide information for determining grades and giving students feedback on their performance. Summative assessments may come in the form of papers, homework problems, lab reports, projects, quizzes, and tests, and can include objective or subjective tasks.

Objective tasks have clear right and wrong answers, examples of which include mathematical solutions, multiple choice, true/false, and fill in the blank questions.

Subjective tasks are more open-ended, do not have obvious right and wrong answers, and must be evaluated by professionals who truly understand the material.

Criterion-referenced assessments are based on content-based expectations, while norm-referenced assessments compare students to others who have taken the same test.

Students pass criterion-referenced tests by obtaining a score in excess of a predetermined cutscore, while they pass norm-referenced tests by performing better than a given percentage of others who took the same test.

We are following these kind of methods to improve the passing percentage every year. Therefore we achieved the positive result from the students.

Note: Formative evaluation is typically conducted during the development or improvement of a program or course. **Summative evaluation** involves making judgments about the efficacy of a program or course at its conclusion.

**AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF COMMERCE**

Program Outcomes for B.Com

- Have exposure of complex commerce problems and find their solution
- Develop an understanding of various commerce functions such as finance, accounting, Financial analysis, project evaluation, and cost accounting
- Develop self-confidence and awareness of general issues prevailing in the society related to commerce
- After completing three years for Bachelors in Commerce (B.Com) program, students would gain a thorough grounding in the fundamentals of Commerce and Finance.
- The commerce and finance focused curriculum offers a number of specializations and practical exposures which would equip the student to face the modern-day challenges in commerce and business.
- The all-inclusive outlook of the course offer a number of values based and job oriented courses ensures that students are trained into up-to-date. In advanced accounting courses beyond the introductory level, affective development will also progress to the valuing and organization levels.

**AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF COMMERCE**

Courses outcome

S.NO	SUBJECT	COURSE OUTCOME
	I B.COM	
1	CORE I - Principles of Accountancy	To enable the students to acquire basic knowledge of accounting principles, concepts and conventions. To make the students to acquire the skill to prepare the trial balance and final accounts.
2	CORE II - Business Communication	To develop better written and oral business communication skills among the students and enable them to know the effective media of communication.
3	ALLIED I - Business Economics	At the end of the course students shall be able to understand the fundamental concept of economics and will be able to correlate these concepts to real life situation to markets in particular and the economy in general
4	CORE III - Financial Accounting	To enable the students to learn the basic concepts of Partnership Accounting and allied aspects of accounting.
5	CORE IV - Business Management	To make the students to get acquainted with the basic Principles of Management
6	ALLIED II - Indian Economy	To enable the students to have an understanding of the present economic situation of India.
	II B.COM	
7	CORE V- Business Law	To enable the students to have an understanding of the present economic situation of India.
8	CORE VI - Corporate Accounting I	To cultivate understanding of the various Trade Laws of Land with an expert knowledge of Indian Contract Act, Sale of Goods Act
9	CORE VII - Banking Theory Law & Practice	To provide knowledge relating to the procedure for opening bank accounts, features of cheque and lending principles of bank
10	ALLIED -III Business Statistical Methods	To promote the skill of applying statistical techniques in business.
11	SBEC - I Capital Market	To enlighten the students the role of capital markets in India. To create awareness about the stock market among the students.
12	CORE VIII - Company Law	To enlighten the students, The provisions of

		Companies Act.
13	CORE IX - Corporate Accounting II	To equip the students with accounting Methods formatted from inception to liquidation and to have knowledge about Amalgamation, Absorption and Reconstruction..
14	ALLIED IV - Business Statistical Decision Techniques	To expose the students on the application of mathematical techniques in business
15	SBEC - II Project Methodology	To provide basic knowledge about the project methodology. After the successful completion of the course the student will come to know how to carry out the project work
16	SBEC – III Tally Practical –II	Tally Package and its concepts. Enable to use package for wide range of Business Applications
	III B.COM	
17	CORE XI - Cost Accounting	To provide an in-depth knowledge on cost ascertainment.
18	CORE XII - Auditing	To gain a fair working knowledge of the importance of vouching and internal check in practice in various Organizations.
19	CORE XIV - Information Technology in Business	To provide an in-depth knowledge on Information Technology in business To enable the students to appreciate the utility of IT in industries.
20	CORE XIII - Income Tax Law and Practice I	To gain basic knowledge of the provisions of Income Tax Act under different heads of income. To acquire the ability to apply the knowledge of the provisions of laws to various situations in actual practice
21	CORE XV - Management Accounting	To develop an understanding of the conceptual frame work of management accounting. To acquaint the students, the Management Accounting Techniques that facilitates managerial decision making
22	CORE XVI - Entrepreneurial Development	To enable the students to learn the concept of Entrepreneurship. To instill ideas on identification, selection and preparation of projects and to have awareness on the institutions promoting entrepreneurship
23	CORE XVII - Income Tax Law and Practice II	To provide an in depth knowledge of the provisions of Income Tax Act. To enable the students to access the financial status of the organization and individual and filing of

		returns
23	CORE XVII - Commerce Practical	To provide practical knowledge to fill forms like insurance, bank, loan application, membership form, income tax return forms etc.,

AVS COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF BIOTECHNOLOGY
B.Sc Biotechnology

Programme Outcome, Course Outcome, Programme Specific Outcome

DEPARTMENT OF BIOTECHNOOOGY	
Programme Outcome	Biotechnology teaches about biological sciences with engineering Technologies that manipulate living organisms and biological systems to produce products that advance healthcare, medicine, agriculture, food, pharmaceuticals and environment control.
Programme Specific Outcome	A general course emphasizing distribution, morphology and physiology of microorganisms in addition to skills in aseptic procedures, isolation and identification. This course also includes sophomore level material covering immunology, virology, epidemiology and DNA technology. Recommended for all allied health students. Three hours lecture and four hours lab per week.
B.Sc BIOTECHNOLOGY	
Course	Outcomes
I Sem	
Cell Biology	Exhibit a knowledge base in genetics, cell and molecular biology, and anatomy and physiology, Demonstrate the knowledge of common and advanced laboratory practices in cell and molecular biology
Biochemistry I	This course presents the chemical reactions or metabolic functions in the living system and their regulations. To make the student to understood the concept of biochemical regulations and Basic Structure and metabolism of Biomolecules
II Sem	
Genetics	This course presents the way characters get transferred through generations and methods to analyze and modify them. To make the student to understood the concept of genes and their behavior
Biochemistry II	This course presents the chemical reactions or metabolic functions in the living system and their regulations. To make the student to understood the concept of biochemical regulations and Basic Structure and metabolism of Biomolecules.
Biophysics and Bioinstrumentation	Enable the student to get sufficient knowledge in principles and applications of bio instruments.
III Sem	
General Microbiology	This course presents the study of Micro organisms. To make the student to understood Micro organisms and their participation in day to day activities.
Development Biology	
IV Sem	
Molecular Biology	This course presents the genetics at molecular level. On successful completion of the subject the student should have understood the

	molecular aspects of biology.
V Sem	
Plant Biotechnology	This course presents the application of Plants in Biotechnology. To make the student to understand usage of Plant products and exploitation of them in Biotechnology. On successful completion of the subject, the student should have understood: Crop development, Callus culture, Biotechnological applications of plants
Immunology and Immunotechnology	This course presents the basic defense mechanism of animals. To make the student to understand the concept immunology. On successful completion of the subject the student should have understood: Immunity, Antigen, Antibody, Cells of immune system and their function and regulations
Genetic Engineering	The students will have knowledge of tools and strategies used in genetic engineering. Understanding of applications of recombinant DNA technology and genetic engineering. from academic and industrial perspective
Nanobiotechnology and Bioinformatics	This course presents the nano tech at molecular level. On successful completion of the subject the students should have understood the nanotechnology aspects of nano science and bioinformatics
VI Sem	
Animal Biotechnology	This course presents the application of animal Biotechnology. To make the student to understand usage of Animal products and exploitation of them in Biotechnology. On successful completion of the subject, culture, , Animal tissue culture, Animal products, production & improvement of them.
Proteomics and Genomics	On the completion of the course the student will be able to Infer the basic concepts of genomics, transcriptomics and proteomics. List and discuss the use of genomics and proteomics in human health. Suggest and outline solution to theoretical and experimental problems in Genomics and Proteomics fields.
Bioprocess & Enzymology Technology	This paper presents the basics of fermentation technology, media components as applied to lab scale, pilot scale and industrial scale upstream and down stream processing.
Pharmaceutical Biotechnology	This paper presents the basics of: of pharmaceutical industry, Drugs discovery, Development phases and Drug Manufacturing Process. Drugs and Cosmetics ACT and regulatory aspects.
Stem cell and Tissue Engineering	To give students a broad understanding of the key topics in tissue engineering. To provide students with an understanding of stem cells and animal/human cell culture processes, and strategies to regenerate or repair damaged tissues
Food Biotechnology	This course presents the basics of food production technology in food factory based. To make the students to understand the use and disadvantage of food production.

AVS College of Arts & Science
Department of Microbiology

Details of Programme, Specific Programme and Courses Outcomes
Courses outcome

Department of Microbiology	
B. Sc., MICROBIOLOGY	
Programme outcome	This programme could provide well trained skills for prediction of pathogenic potential of the micro organisms such as bacteria, virus and parasites that causes disease in human being. To helps to understanding the environmental importance of microbes and to exploit them for food production, biotechnological and industrial applications and also cover aspects of the biochemistry, physiology and genetics of microorganisms.
Programme Specific Outcome	The student can get following specific outcome such as predict virus, bacteria and parasite induced diseases, Job in food processing company, healthcare organizations, work as lab technician, Teacher, Medical representative and Government jobs etc.
Courses	Outcome
Fundamental microbiology	By this course students able to understand the microscopic organisms and how they interact with humans and the environment.
Microbial physiology	Through this courses students can comprehend physiological and morphological of microorganism which helps in both fundamental research and in industrial applications of microorganisms.
Bioinstrumentation	On successful completion of this course students can able to Measurement of physical, physiological and biological parameters in living organism
Immunology	Helps to the study of diseases caused by disorders of the immune system (failure, aberrant action, and malignant growth of the cellular elements of the system). It also involves diseases of other systems, where immune reactions play a part in the pathology and clinical features
Microbial genetics	This course helps to students how genes are organized and

	regulated in microbes in relation to their cellular functions. Closely related to the field of molecular biology.
Medical Microbiology	Know of microbial pathogenesis and epidemiology and is related to the study of disease pathology and immunology
R-DNA Technology	Used to identify, map and sequence genes, and to determine their function. R-DNA probes are employed in analyzing gene expression within individual cells, and throughout the tissues of whole organisms. Recombinant proteins are widely used as reagents in laboratory experiments and to generate antibody probes for examining protein synthesis within cells and organisms.
Medical Parasitology	Aid to know the parasites, how they infect human, diagnosis and treatment for it.
Medical Bacteriology	Helps to understand bacteria induced diseases and their diagnosis and treatments
Medial Virology	To identify and characterize viruses responsible for human disease and to treat and control those infections
Soil and agricultural Microbiology	By this courses student understanding of microbial strains relevant to agricultural applications is useful in the enhancement of factors such as soil nutrients, plant-pathogen resistance, crop robustness, fertilization uptake efficiency, and more.
Food and Dairy Microbiology	To study of the microorganisms that inhibit, create, or contaminate food, including the study of microorganisms causing food spoilage,
Clinical Microbiology	From this course students can detection, characterization, and quantification of microbes from patients in order to enable diagnosis, management and treatment of infectious diseases

AVS COLLEGE OF ARTS AND SCIENCE

Department of Microbiology

Attainment of programme outcomes, Programme specific outcomes and course outcomes

Formative assessment:

The following methods are used to improve the student's performance:

Individual Goal, Observations, Questioning, Discussion

Peer and Self Assessments, Practical Presentations, Visual presentations, Quizzes

Seminars, Conference, Workshops, Assignments, Debate, Industrial Visit.

Establishment of a classroom culture that encourages interaction among the students

Use of varied instruction methods to meet diverse student needs.

Use of varied approaches to assessing student understanding.

Feedback on student performance and adaptation of instruction to meet identified needs.

Active involvement of students in the learning process

B) Summative Assessments:

Summative assessments are provided at end of a unit to determine how much students have learned.

Summative assessments provide information for determining grades and giving students feedback on their performance. Summative assessments may come in the form of papers, homework problems, lab reports, projects, quizzes, and tests, and can include objective or subjective tasks.

Objective tasks have clear right and wrong answers, examples of which include mathematical solutions, multiple choice, true/false, and fill in the blank questions.

Subjective tasks are more open-ended, do not have obvious right and wrong answers, and must be evaluated by professionals who truly understand the material.

Criterion-referenced assessments are based on content-based expectations, while norm-referenced assessments compare students to others who have taken the same test.

Students pass criterion-referenced tests by obtaining a score in excess of a predetermined cutscore, while they pass norm-referenced tests by performing better than a given percentage of others who took the same test.

We are following these kind of methods to improve the passing percentage every year. Therefore we achieved the positive result from the students.

Note: Formative evaluation is typically conducted during the development or improvement of a program or course. **Summative evaluation** involves making judgments about the efficacy of a program or course at its conclusion.

AVS COLLEGE OF ARTS AND SCIENCE

DEPARTMENT OF BBA (CA)

PROGRAMME OUTCOMES

- To provide adequate basic understanding about Management Education among the students.
- To prepare students to exploit opportunities being newly created in the Management Profession.
- To train the students in communication skills effectively.
- To develop appropriate skills in the students so as to make them competent and provide themselves self-employment.
- To inculcate Entrepreneurial skills.
- To work well in teams, including virtual settings.
- To understand finance and other core business content.
- To recognize and solve business problems in an ethical manner.
- To communicate business information professionally.
- To build the department as a centre of excellence for imparting high quality management education at the undergraduate level.
- To contribute to creation of knowledge by encouraging faculty to engage in research.
- To stimulate in students an interest in research and initiate them into research methodologies.
- To make education accessible to students across borders of religion, geography, caste or gender.
- To foster thinking minds that are sensitive to societal needs and issues thus making them good human beings and responsible members of the society.
- To provide an environment that facilitates all-round development of the student personality

COURSE OUTCOMES

SUBJECT	Course Outcomes
Business Communication	<ul style="list-style-type: none">• Classify the Business Letters.• Describe the Essential of and offer effective business letter• Identify the Job Application Letter• Write down the Bio-data• Describe the ligenancy of communication• Write down the format of office circular• Clarify the types of Advertisement in the business• Write down the guidelines in managing in E-mails.

Business Policy & Strategic Management	<ul style="list-style-type: none"> • Describe Business Environment analysis and diagnosis give businessmen time to anticipate opportunities. • Describe the process environment analysis. • Write down points to be business environment analysis helps to forecast the future prospects of the business concern. • Write down points to be characteristics of today's business. • Describe the government responsibilities to business.
Financial & Cost Accounting	<ul style="list-style-type: none"> • Describe the useful information to student's business activities in future. • Write down the point to know the financial position of the business students. • Describe the discovers & prevents errors and frauds in business students. • Write down the point to know the Assets & liabilities of the business firms for business students. • To find out the correct cost of production in business students. • Describe the concept of cost disadvantage. • Write down the material control. • Classify the methods of wage payments and incentive plans. • Classify the different types of overheads. • Identity the preparation of cost sheet.
Principles of Management	<ul style="list-style-type: none"> • Classify the Management by objectives helps for the better management of resources and activities of an organization. • Describe the Effective plans co-ordinate the organizational work and eliminate unproductive effort. • Classify the division of work leads to efficient performance of duties. • Write down the point to help Training gives an employee confidence in handling the job assigned to him. • To find out good control system should be easily installed and economically maintained. • Identify to ensure successful implementation of the decision making through follow up procedures.
Organizational Behaviour	<ul style="list-style-type: none"> • Identify the study of Human Behaviour in organization. • Describe the personality and its determinate of personality. • Write down the decision marketing and its classified into individual, group division making. • Identify the communication and its classification, barriers to effective communication.

	<ul style="list-style-type: none"> • Describe the leadership and its quality of leaders, behavior of leader, classification of leader. • Identify the conflict and its type of conflict. • Classify the stress and managing stress. • Identify the organization change and steps in managing change. • Write down the organisational development and its objectives.
Business Mathematics & Statistics	<ul style="list-style-type: none"> • Describe the Analytical geometry. • Describe the difference and complements of set theory. • Write down the laws and simple set applications. • Write down the simple application of Economics using marginal concept. • Identify the types of matrix. • Identify the total and average cost functions. • Describe the measures to nay statistic analysis and methods. • Clarify the significance of diagrams and graphs. • Identify the objectives and types of Average. • Describe the Mean. Median, Mode. • Describe the types of Correlation Rank, Correlation, Co-efficient Correlation. • Describe the construction of Index numbers. • Classify the measurement of trends.
Marketing Management	<ul style="list-style-type: none"> • Describe the Communicate effectively in a variety of organizational settings. • Describe the complex qualitative and quantitative data to support strategic and operational decisions. • Write down the point to comprehensive strategic and tactical plans for an organization. • Classify the Work independently and collaboratively in inter and/or multidisciplinary and diverse environments. • Write down the point to Use creative, critical and reflective thinking to address organizational opportunities and challenges. • Describe the Demonstrate ethical and socially responsible behaviour. • Write down the point to integrate appropriate technologies in developing solutions to business opportunities and challenges.
Marketing Research	<ul style="list-style-type: none"> • Describe the applications of Marketing Research. • Identify the position of Marketing Research in India. • Write down the Scientific methods in Marketing Research.

	<ul style="list-style-type: none"> • Classify the methods of research design such as descriptive Research and experimental research. • Describe the methods of collection of data. • Describe the methods of interview and observation. • Classify the types of sampling. • Write down the measurements of scaling techniques. • Describe the techniques and limitation of motivation research. • Identify the various applications of consumer research.
Management Accounting	<ul style="list-style-type: none"> • Describe the concept of management accounting and its advantage & disadvantage. • Write down distinguish between financial accounting and management accounting. • Classify the ratios and its merits. • Classify the preparation of fun flow statement. • Write down merits & demerits of fun flow statement. • Describe the preparation of cash flow statement and its merits & demerits. • Identity the concept of marginal costing and cost volume analysis. • Describe the application of marginal costing. • Identity standard costing and its steps. • Classify the different types of variance.
Elements of Business Law	<ul style="list-style-type: none"> • Describe the law and commercial law rules and regulation. • Identify the contract and its classification of contract. • Write down the essential of a valid contract. • Describe the capacity of parties and incapacity of parties in contract. • Write down the sale of good act. • Identify the transfer of property. • Identify the agent, and its types of agent, duties right of an agent. • Describe the companies act and type of company, characteristic of company. • Classify the difference between condition and warranty. • Identify the unpaid seller and its rights of unpaid seller.
Financial Management	<ul style="list-style-type: none"> • Describe the concept of financial management and its function • Identity the principles of capital structure • Identity the source of finance • Describe the working capital management and its techniques of forecasting in working capital. • Describe the concept of cost of capital and its

	<p>classifications</p> <ul style="list-style-type: none"> • Identity the determination of cost of capital • Write down the characteristics of budgetary control • Identity the preparation of production, sales, cash budget, flexible budget • Describe the different factors affecting in capital investment proposal • Classify the capital budgeting appraisal methods
Managerial Economics	<ul style="list-style-type: none"> • Students gained knowledge about the concepts in economics and managerial economics. • Students understood about the demand analysis and consumer behavior • Students gained complete knowledge about the cost concepts and production function • Students had a theoretical knowledge about the Pricing methods • Students acquired knowledge about the concept of Market Structure in detail
Human Resource Management	<ul style="list-style-type: none"> • Acquired knowledge on HRM, its environment, methods of selection, and Interview techniques. • Gained knowledge on training and career development • Students learnt about remuneration and welfare measures. • Gained facts about labour relation and Industrial disputes. • Students learnt about human resource audit, nature and approaches.
Management Information Systems	<ul style="list-style-type: none"> • Students gained knowledge on MIS and its support for planning, organizing and support for controlling • Students learnt about different concept of system • Gained knowledge on various element of computer and its accessories • Students gained knowledge on SDLC and corresponding professional course • Acquired knowledge on different support systems

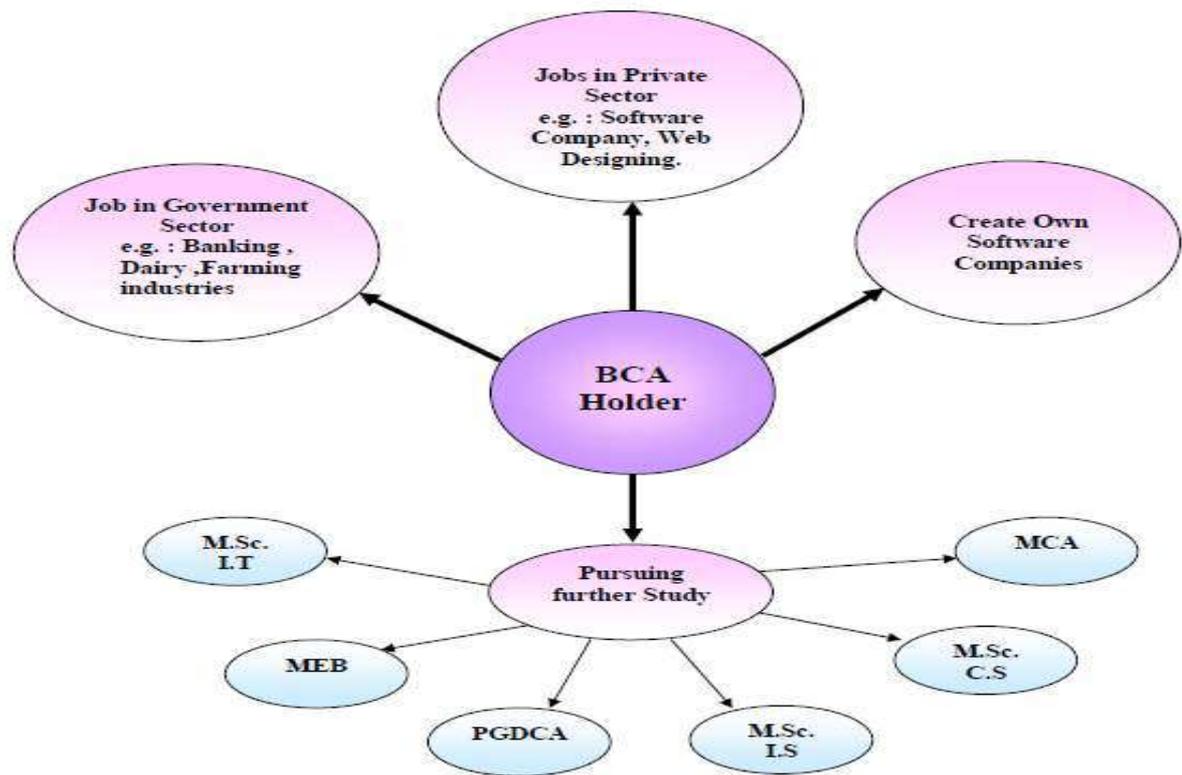
AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF COMPUTER APPLICATIONS
SCOPE OF BCA (BACHELOR OF COMPUTER APPLICATION)

Computer Application combines the study of core theoretical principles with relevant practical experience. In addition to gaining knowledge and skills using software and hardware technologies, you will learn a range of contemporary techniques used in software development. By introducing fundamental concepts and practical methods, we prepare you to adapt to this fast-changing field of study

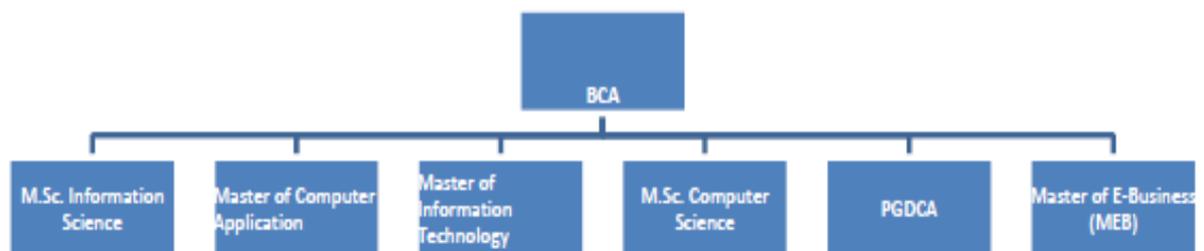
Talent in a variety of areas is a good indicator of potential success in this course including, for example, creative and analytical skill, a flair for design and an ability to think logically

The course provides grounding in the major themes of technical computing including software specification, design, development, testing, implementation database and web technologies, theoretical and practical fundamentals, and awareness of professional practice and social responsibility.

Most of the students doing their higher secondary education think that science students alone can apply for the BCA course. But, this is not true, even commerce students can apply for the BCA course. The only eligibility criteria in most of the universities offering BCA course is that the student should have studied mathematics as a subject in their 10+2 level. So, commerce students with mathematics as a subject in their +2 level can apply for the BCA course.



After BCA Master Degree



JOB OPPORTUNITY

Careers include web developer, systems analyst, systems designer, IT consultant, software engineer, IT technician, systems integration developer, database administrator market researcher, etc.

We know that India is an IT power thus it is obvious that the course of BCA will provide jobs in the IT sector. The companies such as Wipro, InfoTech, Satyam, [TCS] Tata Consultancy Service, Airtel, Alcance Technologies, Aspire, ASP Infotech, Bright Star, Dicom, Genius software, IDBI-Coimbatore, IDBI-Erode, Infosys, KVB, Lexis, Mphasis, People Point, Shield, Tech Mahindra, Vee Technologies, Vultruron Techlologies, Siemens Communications, Vodafone, and Essar Communications are hiring Students every year.

It is of out sounding news to know that even the Students are getting placements in dairy firms, banking firms. The firms are hiring more of the BCA applicants for their software based queries.

If one wishes to become a Software Developer or web-designer or wants to take up a career in Systems Management, then BCA is the best course to get an early start for their careers. Job opportunities can be found in both large and small software development organizations as well as hardware companies.

AVS COLLEGE OF ARTS AND SCIENCE
DEPARTMENT OF COMPUTER APPLICATIONS
COURSE OUTCOME

B.C.A	
COURSE	OUTCOMES
I SEM	
COMPUTER APPLICATIONS FOR OFFICE AUTOMATION	Office automation makes it possible for businesses to improve their productivity and optimize existing office procedures which saves time, money and human efforts. Office automation includes sophisticated and complex tasks such as integrating front office and back-end systems to make your business run more smoothly.
II SEM	
PROGRAMMING IN C	At the end of this course, each student should be able to: CO1. Choose appropriate data structures to represent data items in real world problems. CO2. Analyze the time and space complexities of algorithms CO3. Design programs using a variety of data structures such as stacks, queues, hash tables, binary trees, search trees, heaps, graphs, and B-trees. CO4. Analyze and implement various kinds of searching and sorting techniques.
III SEM	
FUNDAMENTALS OF DIGITAL COMPUTERS	Understand binary, hexadecimal and octal number systems and their arithmetic. Bridge the fundamental concepts of computers with the present level of knowledge of the students. Familiarise operating systems, programming languages, peripheral devices, networking, multimedia and internet
STRUCTURED SYSTEM ANALYSIS AND DESIGN	Describe the concepts of systems analysis and information systems development • Describe the project selection and management techniques • Develop and analyze the systems requirements documentation • Identify use case analysis elements and alternatives • Analyze systems process modeling • Describe process modeling techniques • Describe data modeling techniques • Analyze design alternatives • Describe systems architecture design
DATA STRUCTURES AND ALGORITHMS	Ability to analyze algorithms and algorithm correctness. 2 Ability to summarize searching and sorting techniques 3 Ability to describe stack, queue and linked list operation. 4 Ability to have knowledge of tree and graphs concepts.
IV SEM	
RELATIONAL DATABASE MANAGEMENT	At the end of this course, each student should be able to: CO1. Demonstrate the basic elements of a relational database management system.

SYSTEMS	CO2. Identify data models for relevant problems. CO3. Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data. CO4. Apply normalization for the development of application software's. CO5. Design and implement a full real size database system
OPERATING SYSTEM	to understand the basic components of a computer operating system, and the interactions among the various components. The course will cover an introduction on the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems.
OBJECT ORIENTED PROGRAMMING IN C++	This lab work provides hands-on for C++ & DS programs using C++ language learnt in theory session. C++ Programming assignments based on class, inheritance, abstraction, encapsulation, dynamic binding, polymorphism, I/O systems, exception handling should be covered DS using C++ assignments should be based on Stacks, Queue, Linked List and mainly it should cover Tree , Binary Threaded Tree & Graph programs
V SEM	
PROGRAMMING IN JAVA	At the end of this course, each student should be able to: CO1. List and use Object Oriented Programming concepts for problem solving. CO2. Write programs using Java collection API as well as the java standard class library. CO3. Solve the inter-disciplinary applications using the concept of inheritance. CO4. Apply JDBC to provide a program level interface for communicating with database using java programming
WEB TECHNOLOGY	Create PHP programs that use various PHP library functions, and that manipulate files and directories. 1: Analyze and solve various database tasks using the PHP language. 2: Analyze and solve common Web application tasks by writing PHP programs.
E-COMMERCE	After studying this course, you should be able to: Detail what is meant by the term 'e-commerce Examine some typical distributed applications Detail some of the problems that are encountered when developing distributed applications Describe briefly some of the technologies that are used to support distributed applications Show how some of the technologies detailed in the course are used in concert to realize a typical commercial system.
VI SEM	
GUI PROGRAMMING	Design, formulate, and construct applications with VB.NET. Integrate variables and constants into calculations applying VB.NET. Determine logical alternatives with VB.NET decision structures. Implement lists and loops with VB.NET controls and iteration
COMPUTER NETWORK	students to computer networks and concentrates on building a firm foundation for understanding Data Communications and Computer

	Networks. It is based around the OSI Reference Model that deals with the major issues in the bottom three (Physical, Data Link and Network) layers of the model. Students are also introduced to the areas of Network Security and Mobile Communications.
ANDROID PROGRAMMING	Install and configure Android application development tools. Design and develop user Interfaces for the Android platform. Save state information across important operating system events. Apply Java programming concepts to Android application development.

AVS COLLEGE OF ARTS AND SCIENCE, SALEM - 106

DEPARTMENT OF COMMERCE CA

B.COM (COMPUTER APPLICATION) PROGRAM OUTCOMES

1. Study of this program will provide wide knowledge both in commerce and Computer software applications.
2. Program includes various accounting courses, enables the students to gain theoretical and problem solving ability of the students.
3. Business software applications courses like Tally will enable the students to start a small software business of self employment.
4. These courses have opened the floodgates in the area of computers and other core industries, and other professional studies CA, ICWA etc.
5. Courses of this program provide bright future in the IT fields, Software, Banks, Companies, BPOs and KPOs.
6. This program courses consist of both theoretical as well as good practical exposures to the students in the relevant areas to meet the industries expectations.
7. Courses of the program provide the cost benefit analysis and SWOT analysis enables the students for cost consciousness of each and every business operations.

The Commerce CA graduates should be able to:

- **Accounting knowledge:** Apply the knowledge of mathematics, Social science, accounting fundamentals, and computer specialization to the solution of complex accounting & management problems.
- **Problem analysis:** Identify, formulate, research literature, and analyse socio – economic problems to arrive at substantiated conclusions using first principles of statistics, natural and social sciences.
- **Design/development of solutions:** Design solutions for economic problems and design software, processes to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **Conduct investigations of complex problems:** Use research – based knowledge including design of tools, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

- **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern statistical tools & software.
- **The accountant and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional accounting practice.
- **Environment and sustainability:** Understand the impact of the professional accounting solutions in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.
- **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the accounting practices.
- **Individual and team work:** Function effectively as an individual, and as a member or leader in teams, and in multidisciplinary settings.
- **Communications:** Communicate effectively with the accounting professional & IT community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear instructions.
- **Project management and finance:** Demonstrate knowledge and understanding of management & software engineering principles and apply these to one's own work, as a member and leader in a team. Manage project in multidisciplinary environments.
- **Life – long learning:** Recognize the need for and have the preparation and ability to engage in independent and life – long learning in the broadest context of technological change

PROGRAM SPECIFIC OUTCOMES

1. Programme provides the outcome of Accounting, Banking, Cost Accounting, Management Accounting, Computer Language, Software and Software application in the Commerce.
2. Programme curriculum result in the office atomization with computers and computer software application.
3. Programme has opened the floodgates in the eve of software application jobs in the eve of trade Commerce, Business, Banking, and Insurance and in related eve of business.

AVS COLLEGE OF ARTS AND SCIENCE

DEPARTMENT OF COMMERCE CA

COURSE OUTCOMES

ODD SEMESTER

S.NO	COURSE	OUT COMES
1	Principles of Accountancy	1.To enable the students to acquire basic knowledge of accounting principles, concepts and conventions. 2. To make the students to acquire the skill to prepare the trial balance and final accounts.
2	Business Communication	1.To develop better written and oral business communication skills among the students and enable them to know the effective media of communication. 2· To enhance their writing skills in various forms of business letters and reports.
3	Business Law	1.To cultivate understanding of the various Trade Laws of Land - with an expert knowledge of Indian Contract Act, Sale of Goods Act. 2· To provide comprehensive understanding of rights, duties and responsibilities of the parties entering into business dealings
3	Corporate Accounting - I	1.To enlighten the students on the accounting procedures followed by the company. 2. To enable the students to be aware on the Corporate Accounting in conformity with the provisions of the Companies Act.
4	Capital Market	1.To enlighten the students the role of capital markets in India. 2· To create awareness about the stock market among the students.
5	Marketing	To enlighten the students the role of Marketing in India. 2· To create awareness about the

		Marketing among the students.
6	Cost Accounting	1.To provide an in-depth knowledge on cost ascertainment. 2· To enable the students to appreciate the utility of costing in industries
7	Auditing	1.To gain a fair working knowledge of the importance of vouching and internal check in practice in various organizations. 2 · To create interest in the minds of students towards auditing profession.
8	Income Tax Law and Practice I	1.To gain basic knowledge of the provisions of Income Tax Act under different heads of income. 2. To acquire the ability to apply the knowledge of the provisions of laws to various situations in actual practice
9	OFFICE ORGANISATION	1· To enable the students to learn the office organization, types, office furniture and machines.
10	Financial Accounting	1.To enable the students to learn the basic concepts of Partnership Accounting and allied aspects of accounting. 2 · At the end of the course students shall understand partnership accounts, branch and departmental accounts and apply the same in the real business world.
11	CORPORATE ACCOUNTING -II	1.To equip the students with accounting methods formatted from inception to liquidation and to have knowledge about Amalgamation , Absorption and Reconstruction. 2· To lay down a foundation for drafting accounts for special corporate bodies such as banking companies and holding companies.
12	PROJECT METHODOLOGY	1· To provide basic knowledge about the project methodology. 2 · After the successful completion of the course the student will come to know how to carry out the project work
13	HUMAN RESOURCE MANAGEMENT	1· To provide basic knowledge about the human resource management. 2 · After the successful completion of the

		course the student will come to know how to carry out the Employees Training.
14	MANAGEMENT ACCOUNTING	<p>1.To develop an understanding of the conceptual frame work of management accounting.</p> <p>2· To acquaint the students, the Management Accounting Techniques that facilitates managerial decision making.</p>
15	ENTREPRENEURIAL DEVELOPMENT	<p>1.To enable the students to learn the concept of Entrepreneurship.</p> <p>2· To instill ideas on identification, selection and preparation of projects and to have awareness on the institutions promoting entrepreneurship</p>
16	INCOME TAX LAW AND PRACTICE - II .	<p>1· To provide an in depth knowledge of the provisions of Income Tax Act.</p> <p>2.To enable the students to access the financial status of the organization and individual and filing of returns.</p>
17	COMMERCE PRACTICALS	1· To provide practical knowledge to fill forms like insurance, bank, loan application, membership form, income tax return forms etc

