Konkan Education Society's
Anandibai Pradhan Science College,
Nagothane , Tal –Roha ,Dist. Raigad
(Maharastra) 402106

PROGRAMME OUTCOMES

PO

PROGRAMME SPECIFIC OUTCOMES

PSO

&

COURSE OUTCOMES

CO

PROGRAMME: B. Sc. CHEMISTRY

PROGRAMME OUTCOMES (PO)

PO-1	B.Sc. Chemistry curriculum is so designed to provide the students a comprehensive understanding about the fundamentals of chemistry covering all the principles and perspectives.
PO-2	Identify and evaluate current technologies and assess their applicability to address individual and acquire organizational needs.
PO-3	Student will ingrain conceptual and critical thinking aptitude.
PO-4	Ability to apply knowledge of science and skill.
PO-5	The practical exercises done in the laboratories impart the knowledge about skills of handling the corrosive, poisonous, explosive and carcinogenic chemicals making themselves employable in any kind of chemical industries.
PO-6	Participative and experimental learning enables students to work with team's spirit and collaborations.
PO-7	Student will become expertise in their specific subject and curricula.
PO-8	An ability to assist in the creation of an effective project plan.
PO-9	Find gainful employment in respective industry or government sector as well as find employment in academic system .
PO-10	Students able to use modern library referencing and retrieval method to obtain information about topics.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO-1	The students will understand the existence of matter in the universe as solids, liquids, and gases which are composed of molecules, atoms and sub atomic particles.
PSO-2	Students will learn to estimate inorganic salt mixtures and organic compounds both qualitatively and quantitatively using the classical methods of analysis in practical laboratory.
PSO-3	Students will grasp the mechanisms of different types of reactions both organic and inorganic and will try to predict the products of unknown reactions.
PSO-4	Students will learn to synthesize the chemical compounds by maneuvering the addition of reagents under optimum reaction conditions.
PSO-5	Students will learn various techniques to perform scientific experiments as well as accurately record and analyze the results of such experiments.
PSO-6	Student will learn the usage of analytical instruments, select, and apply appropriate techniques and resources for the analysis.
PSO-7	Extensive laboratory and classroom work will skill the students with in problem solving, critical thinking and analytical reasoning as applied to scientific problems.
PSO-8	Students will understand the applications and impact of the chemistry in societal, and environmental contexts, and demonstrate it's knowledge and need for sustainable development.
PSO-9	Students will learn to apply ethical practices such as limited and safe use of hazardous chemicals, responsibility toward environmental and health safety.
PSO-10	Students will be able to work in team and thus get prepared as a perfect professional chemist with respect to knowledge, responsibility and teamwork.

COURSE OUTCOMES (CO)

CO -1	To understand the core concept of organic chemistry.
CO -2	Be able to draw the structure of organic compounds accurately from molecular and empirical formula.
CO -3	Use IUPAC nomenclature rules for naming of organic compounds.
CO -4	To understand preparation method for alkenes, alkynes & alkyl halides.
CO -5	The student will able to understand the chemistry of many heterocyclic products, carbohydrates, amino acids, peptides, proteins & lipids used as drug and food.
CO -6	Student will able describe different quantitative and qualitative methods of analysis of organic and inorganic substances.
CO -7	Student will able to recognize structure of acid halides, esters, amides and acld anhydrides.
CO -8	Student able to write mechanism of different chemical reactions.
CO -9	To understand basic features of spectroscopy & ability to explain common terms in NMR spectroscopy such as chemical shift, coupling constant, anisotropic effect & describe how they are affected by molecular structure.
CO -10	Student will able to state the basic principle of electrochemistry.
CO-11	Student will able to drive Integrated rate expression of Zero order, first order, second order & third order reaction.
CO -12	Student will able to separate mixture of components in organic chemistry which having wide scope in research and forensic sciences.
CO-13	Able to understand the basic concepts of thermodynamics.
CO-14	The student will be able to classify matter by Its state and bonding behaviour using periodic table as a reference.
CO-15	Student will able to state the principle of alkali metals, alkaline earth metals, halogens and Nobel gases.

CO-16	Understand the difference between metals, non- metals & metalloids.
CO-17	The student will able to explain the fundamental concept in co-ordination chemistry of transition metals.
CO-18	Able to understand different types of titrations, determination of equivalence points and their applications in various fields.
CO-19	Student will able to understand general properties and applications of s-block, p-block & d-block elements.
CO-20	Understand to write nomenclature, classification, properties & preparation of co-ordination compounds.
CO-21	Student will able to understand different chromatographic techniques used in pharmaceutical and chemical industries.
CO-22	Student will be skilled in problem solving, critical thinking & analytical reasoning as applied to scientific problem.
CO-23	Student will able to explain large scale preparation and properties of industrial products such as cement, POP, Sodium hydroxide, sodium carbonates and bicarbonates.
CO-24	Students will able to identify and solve chemical problems.
CO-25	Student will able to understand different activities of drug molecules & its uses
CO-26	Students will able to know different coloring groups such as chromophore and auxochrome
CO-27	Students will gain the knowledge of variety of drugs diseases and remedies.
CO-28	Student will able to explain large scale preparation and properties of industrial products such as paracetemol, aspirin, fluorescene etc.,
CO-29	Student will able to demonstrate methods of drugs analysis and pharmaceutical calculations.

Principal
PRINCIPAL
K.E.S. A. P. Science College
Nagothane, Dist. Raigad (M.S.)

PROGRAMME: B. Sc. -COMPUTER SCIENCE

PROGRAMME OUTCOMES (PO)

PO-1:	A degree in B.Sc.(Computer Science) puts a good platform for fundamentals of ComputerScience.
PO-2:	A degree in B.Sc.(Computer Science) puts a good platform for fundamentals of Computer Science.
PO-3:	Computer Science having a dynamic subject, demand frequent updation of syllabi and syncthe student with need of industry.
PO-4:	An ability to apply knowledge of computing and mathematics appropriate to the program'sstudent outcomes and to the discipline
PO-5:	An ability to analyze a problem, and identify and define the computing requirementsappropriate to its solution.
PO-6:	An ability to design, implement, and evaluate a computer-based system, process,component, or program to meet desired needs.
PO-7:	An understanding of professional, ethical, legal, security and social issues andresponsibilities.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO-1:	All theoretical concepts are implemented in practical which make a student industry ready.
PSO-2:	Content of the course prepare a student for self-entrepreneurship.
PSO-3:	The syllabi of the course is a good platform for higher level course in computer science.
PSO-4:	The course is designed to support automation and digitization in all walks of life.
PSO-5:	Ability to apply the knowledge gained during the course of the program from Mathematics, Basic Computing, Basic Sciences and Social Sciences in general and all computerscience courses in particular
PSO-6:	To identify, formulate and solve real life complex engineering problems faced inindustries and/or during research work with due consideration for the public health and safety, inthe context of cultural, societal, and environmental situations.
PSO-7:	Ability to provide socially acceptable technical solutions to complex computer scienceengineering problems with the application of modern and appropriate techniques for sustainabledevelopment relevant to professional engineering practice.

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PROGRAMME: B.Sc. INFORMATIONT ECHNOLOGY

PROGRAMME OUTCOMES (PO)

PO-1:	Apply the knowledge of Technology, Mathematics, Networks and computing in the coreinformation technologies
PO-2:	Identify, design, and analyze complex computer systems and implement and interpret theresults from those systems.
PO-3:	Analyze the local and global impact of computing on individuals, organizations, and society

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO-1:	Understand, analyze and develop computer programs in the areas related to web design,desktop applications, mobile applications and networking for efficient design of computer basedsystems of varying complexity.
PSO-2:	Apply standard Software Engineering and Software Project Management practices andstrategies in software project development using open-source programming environment to delivera quality product for business success.
PSO-3:	Be acquainted with the contemporary issues, latest trends in technological developmentand thereby innovate new ideas and solutions to existing problems.

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PROGRAMME: M.Sc. ORGANIC CHEMISTRY

PROGRAMME OUTCOMES (PO)

PO-1:	M.Sc. Organic Chemistry Course is so designed to provide the students a comprehensive understanding about the fundamentals of chemistry covering all the principles and perspectives.
PO-2:	The branches of Chemistry such as Organic Chemistry, Inorganic Chemistry, PhysicalChemistry and Analytical Chemistry expose the diversified aspects of chemistry in Part-I of theCourse. Part-II of the Course includes the topics related to organic chemistry where the students experience a broader outlook of the subject.
PO-3:	The syllabi of the M.Sc. Organic Chemistry course are discretely classified to give stepwise advancement of the subject knowledge right through the two years of the term.
PO-4:	The practical exercises done in the laboratories impart the students the knowledge about various chemical reagents and reactions. Thereby, the skills of handling the corrosive, poisonous,explosive and carcinogenic chemicals making themselves employable in any kind of chemicalindustries. They are also trained about the adverse effects of the obnoxious chemicals and the firstaid treatment. Students are also imparted knowledge about separation of organic mixtures, Characterization of organic compounds by chemical tests and spectral analysis, preparation of organic compounds and purification by advanced methods.
PO-5:	Students have a project work where they perform the research work. Understanding andlearning various technical, analytical and safety aspects of the concerned topic related work.
PO-6:	Trough Industrial visit, students learn the difference between conventional departmental laboratory and its nature of work and R & D laboratory of industry. Students prepare a dissertation report with complete follow up of research methodology.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO-1:	Global level research opportunities to pursue Ph.D. Programme targeted approach of CSIR– NET examination.
PSO-2:	Enormous job opportunities at all level of chemical, pharmaceutical, food products lifeoriented material industries
PSO-3:	Specific placements in R & D and synthetic division of polymer industries & AlliedDivision
PSO-4:	Discipline specific competitive exams conducted by service commission

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PROGRAMME: B.C.A.and M.C.A. (YCMOU-Distance Education)

PROGRAMME OUTCOMES (PO)

PO-1:	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
PO-2:	An ability to design, implement, and evaluate a computer-based system, process,component, or program to meet desired needs.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO-1:	Successful career :The ability to employ modern computer language environment's and platforms in creating innovative career paths to be entrepreneur
PSO-2:	Competent in emerging Trends: Apply software design and development practices to develop software application in emerging areas such as cloud and High-performance computing Data analytics and Cyber security.

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