

NIZAM COLLEGE Autonomous

Re-accredited by NAAC with B++

A Constituent College of Osmania University



PROGRAMME OUTCOMES





Department of Arabic

PO1: The Arabic course designed to help the students in getting job in various fields as we know the Arabic is the 5th most frequently spoken native diction in the world. It is majorly used by Muslims worldwide, with over 200 million people in various Arab countries, and well recognized in different regions of Africa as well.

PO2: It was included as the 6th official form of speech in the United Nations because of its widespread usage all over the globe. Besides, it is also the representative tongue in the Arab League, the Organization of Islamic Conference (OIC), and the African Union.

PO3: Due to high emergence of Western attention towards Middle East, whether it is for resolving peace issues between some countries or the wild spread of Multinational companies in such states, the basic understanding of Arabic is the very first thing to do so as to interact with locals productively.

PO4: As, the West is facing acute scarcity of people who are proficient in Arabic, be it in Journalism, Foreign Affairs, and other businesses etc. there is a great opportunity for people to learn this lingo and make their careers count in various fields.

PO5: Many Multinational organizations have recently moved to Middle East, like in United Arab Emirates and Saudi Arabia. They regularly search for foreign competent workers who could contribute to their business operations.

PO6: There is also a dearth of professionals among the locals of such countries, which is why they look for people from other countries. So, it is opens great prospects for those interested in moving to Arab world for living to speak, write, read and understand Arabic language



Department of Business Management

MBA- Master of Business Administration

To create a pool of managers and management professionals with world class competence by importing exemplary education and training to add value to the society by

PO1: providing professional development and training opportunities, and continuing education programs for students

PO2: Awarding and recognizing excellence of students.

PO3: Facilitating the establishment of networking and knowledge sharing.

PO4: Foster good business ethics and social responsibility in the student's community

PO5: Undertaking and pursuing all such other similar, related or compatible objects as may from time to time be considered appropriate by the Department and the college.

PO6: Enhance student career growth opportunity and to prepare them to meet the global challenges.

PO7: Effective teaching & learning in corporate culture in judicious manner.

PO8: To build up confidence and to encourage their managerial and entrepreneurial skill.

PO9: To implement innovative and best practices.



BBA- Bachelor of Business Administration.

BBA is a stepping stone to the high value postgraduate course, MBA. It helps the students to gain essential knowledge about the corporate world and also the fundamentals of administration.

PO1: After completing three years for Bachelors in Business Administration (BBA) program, students will be enhanced with knowledge and skills in the field of management, accounting, marketing and human relations.

PO2: The students are equipped with entrepreneurial and managerial skills for effective and business management.

PO3: Graduates gain expertise in the area of leadership, interpersonal skills, entrepreneurship, and marketing.

PO4: Graduate will competent the global competitive world more professionally.

PO5: Graduate are empowered to be a responsible citizen and lead the business with moral and ethical value through business ethics courses.



Department of Bio-Technology

The Department offers Biotechnology as an optional for B.Sc. Degree course. The course started in 2002 with an intake of 60 students and the combinations were Biotechnology, Botany & Chemistry and Biotechnology, Zoology & Chemistry. The program has a six-semester pattern. In the first two semesters, the fundamentals are taught; in the next two semesters, Molecular biology and r-DNA technology, Bioinformatics and Biostatistics is dealt and in the last two semesters, Application part of the program is taught. The course is designed in such away so that it can help the student in understanding the subject there by increasing their interest in learning the practical applicability of the course. The syllabus is designed keeping in view the common core syllabus. The course offered is in the CBCS pattern where80% is the common core syllabus and 20% is the updated under the autonomy. The practical learning is beneficial to the students not only for aspiring the higher studies but also making them eligible entrepreneurship and skill development. The programme also provides employability in large number of firms related to research and development in the field of applied biological science.

PO1: Students develop the global competencies in the area of basic and applied biological sciences.

PO2: To enrich student's knowledge and train them in various branches of Biotechnology such as Genetics, Molecular Biology, Biochemistry, Bioinformatics, Animal Biotechnology, plant Biotechnology, Environmental Biotechnology.

PO3: Students will be able to elaborate the concepts of biochemistry, molecular biology, r-DNA technology with ease to run the experiments.

PO4: Develop the skills to use modern equipment, analyze and solve problems in various branches of biotechnology

PO5: To inculcate scientific attitude in students.



Department of Botany

In B.Sc. Botany Program Syllabus is designed and practiced for more benefits of students More laboratory practical is designed in the syllabus for individual student execution of practical is practiced.

- **PO1:** Can peruse master in Botany and allied subjects.
- PO2: Can work in diagnostic pharmaceutical labs and industry.
- PO3: Can write competitive exams.
- **PO4:** Can know about economic important of plant in daily life.
- PO5: To know about medicinal uses of plants and cure many diseases with no side effects.

PO6: plant uses in Ayurveda and Unani





Department of Chemistry

The Chemistry program is the most important course for life science students and physicals science students as it has multi-disciplinary impact. The program imparts knowledge about basic chemical concept, analytical techniques, physical chemistry. Students understand the concepts of organic chemistry and drug synthesis. The course also covers emerging trends and environmental issues.

BSc Chemistry\FYIC

PO1: To learn basic concepts of Chemistry with special emphasis on chemical properties, reaction mechanisms and analysis.

PO2: Program imparts knowledge of extraction of metals, Synthesis of drugs and Organic compounds, physic-chemical concepts and analytical data evaluation.

PO3: Students learn about Coordination Compounds, Organo Metallic Compounds, including Bioinorganic chemistry. Course imparts knowledge about environmental sustainability with green synthesis.

MSc Chemistry/ FYIC

PO 1: Can pursue higher studies such as PhD in the subject.

PO2: Write all competitive exams.

PO3: Can work as Professional teachers.

PO4: Can work as Research Associates in Pharma companies or in industries.

PO5: Students are made to do projects which help them to do research in future.



Department of Computer Hardware

In B.Sc. Computer Hardware the program syllabus is planned and practiced for more benefit of students. The courses offered by the department helps the students to be a computer star, a fan of math and science, and a problem solver. If you love using computers, but like taking them apart and rebuilding them even more, this could be the career for you. Computer hardware engineers design and develop computer hardware, such as computer chips, circuit boards, modems, and printers. They also test hardware and supervise its installation. This unique feature of the department is that the students in this course learn everything practically and do live projects which helps them in building their career and stand always at the top among their peer group.

PO1: To enable students to install and troubleshoot system hardware

PO2: To impart fundamental awareness on Computer Hardware and Networking

PO3: To enable students to figure out and fix hardware and network issues related to computers and other such devices.

PO4: To enable students, start their own Startup Companies under Central/State government schemes



Department of Commerce

At the end of the B.Com. Programme, graduates will be able to

PO1: Critical Thinking: Apply knowledge of accounting to identify, analyze problems and to provide effective solution in the area of Administration.

PO2: Analytical skill: Ability to design, develop financial statements and the annual reports of the companies

PO3: Employability Skills: Inculcate skills to excel in the fields of Chartered Accountant, Company Secretary, Auditor, Accountant and its Enabled services, Government and Private sectors, Teaching and Research. And also, in all fields of financial transactions that will be tracked by the Finance Officer (for approvals), the Development Officer (for transactions) and the Accounts Officer (for Cross Verification and accounting)







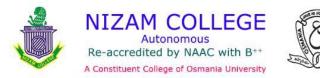
Department of Electronics

In B.Sc Electronics program syllabus is planned and practiced for more benefit of students. Necessary practical experiments are designed in the syllabus; connections of the circuit diagram on the electronic board are individually performed by the student in the practical session. Experiments of practical with circuit diagrams and applications are practiced. Individual projects are done by the students at the end of programme. This is helping to the students for participation in the conferences, seminars, industries and filing patents. With the above practices students are becoming more subject and practical oriented which will help them in their future carrier

PROGRAM OUTCOMES

PO1: Can peruse masters in Electronics and allied subjects.

- **PO2:** Can work in electronic labs and electronic industries.
- PO3: Can write competitive exams.
- **PO4:** Can take up teaching.



Department of English

English serves as a bridge between various academic disciplines. Proficiency in the language allows individuals to explore interdisciplinary studies, seamlessly navigating between subjects and integrating knowledge from diverse fields.

PO1: The Programme is expected to develop an understanding of the English Literature along with language skills.

PO2: They get acquainted with the different forms of poetry, prose, fiction and drama. The courses offered enable the students to get exposed to advanced level of grammatical patterns and usages in English.

PO3: They are able to improve their skills to speak and write English accurately.

PO4: Project in the Sixth Semester is expected help students in exploring an area of research.





Department of Economics

Economics is the study of how people decide to use resources on an individual and a collective basis. It examines the kinds of work people do and how much time they spend doing it. Economics also looks at production, investments, taxation and how people spend and save money. Before you commit yourself to spending time and effort studying economics, it helps to know the advantages of doing so.

PO1: It helps us to understand how an economy is moving as a whole. It is useful in multiple ways to multiple parties.

PO2: Wide phenomena are thoroughly examined such as inflation, price levels, rate of growth, national income, gross domestic product and changes in unemployment.

PO3: Private companies decide the investment area depending on macroeconomics data like inflation or sector growth.

PO4: It helps us understand the functioning of a complicated modern economic system.

PO5: It helps to achieve the goal of economic growth, a higher GDP level, and higher level of employment.

PO6: It helps to bring stability in price level and analysis fluctuations in business activities.





Department of Environmental Science

The basic idea of this subject is to bring about awareness about our environment among the students and to make them realize their duty to protect it. The study will improve the problemsolving capacity of students. The goals of Environmental Education are to develop a world population that is aware of and concerned about, total environment and its associated problems, and commitment to work individually and collectively towards solution of current problems and the prevention of new ones. In Nizam College a number of new objectives and guiding principles for developing environment of education at all levels in both formal and non-formal levels are formulated.

PO1: Acquire an awareness of and sensitivity to the total environment and its allied problems.

PO2: Gain a variety of experiences and acquire a basic understanding of the environment and its associated problems.

PO3: Acquire a set of values and feelings of concern for the environment and the motivation for active participation in environmental improvement and protection.

PO4: Acquire skills for identifying and solving environmental problems.

PO5: Evaluate environmental measures and education programmes in terms of ecological, economic, social, aesthetic and educational factors.

PO6: Provide an opportunity to be actively involved at all levels in working towards the resolution of environmental problems.

PO7: Have an appropriate set of professional skills to ensure a productive career.

PO8: Work effectively in a multi-disciplinary environment.

PO9: Exhibit positive attitudes and values toward the discipline, so that they can contribute to an increasingly complex and dynamic society.





Department of Geography

PO 1 – Role of Humans on the Planet – An understanding and acknowledgment of the threats that endanger the earth's natural systems. This helps in further realization of the significance of anthropogenic causes of many of the disasters and threats that puts life on this planet on the edge. Enabling the students to understand that man and his ingenuity has given rise to resource and its utilization; which has sprung from man's need for a better life.

PO 2 – Scientific and Critical Thinking – Development of knowledge, skills and holistic understanding of the discipline among students. Encouragement of scientific mode of thinking and scientific method of enquiry in students. This goal is achieved through the regular field excursions conducted by the Department to various parts of India extensively and the writing of a report/thesis on it.

PO 3 – Disaster Response and Management – Students become equipped with the ability to respond to both natural and man-made disasters and acquire management skills. This is attained through the curriculum by studying and analyzing hazards, disasters, their impact and management.

PO 4 – Interdisciplinary Research Skills – Ability to undertake research in interdisciplinary studies and problems or issues beyond the realm of what strictly comes under the purview of geography. This is possible because of the varied nature of the curriculum that encompasses the study and analyses of concepts of sub-disciplines and allied disciplines of Geology, Seismology, Pedology, Hydrology, Environmental Studies, Disaster Management, Resource Management and Conservation, Regional Planning and Development Studies etc.





Department of Genetics

The undergraduate syllabus in Genetics is designed to offer classical, basic and advanced information in the field of genetics without undue importance to any specific branch. As the course is being offered with microbiology and chemistry, due care is taken to avoid redundancy. While framing the curriculum, a vertical movement in the field is kept in mind so that they can take up postgraduate or integrated doctoral programme. The subject being one of the most debated, with advancement of knowledge rapidly progressing, due changes are periodically incorporated by revising the syllabus. Beside classical, focus is on molecular and microbial genetics with due lab work. Biostatistics and population genetics being offered as a core paper, while the electives are framed as plant and human genetics.

PO1- To develop problem solving abilities based on probability by making them solve the problems based on inheritance mechanism.

PO2- To build the necessary skill and analytical abilities for developing solutions for problems based on inheritance.

PO3 -To make understand the molecular basis of inheritance.

 $\mathbf{PO4}$ -To helps the students to have a thorough understanding of the molecular biology of gene.

PO5 -To inculcating scientific attitude.

PO6- To make understand the evolutionary aspects of genes in population.

PO7-To train students for applications of molecular biology tools in genetics engineering.

PO8-To help students to show interest in entrepreneurship and skill development





Department of History

PO1 To provide the students a basic methodology of studying and writing History

PO2 To provide the students the scientific way of learning history.

PO3 To provide the students with the opportunity to pursue courses that emphasizes quantitative and theoretical aspects of History.

PO4 To provide students with the opportunity to focus on applied issues in History.

PO5 To provide a well-resourced learning environment for History.

M. A. History

PO1. Student will learn basic narrative of historical events, chronology, personalities and turning points of the history of the India, World and Telangana.

PO2. Build critical ability through competing interpretations and multiple narratives of the past, offer multi-causal explanations of major historical developments based on contextualized analysis of interrelated political, social, economic, cultural and intellectual processes.

PO3. Evaluation of historical ideas, arguments and points of view, presentation of a summary of a topic in an organized, coherent, and compelling fashion orally or written.

PO4. Construct original historical arguments based on primary or secondary source material and ability to identify and describe the contours and stakes of conversations among historians within defined historiographical fields.

PO5. Students will acquire basic historical research skills, including, effective use of libraries, archives, and databases.





Department of Marketing

The programme aims to produce critical, reflective marketers and emphasizes the integration of theory and practice with the skills and knowledge required by employers.

By the end of the programme, students will be able to:

PO1: Critically evaluate the key analytical frameworks and tools used in marketing

PO2: Apply key marketing theories, frameworks and tools to solve Marketing problems

PO3: Utilize information of a firm's external and internal marketing environment to identify and prioritize appropriate marketing strategies

PO4: Exercise critical judgement through engagement and reflection with existing marketing literature and new developments in the marketing environment

PO5: Critically evaluate the marketing function and the role it plays in achieving organizational success both in commercial and non-commercial settings

PO6: Evaluate and act upon the ethical and environmental concerns linked to marketing activities



Department of Mathematics

E Contraction

PO1: Be able to analyze, test, interpret and form independent judgments in both academic and non-academic contexts

PO2: Recognize and appreciate the connections between theory and applications

PO3: Have an appropriate set of professional skills to ensure a productive career

PO4: Work effectively in a multi-disciplinary environment

PO5: Exhibit positive attitudes and values toward the discipline, so that they can contribute to an increasingly complex and dynamic society

PO6: Communicate effectively with whom they are interacting and the society to make effective presentations, and give and receive clear instructions

PO7: Function effectively as an individual, and as a member or leader in diverse teams.





Department of Informatics

BCA

P01: Understand, analyze and develop computer programs in the areas related to algorithm, web design and networking for efficient design of computer-based system.

P02: Work in the IT sector as system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.

P03: Apply standard software engineering practices and strategies in software project development using open-source programming environment to deliver a quality of product for business success.

M.Sc. (IS)

P01: An ability to apply knowledge of computing, mathematics, and basic sciences appropriate to the discipline.

P02: An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution

P03: An ability to function effectively on teams to accomplish a common goal

P04: An understanding of professional, ethical, legal, security and social issues and responsibilities f. An ability to communicate effectively with a range of audiences

P05: An ability to use current techniques, skills, and tools necessary for computing practice.

P06: An ability to identify and analyze user needs and take them into account in the selection, creation, evaluation, and administration of computer-based systems

P07: An ability to effectively integrate IT-based solutions into the user environment





Department of Microbiology

PROGRAM OUTCOMES

In B.Sc. Microbiology program syllabus is designed and practiced for more benefit of students. More laboratory practicals are designed in the syllabus; individual student execution of practical is practiced. Practical experiments with real time samples and applications are practiced. Individual innovative projects are carried out by the students. This is helping participation of students in the conferences and filing patents. With the above practices students are becoming more subject and practical oriented which will help them in their future endeavor.

PO1: Can peruse masters in Microbiology and allied subjects.

PO2: Can work in diagnostics labs and industry.

PO3: Can write competitive exams.

PO4: Can take up teaching.







Department of Persian

This course introduces students to the Persian language while, developing proficiency in reading, writing, comprehending and speaking modern Persian, through communicative methods. Students acquire an understanding of Grammer that is well integrated into their language usage. Dialogs and reading texts are geared toward facilitating practical mastery of basic skills.

To enable students to

PO1: Know the alphabets of the language and structure formation of word and sentences.

PO2: Know the grammar of the language and its uses.

PO3: Know the simple word translation, process and its Technique.

PO4: Know the life and poetry of the authors





Department of Political Science

The BA Political Science program covers a comprehensive set of courses ranging from the study of political theories, thoughts, institutions and functions- international, national and local.

PO1: Through the study of important philosophical, theoretical and ideological foundations in the study of political science, students are expected to develop critical thinking and arguments.

PO2: Study of political systems around the world will not only give knowledge but will also train students towards comparative approaches and methods.

PO3: Students will have an understanding on the international political system as it is and as it ought to be.

PO4: Learning the fundamentals of Indian government and politics is important for Indian students and has a job-prospect particularly in civil services and other competitive examinations.

PO5: By studying organizational and administrative behavior in public administration, students are expected to acquire leadership and management skills.

PO6: The study of human rights will empower students to stand for the protection and promotion of basic human rights and thus contribute to national and international peace.

PO7: Students will learn the principles of equality and think for the equal participation of women in the political system.

PO8: Students will have understanding of India's bilateral relationship with other countries as well as the country's role in global political regimes.

PO9: The study of political sociology will develop an inter-disciplinary approach particularly with sociology to seek and analyze the relationship between politics and sociology.







Department of Psychology

Department of Psychology was established in the year 1963, and a Counselling Centre has been established in the year 1984. Centre for Psychological testing and counselling was sanctioned under the centre of potential excellence (2005). It is a three-year full-time programme following Semester system. Psychology is one of the major optional subjects offered at the undergraduate level with other 4 combinations. This course is aimed at introducing students the fundamental processes underlying human behavior and familiarize them with a few emerging branches of psychology such as Developmental Psychology, Social Psychology, Abnormal Psychology, Health Psychology, Child Psychology, Educational Psychology, Adolescent Psychology. Along with the theory the psychology course includes Practical, Statistics and Research Project.

PO1. To teach the undergraduates the basic principles of Psychology which helps them to be future professionals.

PO2. To provide counselling services and career guidance to the students based upon aptitude interest and personality profiles.

PO3. To conduct awareness programs and workshops on various psychological issues.



Department of Sociology

PO1: Understand the basic concepts in Sociology and develop an understanding about macro and micro perspectives in Sociology

PO2: Comprehend the various features of Indian Society and culture including unity in diversity; Indian social structure and understanding rural, urban and tribal India

PO3: Develop an understanding of various aspects of doing social science research with focus on methodology; making research proposal, doing fieldwork and report writing

PO4: Analyze the critical aspects of Sociology of Development and Planning, the development theories and the Planning system for development

PO5: Understand the characteristics, social structure, institutions and problems of tribal community in India.

PO6: Develop an understanding about various aspects of Industry; Population studies

PO7: Understand the philosophical foundations of Sociology and its application

PO8: Evaluation of Development Policies





Department of statistics

Students who finish their under graduation in statistics as one of the main subjects acquire good knowledge in all aspects of statistical data analysis and hence offer competitiveness in grabbing Govt jobs at clerical to executive level.

Also, they find opportunities in computer software, banking and data analytics. Most of the students who wish to continue further studies shall be ahead in getting seats in their P.G programs.

PO1: Acquiring enough knowledge of Statistical data analysis for various types of data (Secondary & Primary) in terms of measuring central value, spread and shape of the frequency distribution.

PO2: Learning foundation concepts of probability and its complexities.

PO3: Learning foundation concepts of random variable univariate and bivariate probability distributions and various definitions

PO4: Learning mathematical expectation and various statistical measurements in terms of expectation for univariate and bivariate probability distributions and various generating functions

PO5: Learning discrete distributions and continuous distributions understanding various properties of these probability distributions.

PO6: Understanding correlation and regression and principal of least squares, multiple and partial correlation coefficients for three variables.

PO7: Analysis of categorical data association and independence of attributes.

PO8: Understanding sampling distributions and exact sampling distributions viz t, F and chi-square.

PO9: Understanding theory of estimation, criterion of good estimator viz unbiasedness, consistency, efficiency and sufficiency.



Department of Sanskrit

Sanskrit is a very rich language of IE language group. Sanskrit is a medium to know about ancient Indian history, culture, religion, social life through its text. The academic programme of both Second language and Classical language courses are designed not only professional skill but also develop a deep understanding of rich heritage and dynamic prevalent scenario of India through various Sanskrit texts

PO1. Develop a strong concept of ancient Indian history, philosophy and literature.

PO2. Enhance communication skills-Listening, Speaking, Reading, Writing.

PO3.Students will be able to write Devnagari scripts which provide them geographical knowledge to read out the script of modern languages like Telugu and Hindi.

PO4. Increase in depth knowledge of the Core Areas of the subject.

PO5.Students will demonstrate the skill needed to participate in conversation that builds knowledge with collaboration.

PO6. Reasonable understanding of multi-disciplinary relevance of literature of Sanskrit like poetry and prose., Philosophy, Grammar, Kavya, Drama, Smriti Sastra etc.

PO7. To make them eligible for higher education.

PO8. Develop research aptitude and independent thinking.

PO9. After becoming graduate students can apply in the field of UPSE, WBCS etc. And also, after post-graduation they can apply against teaching posts in schools, colleges and other educational institutions.

PO 10: Students learn Relationship between Regional Languages and Sanskrit, and impact of Sanskrit language on regional languages vocabulary and grammar.





Department of Telugu

Autonomous

PROGRAMM OUTCOMES

PO1. ఏ సమాజానికైనా బాష జీవం వంటిది. అటాంటి బాషను లిఖిత రూపంలో విద్యార్థులకు అందించటం వలన సామాజిక ప్రయోజనం నెరవేరుతుంది

PO2. సాహిత్యం సామాజిక (పతిబీంబం. సమాజంలోని (పాకృతిక, మానవ వికాస దశలను లిఖిత రూపంలో సాహిత్యం ఒక తరం నుంచి మరో తరానికి అందిస్తుంది.

PO3 ఆధునిక సమాజాలలో 1్రింట, ఎల్స్ కానిక్ మీడియ, సోషల్ మీడియ 1్రాధాన్యత విపరీతంగా పెరిగింది. తెలుగు భాషను చదువుకున్న విద్యార్థులకు ఈ అన్నిరకాల్ మీడియాలో ఉపాధి అవకాశం దోరుకుతుంది.

PO4 రచయితలకు సమాజంలో మేధోపరమెన గౌరవం ఉంటుంది. దాదాపుగా రచయితలందరూ సాహిత్య అధ్యయనం వలననే తయారవుతారు. కనుక తెలుగు సాహిత్యాన్ని బోధించడం వలన విద్యార్తులు రచయితలుగా మారే అవకాశం ఉంది.



Department of Zoology

PO1 - Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms

PO2 – Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment

PO3 – Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.

PO4 – Understands the complex evolutionary processes and behavior of animals

PO5 – Correlates the physiological processes of animals and relationship of organ systems

PO6 – Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species

PO7 – Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicompost preparation.

PO8 – Understands about various concepts of genetics and its importance in human health

PO9 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties

PO10 – Apply the knowledge and understanding of Zoology to one's own life and work

PO11 – Develops empathy and love towards the animals