Estd : 1968

# A.V.COLLEGE OF ARTS, SCIENCE & COMMERCE

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Phone: 040 – 27637751, www.avcollege.in
Accredited with 'B++' Grade by NAAC (3rd Cycle)
Vision: Empowerment Through Pursuit of Excellence

## Program Outcomes and Program Specific Outcomes-2023-2024

| S.No. | Program | Program Outcome | Program Specific Outcomes |
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| 1. | BA-EPP/PPP | The program enables students to work effectively and efficiently in a competitive environment and aims to offer education that equips them to think critically about the issues of contemporary relevance and hold an informed opinion on them. It helps them cultivate the sensibility to discern the evolution of civilizations and cultures thereof evoking a sense of social service. " | The course provides the students with the opportunity to focus on applied and policy issues in Economics, Public Administration Political Science with structured curricula which support the academic development of students and their aspirations<br>Students will be able to recognise, compare and apply the core domains of psychology, political science and public administration and demonstrate a sense of societal and ethical responsibility in their professional endeavours and remain informed, involved and evolved individuals. |
| 2. | BSc-Physical Sciences MPC, MPCS, MCCS, MPE, MPS, MSCS, MECS | The program intends to help students develop a deeper understanding of natural laws, inquiring about the reasons and logics which govern them through established methods of observation, modelling, experimentation and calculations and opens a plethora of employment opportunities in Research Laboratories, Government Corporations, Banking and Finance Sectors etc. It imbues scientific temperament in students and empowers them to think independently and systematically draw a logical conclusion in their problem areas. | Maths, Physics and Chemistry are thoroughgoing subjects which enhances a student skill sets. Mathematics is a main tool for interpret, analyse quantitative data and helps in calculation part in both physics and chemistry laboratory. Apply analytical and theoretical skills to model and solve mathematical problems. Develop the knowledge, skills and attitudes necessary to pursue further studies in Mathematics and research in Mathematics. Gain basic knowledge on the core topics of physics: classical and quantum mechanics; thermal and statistical physics, wave, optics and electromagnetism, Modern physics. Understand the applications of physical and mathematical principles. Understand the concept of Isomerism, basic characteristics of aliphatic & aromatic compounds, carbohydrates, heterocyclic compounds. Know about the mode of action of drugs and fundamentals of green and polymer chemistry. Understand the basic concepts of Thermodynamics, electrochemistry, chemical kinetics, atomic structure, |

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| | | | coordination compounds, bioinorganic chemistry, metal complexes, spectroscopy and separation techniques.<br>Maths, Physics, Computer Science-/Chemistry Maths, Physics and Computer Science/Chemistry, are complementary subjects which enhance students' skill set and help them gain, excel and master in Theoretical and Experimental grounds. It enables them to acquire analytical and logical skills for higher education.<br>On completion of the course, one can gain employability in non -scientific sectors to scientific sectors. They can seek out a career in Research Laboratories, Government Corporations, Banking Sector. Apart from this, Science Graduates will also be eligible to work in the IT industry, Business, BPO, Marketing, Technical Writing and many more.<br>Maths, Physics, Statistics are complementary subjects which enhance students' skill set and help them gain, excel and master in Theoretical and Experimental grounds and data science. It enables them to acquire analytical and logical skills for higher education.<br>It enables, empowers and enriches students who wish to make a career in biological research, biotechnology, law, conservation, public policy, and science writing, as well as the health professions, including medicine, veterinary medicine and public health.<br>Maths, Electronics, Comp Science On completion of the course, one can gain employability in non -scientific sectors to scientific sectors. They can seek out a career in Research Laboratories, Government Corporations, Banking and Finance Sector. Apart from this, Life Science Graduates will also be eligible to work in the IT industry, Business, BPO, Marketing, Technical Writing and many more. |
| 3. | BSc- Honors | The program aims to produce graduates with a deep understanding of their chosen science discipline, strong analytical and critical thinking skills, proficiency in research methods, effective communication abilities, the capacity for independent learning, and the ability to apply their knowledge to real-world problems, often preparing them for further research or specialized careers in their field; key program outcomes include: in-depth subject knowledge, research skills, critical analysis, problem-solving, effective communication, laboratory expertise, and the ability to contribute to scientific advancements; depending on the specific | Students get knowledge and training of technical subjects so that they will be technical professional<br>by learning C programming,<br>Relational Database Management, Data Structure, Software Engineering, Graphics, Java,, Networking, Object Oriented Software Engineering.<br>Students understand the concepts of software application and projects.<br>Students understand the computer subjects with<br>demonstration of all programming and theoretical concepts with the use of ICT.<br>Development of in-house applications in terms of projects. Students will build up programming, analytical and logical thinking abilities.<br>Aware them to publish their work in reputed journals |

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| | | subject, they may also develop skills in data analysis, modeling, and ethical considerations within their field. | |
| 4. | BSc-Life Sciences BZC, ZCCN, BZCN, BCCN | The program helps the student to understand different life forms. This program serves as a basis for higher studies in related fields of Botany, Zoology, Biochemistry, Biotechnology, Microbiology, Genetics, Molecular Biology, Food Science, Biomedical Sciences, Environmental Sciences, Virology, Toxicology etc<br>Jobs after B.Sc Life Sciences are available in both the public sector and in the private sector. The graduates can work in the field of Education, Colleges, Research, Nutrition, and Teaching. B.Sc Life Sciences scope can also be increased with an added experience of legitimacy even as it involves reading potential. | Students of the B.Sc. (B.Z.C) programme would learn all basic concepts in biological and chemical sciences and this enables them to take up advanced studies in any of the branches of life sciences, chemical sciences, social sciences and management. Further on completion of B.Sc degree students are eligible to appear for lucrative employment opportunities across the globe. The modules on tissue culture, pharmaceutical botany, taxonomy, analytical chemistry, sericulture, pisciculture etc makes them fit to be employable in related industries. We are providing short term certificate courses like Plant propagation and Nursery Management, Mushroom cultivation, Material packaging etc to students which enables them to be self employable. "<br>Students of the B.Sc. The programme would learn all basic concepts in biological and chemical sciences and this enables them to take up advanced studies in any of the branches of life sciences, chemical sciences, social sciences and management. Further on completion of B.Sc degree students are eligible to appear for lucrative employment opportunities across the globe. The modules on tissue culture, pharmaceutical botany, taxonomy, analytical chemistry, sericulture, pisciculture etc makes them fit to be employable in related industries. Clinical Nutrition and Dietetics also helps students learn about different concepts of nutrition which helps in leading a healthy life. |

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| 5. | BCom-General<br>B.Com-Computer Applications | The Program enables the students to understand the application of knowledge of Commerce in Business Service Sector Industry, Marketing, Finance Entrepreneurship Development and hones their creativity, bringing out innovative ideas thereby enriching their leadership skills and preparing them to compete with the present day global job market. | This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements. After completing graduation, students can get skills regarding various aspects like Finance Manager, Selling Manager, over all Administration abilities of the Company. Capability of the students to make decisions at personal & professional level will increase after completion of this course. Students can independently start up their own Business. Students can get thorough knowledge of finance and commerce. The knowledge of different specialisations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization. Students have choices to pursue professional courses such as CA, M.COM, MBA,CMA, ICWA, CS, etc. Imparts skills regarding various aspects like Finance Management, Marketing and Administration etc., to students and helps them make decisions at a personal & professional level by the end of the course. Students can get thorough knowledge of Finance and Commerce, thereby equipping them to be self-sufficient and start up their own business. Opens opportunities for students to pursue professional courses such as CA, M.COM, MBA, CMA, ICWA, CS, etc. |
| 6. | BBA | The program equips students with a solid foundation in business principles and practical skills essential for professional success. Graduates develop a comprehensive understanding of management, marketing, finance, and operations. They acquire critical thinking and problem-solving abilities to address complex business challenges and demonstrate effective communication and interpersonal skills. Students gain a global perspective, leadership qualities, and teamwork skills, enabling them to excel in diverse and dynamic business environments. With an entrepreneurial mindset and a commitment to lifelong learning, BBA graduates are well-prepared to navigate and lead in the competitive business landscape. | The program provides the outcome of Accounting, Banking, Cost Accounting, Management Accounting, Computer Language, Software and Software application in the Commerce. Students also acquire skills to work as a Software Engineer and other financial supporting services. Students are trained to be Businessmen, Entrepreneurs, Managers, Software Consultant, which will help learners possess the knowledge and other soft skills and react aptly when confronted with critical decision making. |

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| 7. | BBA-Logistics | The program equips students with specialized knowledge and skills to manage and optimize supply chains, transportation, and warehousing operations. Graduates gain a deep understanding of logistics concepts, including inventory management, procurement, distribution, and global trade practices. Students learn to leverage technology and data analytics for efficient decision-making and operational excellence. They are trained in communication, teamwork, and leadership to collaborate effectively in dynamic environments. Emphasis on sustainability and ethical practices ensures graduates contribute to responsible logistics management. With a global outlook and a commitment to continuous learning, they are prepared for successful careers in logistics and supply chain management. | Upon graduation, students will be able to exhibit an understanding of broad business concepts and principles, demonstrating the ability to identify a business problem, isolate its key components, analyse and assess the salient issues, set appropriate criteria for decision making, and draw relevant conclusions and implications for proposed solutions. Equips with capabilities required to apply cross-functional business knowledge and technologies in solving real-world business problems. |

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| 1 | **MBA** | The two year Master's in Business Administration Programme will help its graduates focus on communicating effectively,identify the key issues facing a business,utilize qualitative and quantitative methods to investigate and solve critical business problems,integrate tools and concepts from multiple functional areas (i.e. finance, marketing, operations, etc.) to solve business problems and help evaluate and integrate ethical considerations when making business decisions | To prepare students to function effectively as skilled managers in a dynamic environment. To imbibe in students, professional ethics, values and social responsibility of Business. To inculcate in students the ability to gain multidisciplinary knowledge through live projects and internships, so that they can remain functional and relevant in the market. To inculcate in students the qualities of leadership for taking the challenge of creating their own opportunities through entrepreneurship. |
| 2 | **MCA** | The two year master's program will provide computational knowledge which helps the student to develop an ability to identify, critically analyze and formulate complex computing problems using fundamentals of compuer science and application domains and to devise and conduct experiments, interpret data and provide well informed conclusions and to select modern computing tools, skills and techniques necessary for innovative software solutions | Would be able to use software development tools, software systems, and modern computing platform with a sound theoretical background as well as good practical exposure in the relevant areas.<br>1. To enable students to pursue careers in IT industry/ consultancy and teaching and areas related to computer science.<br>2. Comprehend, explore and build computer programs in the areas to Algorithms, System Software, Multimedia, Web Design and Big Data Analytics for efficient design of computer-based systems of varying complexity. |
| 3 | **M. Sc. (Physics)** | The two year Master's programme in Physics with specialization in Optoelctronics, aims to provide students the knowledge, understanding and skills required to conduct further independent studies, to work efficiently in a group towards a common goal in science, technology or industry in an innovative manner and an ability to assess with consideration to the relevant scientific, social and ethical aspects. | On completion of the programme, the students shall<br>1. demonstrate broad knowledge and understading of basic physics behind opoelectronic devices and optical fibers, and to compare and evaluate different designs of opoelectronic devices,<br>2. acquire detailed knowledge of applying optoelectronic princoples in modulation, switching, integration etc., with an ablility to integrate their knowledge s to design simple integrated optoelectronic devices using different components and information transmission systems,<br>3. identify current research areas and technologies in the field of optoelectronics and demonstrate insight into potential and limitations of science and technology in society and their responsibility. |
| 4 | **M Sc ( Chemistry )** | The two year Master's programme in Chemistry with specialization in Organic Chemistry aims to prepare postgraduates who will excel in industry,graduate programs,professional schools or high school teaching through rigorous chemistry classroom,laboratory and research experiences. | 1. To provide enoromous job oppurtunities at all level of chemical (Specific placements in R & D) , pharmaceutical , food products,life oriented material industries.<br>2. To provide students with scientific skills and chemical knowledge essential for success. 3. To train students in proper laboratory and safety techniques. |

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| 5 | **M Sc ( Bio-Technology )** | To produce competent biotechnologists who can employ and implement their contemporary knowledge base in premium processes and applications which will profoundly influence or can be utilized in the fields of agriculture, industry, healthcare and restoration of degraded environment to provide a sustainable competitive edge to society. Students will be eligible for jobs in pharmaceutical and biotechnological industry | 1.Apply fundamental knowledge of biological sciences for human Welfare.<br>2.Demonstrate the application of biotechnological processes of industrial biochemical processes that are of social and industrial importance.<br>3.Exhibit skills of handling microbial processes, biochemical analysis by making use of state of the art instruments .<br>4.Exhibit strong, independent learning, analytical and problem solving skills with special emphasis on design, communication, and an ability to work in teams.<br>5.Students will be able design, conduct experiments, analyze and interpret data for investigating problems in Biotechnology and allied fields |
| 6 | **M Sc ( Computer Science )** | M.Sc.(Computer Science) Programme provides students with the knowledge and ability to develop creative solutions, developing skills to learn new technology, apply theoretical and software development concepts to construct computing-based solutions. | 1.Able to adapt the skills to implement effective solutions for need based problems by applying knowledge gained through different programming languages, tools and software 2. Able to Understand, analyse and develop computer programs in the areas related to Algorithms, System software, Compiler design, Networking, Cloud Computing, Artificial Intelligence, IoT &Mobile applications |
| 7 | **M.Sc. (Mathematics)** | The two years Masters programme in Mathematics aims to help the student in solving problems in the advanced areas of numerical analysis, linear algebra, real analysis and statistics and to help them to read, analyze, and write logical arguments to prove mathematical conceptsand to communicate the mathematical ideas with clarity and coherence. To perform research and formulate solutions to challenging mathematical and/or applied problems to interpret scientific (professional) literature. | 1)Develop problem solving skills and practical applications of the mathematics in different branches of engineering sciences.<br>2)Application of mathematical in allied fields.<br>3)Application of computational programming to rationalize various problems for better understanding of real time situations. |
| 8 | **M Sc ( Applied Maths)** | | 1) Provide knowledge of a wide range of mathematical techniques and application of mathematical methods<br>2) To develop problem solving skills and apply them independently to problems in mathematics<br>3)Acquire knowledge in recent development in various branches of mathematics and to pursue research.<br>4)Sharpen their analytical thinking, logical deductions and rigor in reasoning |

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| 9 | **M Com** | The two year Master's of Commerce programme will help the graduates focus on acquiring expertise in finance, financial instruments and markets,advanced theoretical knowledge and research capabilities in their preparation for academic and research focused careers and to develop skills in the application of research methods for business problem solving | 1. The M. Com. (Finance) course offers an opportunity for graduates to acquire theoretical<br>as well as practical inputs in commerce.<br>2.The advantage of entering a career either in academics, research or, alternatively, in other professional areas of commerce and finance such as taxation, consultancy and financial services. |
| 10 | **M A (Telugu)** | సమాజానికి, సాహిత్యానికి మధ్య ఉన్న సంబంధాన్ని తెలియజేయటానికి ఉపయోగపడే సృజనకారులుగా తీర్చిదిద్దుతుంది.జానపద సంస్కృతీ సంప్రదాయాలను సేకరించి, పరిరక్షించడానికి కావలసిన పరిశోధనాత్మక మెళకువలను నేర్పుతుంది. తెలుగు సమాజం, సాహిత్యంలో వ్యక్తమవుతున్న విధానాన్ని విమర్శనాత్మక కోణంలో అధ్యయనంచేసే విమర్శకులుగా రాణించడానికి దోహడపడుతుంది. అనేక రంగాల్లో భాష వినియోగింపబడుతున్న తీరును, ఎప్పటికప్పుడు భాషలో వస్తున్న మార్పులను అర్థంచేసుకొని నేటి డిజిటల్ రంగానికి అవసరమయ్యే భాషా సామగ్రిని సమాజానికి అందిస్తుంది. చారిత్రక పరిణామ క్రమంలో చోటుచేసుకున్న అనేక మార్పులను క్షుణ్ణంగా అధ్యయనం చేసి భావితరాలకు ఉపయోగపడే దార్శనికతను అందిస్తుంది. | 1. తెలుగుసాహిత్యంలోముఖ్యమైనది ఇతరభాషలలోలేనటువంటిది పద్యప్రక్రియ. ప్రాచీన సాహిత్య అధ్యయనం వలన ప్రాచీన కవుల రచనలతో పాటు పద్యం కవిత్వం; వాటిలోమెళకువలను తెలుసుకుంటారు.2. భారతీయ అలంకారశాస్త్రం వలన రచనకు ముఖ్యమైన రసం, ధ్వని, గుణాలు, రీతులుమొ; వాటిని ఆధ్యయనం చేయటం వలన రచనలతోపాటు, జీవిత నిర్దేశాన్నికూడా తెలుసుకుంటారు. 3. తెలుగు సంస్కృత భాషపై ఎక్కువగా ఆధారపడి ఉండటంవలన సంస్కృత సాహిత్యచరిత్ర అధ్యయనం వలన సంస్కృత కవుల పరిచయంతోపాటు వేదాలు, వేదాంగాలు సంస్కృత వ్యాకరణాన్నికూడ తెలుసుకుంటారు. 4. తెలంగాణ సంస్కృతి చరిత్ర అధ్యయనం వలన తెలంగాణ చరిత్ర గురించి తెలుసుకుంటారు. 5. నేటి డిజిటల్ తరానికి ఉపయోగపడే విధంగా భాషలో చేసుకోవాల్సిన మార్పులను తెలుసుకుంటారు. |