

S.K.B.R.GOVERNMENT DEGREE COLLEGE, MACHERLA

(Affiliated to Acharya Nagarjuna University,Guntur)

(Accredited with NAAC B++ Grade)

Program outcomes, program specific outcomes and course outcomes

<i>S.No</i>	<i>Subject</i>	<i>Outcomes</i>	<i>Specific Outcomes</i>	<i>Course Outcomes</i>
1	ENGLISH	<ul style="list-style-type: none">❖ Develop the aesthetic process of thinking and understanding.❖ Give more scope of exposure to enhance Language skills❖ Capable of evaluating various genres of writing❖ Inculcate the habit of reading Literature.❖ Encouraging the students towards research.	<ul style="list-style-type: none">➤ Possess Effective communication skills to become leaders in the modern world.➤ Adapting to the changing cultural & historical contexts and applying them in the present scenario.➤ Promotion of active citizenship &community engagement➤ Obtaining leadership qualities to sustain in the competitive world	<ul style="list-style-type: none">• English communication skills will instill confidence and pave the way for a bright career• Develop Critical thinking skills useful to sustain in the modern world.• Understand and Interpret the Modern Developments in all fields and enhance their intellectual abilities.• To make the students familiar with the basic Concepts of Computers and enable them to enhance their Job seeking Skills.

2	TELUGU	<ul style="list-style-type: none"> ❖ Special Telugu in B.A. will enable the students to know the essence of ancient literature both in Telugu and Sanskrit (Translated). ❖ Learning Special Telugu in B.A. will enhance the scope and purview of the students and enable them to understand both ancient and modern literature and will provide a foundation for them to improve their skills. ❖ Learning Telugu in B.A.,B.Com., and B.Sc., will make the students Learn Ancient Literature, ,Modern Literature and Grammar 	<ul style="list-style-type: none"> ➤ Improve and inculcate aesthetic sense and values through Literature. ➤ The Historic study of literature promotes a bent of mind that helps in understanding the Historic aspects of the Ancient period. ➤ To understand the political system and also be able to analyze it. 	<ul style="list-style-type: none"> • Students will develop leadership qualities and it helps in the Personality Development of the students. • Learning Telugu in B.A., B.Com, and B.Sc., will give scope to the students to learn both Ancient and Modern Literature which helps them to develop aesthetic sense and moral values and prepares them for the Future. • Learning Special Telugu in B.A will provide a vast platform for the students to understand History, Literature, Culture and the intricacies involved. • Learning Telugu will also help in future Job opportunities in the field of Media, Translation and other areas.
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3	HINDI	<ul style="list-style-type: none"> ❖ Learning Hindi in B.A.,B.Com., and B.Sc., will make the students to know Ancient and Modern Literature and Grammar ❖ Evaluation the concept of Hindi from past to present, making the society more close through literature ❖ Gives realization of Human values and sense of Social service. ❖ Can develop writing and reading skills ❖ Hindi is a Phonetic language 	<ul style="list-style-type: none"> ➤ Hindi provides unique opportunities to communicate with wider range of people. ➤ Advances the career ➤ Hindi improves memory critical thinking skills enhanced concentration ability to multi task as well as displays signs of grater creativity and flexibility. ➤ Builds confidence and strengthens the decision making. ➤ Way to improve conversation and reading and writing skills. 	<ul style="list-style-type: none"> • Learning Hindi in Degree will provide foundation for the students to improve their communication skills. • Also opens additional doors to opportunities to study and working across the world. • Hindi provides Job opportunities in both central and state Government. • To learn various forms of Functional Hindi Language. • Being also be read famous works of literature whether they are Novel poems or plays. • It is huge resource for learning other Languages
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4	URDU	<ul style="list-style-type: none"> ❖ Learning Urdu in B.A.,B.Com., B.Sc., will make the students to know Ancient and Modern Literature ❖ Can develop writing and reading skills ❖ Urdu is a Phonetic language 	<ul style="list-style-type: none"> ➤ Urdu provides unique opportunities to communicate with wider range of people. ➤ Improve and inculcate aesthetic sense and values through Literature. ➤ Advances the career ➤ Builds confidence and strengthens the decision making. ➤ Way to improve conversation and reading and writing skills. 	<ul style="list-style-type: none"> • Learning Urdu in Degree will provide foundation for the students to improve their communication skills. • Also opens additional doors to opportunities to study and working across the world. • Learning Urdu will also help in future Job opportunities in the field of Media, Translation and other areas. • Urdu provides Job opportunities in both central and state Governments. • To learn various forms of Functional Urdu traditional Language.
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5	ECONOMICS	<ul style="list-style-type: none"> ❖ To develop understanding the basic Economic principles. ❖ To analyses the current economic problems through critical thinking. ❖ To be equipped with economics subject knowledge for pursuing higher studies and preparing for competitive exams 	<ul style="list-style-type: none"> ➤ To understand basic economic concepts in micro, macro, growth and development economics. ➤ To be able to critically understand and analyze all the current economic problems at local, national and international levels. ➤ To get orientation for pursuing higher education in the subject and preparing for competitive exams. 	<ul style="list-style-type: none"> ● Students will have the knowledge of important concepts and issues in micro, macro, development, Indian economy, Andhra Pradesh economy and agricultural economics. ● Students will be able to critically understand and analyses the current economic issues like inclusive growth, sustainable development, unemployment, poverty, inequalities, inflation, trade, budget, taxation etc at local and global levels. ● Students will have clear understanding and knowledge about the career opportunities in economics in terms of higher education and public employment under UPPSC, APPSC, etc
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6	POLITICAL SCIENCE	<ul style="list-style-type: none"> ❖ Students will choose Politics as their career. ❖ Students will behave as future responsible citizens by the subject knowledge and cooperates with the government. ❖ Students will appreciate and follow the democratic values. ❖ Develop the habits of critical thinking for achieving excellence in day to day life ❖ Understand and appreciate sound political arguments, including developing a framework to construct, defend, and criticize theories and evidence. 	<ul style="list-style-type: none"> ➤ Students will get aware of the different political systems that are working throughout the world. ➤ Students will understand the values and the basics of the Indian constitution and respect the constitution. ➤ Students will become more vigilant citizens by knowing fundamental rights and duties. ➤ Students will understand the working of the constitution in India. ➤ They will understand the electoral process and recognize the importance of their right to vote. ➤ By understanding basic concepts in public administration, they will 	<ul style="list-style-type: none"> • Students will become aware of the various trends happening in the subject • The importance of government will be realized and will obey the rules of the government. • It helps in their future employment and students will prepare for various competitive exams • It creates interest among the students to follow news or to read newspapers to know about political activities throughout the world. • It helps to take teaching as their career in educational institutions • Find source material about political problems and solutions and to write coherent, rigorous analyses
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			<p>understand the organization and functioning of government institutions.</p> <p>➤ Students get affinity with international community and show their responsibility towards the problems of the world.</p>	<p>of political ideas and problems.</p>
7	HISTORY	<p>❖ Students can acquire knowledge and understanding of the ancient history and culture from the earliest times.</p> <p>❖ They understand and learn about the religious reform movements and the evolution of Jainism and Buddhism and other reform movements.</p> <p>❖ Students understand the Ancient Indian Administration, Society,</p>	<p>➤ Students learn the basic details of the historic events at specific times of the history.</p> <p>➤ Students understand and evaluate the historical ideas, views of the ancient ages, and cultures, Administration, society, Economy, Technology.</p> <p>➤ Students develop the quality of writing the autobiographies or biographies of inspiring</p>	<ul style="list-style-type: none"> • Cultural development in India over the centuries and the Impact of Islam on Indian Society and culture. • Student learn about the impact of British Colonial Policies and the Evolution of Freedom Movement • They come to know and understand the Social, Religious and self-Respect Movements. • They understand the Emergence of Nation states

		<p>Economy, Religion, Art, Literature, Science & technology and compare it to the modern age.</p>	<p>personalities who have their imprint on the society.</p> <p>➤ Students progress rapidly and learn to create play centres on various events in social reform movements and also on the freedom struggle.</p>	<p>and their rise and fall.</p> <ul style="list-style-type: none"> • The Renaissance movement , factors for the Growth of Renaissance, characteristics and Features • Students understand the Industrial revolution – origin, nature and impact. • They study World War I: Results of the War – Versailles treaty, Paris Peace Conference and the League of Nations. • They study World War II: causes, Rise of Fascism and Nazism and The structure of United Nations, functions and challenges.

8	MATHEMATICS	<ul style="list-style-type: none"> ❖ Provides programmes that enable students to define and understand Mathematical concepts ❖ Ability to apply Mathematical formulae in solving problems. ❖ Ability to solve problems by using different Mathematical methods ❖ Ability to estimate the solutions ❖ Develop Mathematical models and critical thinking among the students 	<ul style="list-style-type: none"> ➤ Students will demonstrate the ability to analyze the data ➤ Ability to apply Analytical and Theoretical skills in solving problems ➤ To enhance problem solving skill and adopt new problem solving techniques. ➤ Identify Mathematical formulae and solve Numerical problems ➤ Understand the applications of Mathematics in various subjects and daily life 	<ul style="list-style-type: none"> • Learning about concepts of Solid Geometry, Abstract Algebra, Linear Algebra and Numerical Analysis • Create interest among the students in solving problems • To develop and maintain problem solving skills • To develop Analytical and Logical thinking • Create platform for Higher studies in Mathematics
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9	PHYSICS	<ul style="list-style-type: none"> ❖ An ability to apply knowledge of mathematics and science in relation to the physical applications. ❖ An ability to design and conduct experiments, as well as to analyze and interpret data. ❖ An ability to function on multidisciplinary teams ❖ An ability to design a system component, or process to meet desired needs within realistic constraints. ❖ An ability to identify, formulate and solve application oriented problems. ❖ An understanding of professional and ethical responsibility. ❖ Helps to develop a constructive and problem 	<ul style="list-style-type: none"> ➤ To develop an ability for developing mathematics, science, and engineering and also analytical logical thinking. ➤ An ability to design and conduct experiments, as well as to analyze and interpret data for getting results. ➤ An ability to design a system, component, or process to meet the desired needs within realistic constraints. ➤ To develop an ability to apply the physical properties for the progress of the society and develop relative understanding. 	<ul style="list-style-type: none"> • Apply the theory of optics to calculate the geometrical parameters of thick lenses and design optical devices • Understand the phenomenon of interference of light and its formation in Lloyds mirror due to division of wave front and thin films. • Use thermodynamic tables, charts and equation of state (e.g. the ideal gas law) to obtain appropriate property data to solve thermodynamics problems. • Understand and assess the properties of waves including propagation, reflection, refraction, polarization, interference and diffraction by using wave theory. • Understand and be able to derive and solve the
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		solving approach.		equations for the damped oscillator in the over damped, critically damped and under damped regimes.
10	CHEMISTRY	<ul style="list-style-type: none"> ❖ Demonstrate, solve and an understanding of major concepts in all disciplines of chemistry. ❖ Solve the problem and also think methodically, independently and draw a logical conclusion. ❖ Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions. ❖ Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community. ❖ Find out the green route for chemical reaction for 	<ul style="list-style-type: none"> ➤ Gain the knowledge of Chemistry through theory and practical's. ➤ To explain nomenclature, stereochemistry, structures, reactivity, and mechanism of the chemical reactions. ➤ Identify chemical formulae and solve numerical problems. ➤ Use modern chemical tools, Models, Chem-draw, Charts and Equipments. ➤ Know structure-activity relationship. ➤ Understand good laboratory practices and 	<ul style="list-style-type: none"> • The chemistry course curriculum for the undergraduates includes the main areas of chemistry: organic, inorganic, physical and General chemistry. • The purpose of the program is to provide the key knowledge base and laboratory resources to prepare students for careers as professionals in the field of chemistry. • The department of chemistry works towards the development of a firm foundation in the fundamentals and application of current chemical and scientific theories.

		<p>sustainable development.</p> <ul style="list-style-type: none"> ❖ To inculcate the scientific temperament in the students and outside the scientific community. ❖ Use modern techniques, decent equipments and Chemistry software 	<p>safety.</p> <ul style="list-style-type: none"> ➤ Develop research oriented skills. ➤ Make aware and handle the sophisticated instruments/equipments. 	<ul style="list-style-type: none"> • The students are taught how to design and carry out scientific experiments as well as accurately record and analyze the results of such experiments. • The course is so designed that the students understand the central role of chemistry in our society and become potent enough to explore new areas of research both in chemistry and in allied fields of research and technology.
11	COMPUTER SCIENCE	<ul style="list-style-type: none"> ❖ An ability to apply knowledge of computing and mathematics Appropriate to the discipline. ❖ An ability to identify, formulates, and develop solutions to computational challenges. ❖ An ability to function effectively on teams to accomplish shared computing design, evaluation, or implementation goals. 	<ul style="list-style-type: none"> ➤ 1. Computer Fundamentals & Photoshop ➤ Understand the number systems helpful in communicating the system. ➤ Understand the various types of memory ➤ Understand the various tools available in Adobe Photoshop ➤ Understand how to work with images and filters. ➤ Learn the various image editing options in photoshop. ➤ Programming in C 	<ul style="list-style-type: none"> ❖ Describe the fundamental elements of relational database management systems ❖ Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL. ❖ Design ER-models to represent simple database application scenarios ❖ Convert the ER-model to relational tables, populate relational database and Formulate SQL queries on data. ❖ Improve the database design by Normalization.

			<ul style="list-style-type: none"> ➤ Appreciate and understand the working of a digital computer ➤ Analyze a given problem and develop an algorithm to solve the problem ➤ Improve upon a solution to a problem ➤ Use the 'C' language constructs in the right way ➤ Design, develop and test programs written in 'C' ➤ OOPS through Java ➤ Understand the concept and underlying principles of Object-Oriented Programming . ➤ Understand how object-oriented concepts are incorporated into the Java programming language ➤ Develop problem-solving and programming skills using OOP concept ➤ Understand the benefits of a well structured program ➤ Develop the ability to solve real-world problems through software development in high-level programming language like Java 	<ul style="list-style-type: none"> ❖ Study a body of knowledge relating to Software Engineering, Software Reengineering and maintenance. ❖ Understand the principles of large scale software systems, and the processes that are used to build them. ❖ Have skills in the most widely used approach to software construction object-orientation (OO), including OO requirement specifications, OO analysis, OO design, OO Programming, OO testing and maintenance ❖ Use tools and techniques for producing application software solutions from informal and semi-formal problem Specifications. <p>. Operating Systems</p> <ul style="list-style-type: none"> ❖ Analyze basics of operating system. ❖ Identify mechanism to handle processes, memory, I/O devices, and Files. ❖ Understand the memory management in Operating system. ❖ Understand the process management of Operating system. ❖ Understand the various addressing Modes.
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		<ul style="list-style-type: none"> ❖ An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computational systems. ❖ An ability to develop solutions to the complex problems in the field of Information Technology 	➤	
12	BOTANY	<ul style="list-style-type: none"> ❖ Botany deals with study of plants in detail, their structure functions and economic importance. ❖ Many things can be known from the plants. Plants lead a much disciplined life. All the systems functions in right way in right direction in coordinated way. The Plants are known for their service to mankind and nature. Likewise the students who study plants 	<ul style="list-style-type: none"> ➤ Inculcate strong fundamentals on modern and classical aspects of Botany. ➤ Creates a platform for higher studies not only in Botany but also in applied branches like Environmental Sciences, Biotechnology, Biochemistry Molecular Biology, Microbiology Medicinal Botany, 	<ul style="list-style-type: none"> • The students become adept in Plant Diversity right from Microorganisms to Macro Organisms and right from Algae to Modern Angiosperms • The students understand life sustaining activities of plants by studying Plant Physiology and Metabolism. As this area is interesting and dynamic it provokes a sense of research in the students and find new ways of growing plants like Hydroponics and

		<p>will inculcate the same discipline and service motto from the plants. And behave like responsible citizens of the nation</p> <ul style="list-style-type: none"> ❖ A Botany student is adept in environmental consciousness when compared to others and they lead a very responsible and accountable life with respect to environment which is the need of the hour. ❖ Apart from subject they will become good in universal values that sustain the nature ❖ They know the value of life and nurture the life with their own hands to help the society in many aspects. 	<p>Biostatistics Plant Breeding etc.,</p> <ul style="list-style-type: none"> ➤ Observation and Analysis which are two important aspects of Botany will develop the basic research skills in the students and lead to new discoveries. ➤ Through Value added courses in Botany students can make a wonderful career in Mushroom cultivation, Hydroponics, Medicinal plants, Nursery, Landscape gardening, seed technology, Bio-fertilizer production etc., ➤ The project works done in their course work will enhance their research ability. The assignments and communication 	<p>Aeroponics.</p> <ul style="list-style-type: none"> • The students understand the internal structure of cell and the functions. They not only deeply understand the basic differences between plants and other organisms in terms of cytology and anatomy but also they understand the universal Central Dogma of Life that brings all organisms under one umbrella. • In depth study of environment and Ecology will make them to pursue studies and career in this subject as environment is better understood by the biologist. • In depth knowledge they gained in Biotechnology and tissue culture will pave a path in selecting the Plant Biotechnology as their
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		<p>❖ The study of Botany inculcates critical thinking and paves a path for further research in their subject specific areas. It also enhances their communication level and paves a way for effective social interaction.</p> <p>❖ The study of Botany enhances their environmental awareness and insists them to strive for conserving a clean environment where ever they work.</p>	<p>skills</p> <p>➤ The field trips undertaken to prestigious institutions during their course will increase the hands on experience in different techniques used in plant breeding and Gardening.</p> <p>➤ The different programs conducted in the college will definitely enhance the quality of student in different aspects like Communication skills, Writing skills and life skills.</p>	<p>career.</p> <ul style="list-style-type: none"> • The foundation for basic Molecular Biology was laid in their graduation course which helps them to pursue higher studies in the above subject. • The students of this course learnt different medicine systems like Ayurveda and Ethno Botany etc., their further interest will certainly add value to the study in the form of their research publications in future. • As a whole it facilitates to take up a successful career in Botany • As a whole, these courses not only enhance their subject base but also train them in different life skills and make them responsible
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				citizens of our Nation.
13	ZOOLOGY	<ul style="list-style-type: none"> ❖ Students gain knowledge about basic concepts that operate and sustain life process. ❖ Acquaint knowledge regarding structural and functional aspects of animals. ❖ Understanding the inter relationships among animals, plants, microbes and non -biotic components. ❖ Understanding complex processes such as chemical evolution of bio-molecules and origin and divergence of life. ❖ Knowing basic studies of molecular biology at cellular level and understanding the physiology of organs, 	<ul style="list-style-type: none"> ➤ Students can understand the principles involved in microscope and slide preparation techniques. ➤ Students are able to run laboratory equipment such as centrifuge, electrophoresis, isolation of D N A and PCR etc. ➤ Able to conduct biochemical assay of proteins, carbohydrates and lipids. ➤ Students can work out problems in genetics and evolution. ➤ Students can enlighten the society regarding prevention and spreading of communicable and non-communicable diseases. ➤ Learning techniques that 	<ul style="list-style-type: none"> • Able to distinguish cellular level of organisation, tissue level organisation, organ and organ system levels of organisation. • Understanding the course of evolution from simple to complex by observing symmetries, coelom and other features. • Comparative study of various systems of vertebrates and identifies the divergent evolution. • Conceptual understanding of inheritance and variation. • Understand the distribution of fauna and correlate to geographical evolution of continents. • Well worse with

		<p>systems, and organism level.</p> <p>❖ Knowledge gain and skill development in bio-processing plants by visits and industrial tours in curriculum.</p>	<p>meet the employability in the field of Aqua and dairy industries.</p>	<p>applications of zoology in the fields of poultry, animal husbandry and aqua industry.</p>
14	COMMERCE	<p>❖ After completing three years for Bachelors in Commerce (B.Com) programme, students develop a thorough grounding in the fundamentals of Commerce and Finance.</p> <p>❖ The all-inclusive outlook of the course offers a number of values based and job oriented courses that ensure training of students and stand for the society. By learning the advanced accounting courses beyond the</p>	<p>➤ Students will be able to demonstrate progressive learning of various tax issues and tax forms related to individuals. Students will be able to demonstrate knowledge in setting up a computerized set of accounting books.</p> <p>➤ Students will demonstrate progressive domain development of values, and evaluate the role of accounting in society and business.</p> <p>➤ Learners will gain</p>	<ul style="list-style-type: none"> • To understand the acquired conceptual knowledge of Accounting and develop Students with the knowledge of accounting process and skill of preparation of final accounts. • To make students understand the intricacies of business organizations and to work by applying principles in business Management. • Learning the concepts of Micro economics, its needs.

		<p>introductory level, one can notice progressive development and to stand well placed at the organization levels.</p>	<p>thorough, systematic and subject skills within various disciplines of commerce, business, accounting, economics, finance, auditing and marketing.</p> <p>➤ Learners will be able to recognize features and roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.</p>	<p>Understanding of demand curve and its various functions. Understanding of laws of production and other related functions</p> <ul style="list-style-type: none"> • It enables the students to gain the grip over the undergoing Statistical techniques and those applicable to business.
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