2.6 B.Com.:

Student Performance and Learning Outcomes

1. Understand theoretical & practical subjects of the syllabus.
2. Understand Accounting skill and its practical applicability.
3. Understand how to prepare a project.
4. How to conceptualize and execute a strategy.
5. Correlate the learning skills and its practical applicability in the corporate sector.

2. 6. 1 Program outcome / Specific outcome / Course outcome

1. Students will learn the accounting skills.
2. Students will learn the management skills.
3. Students will learn how to conceptualize and

2.6.1 Program outcome / Specific outcome / Course outcome

1. Students will learn the accounting skills
2. Students will learn the management skills
3. Students will learn how to conceptualizes and execute a project plan.
4. Students will understand the marketing skills.
5. Students will learn soft skills and communication skills.
6. Students will learn behavioral skills.
7. Practical internship helps them to understand how to work in corporate sector.
8. Students will learn to demonstrate their abilities in managing and leading corporate organization in the future.
9. Students will learn human resources skills
10. Students will understand and learn financial skills.

Dr Utpal chakraborty

15/12/21

PROGRAM OUTCOME

1. Software developer
2. Database Programmer
3. Computer operator
4. Web developer
5. Network administrator
6. Database Administrator
7. Data Analyst

PROGRAM SPECIFIC OUTCOME

1. Operating system (Students can know about the operating system & can use various applications of it).
2. Numerical Techniques (Students can solve the problems of mathematics ~~related programming~~)
3. Relational Database Management (To create and manage the database)
4. Introduction to IT (Students awareness about IT hardware and software)
5. C language (Students are able to write programs in c language)
6. Communicative English(Enhancement of students communication skills)

COURSE OUTCOME

- CC-1 (Information technology)

The students will be able to use computers to store, retrieve, transmit, and manipulate data.

- CC-2 (C Programming)

The students will be able to write programs for different applications.

- CC-3 (Digital Electronics)

The students will be able to know about the circuit structure of computer.

- CC-4 (C++ Programming & Data Structure)

The students will be able to write programs related with data structure.

- CC-5 (Operating System)

The students are able to know about the functionality of operating system and principle behind the operation of system & their uses.

- CC-6 (RDBMS)

The students will be able to create, update, administer and interact with a relational database.

- CC-7 (Numerical analysis)

Students will be able to deal with all aspects of the numerical solutions of the problems.

B.Sc. Chemistry

COURSE OUTCOMES

After completion of these course students able to:

CC-1 (Inorganic Chemistry):

1. Know about the concepts of Atomic structures, Periodic Properties, Chemistry of Noble Gases.
2. To learn depth knowledge about chemical bonding, s-block elements and P-Hock elements, VSEPR Theory, Werner's Theory, Shapes of molecules.

CC-2 (Physical Chemistry)

1. To learn the Basic mathematical understand about liquid state, Gaseous stand, different expression like vander waal's eqn, Shordinger's eqn., etc.
2. Know the meaning of various terms involved in Thermodynamics & Thermochemistry and solve the numericals related to this concepts.

CC-P-1 (Inorganic Chemistry Practical)

1. To understand the volumetric analysis and its methods of determination.
2. To study the Qualitative Analysis of inorganic salts mixture containing two basic and one acid radicals.

CC-3 (Organic Chemistry)

1. Understand the evidences, reactivity and mechanism of various elimination & substitution reaction & know about the classification, nomenclature ,hybridisation of organic compounds.
2. To learn the difference between sterieo & structural isomerism and its types, alkanes & cycloalkanes, alkenes, cycloalkenes, Dienes & Alkynes.

CC-4 (Physical Chemistry)

1. To know about the solid state, colloidal state, catalysis and about depth knowledge of chemical kinetics and chemical equilibrium.

CC-P-2 (Physical Chemistry Practical)

1. They determine the surface tension, viscosity of liquids & rate constant for the hydrolysis of ester.

CC-5 (Inorganic Chemistry)

1. To learn about Oxidation & Reduction and Chemistry of Lanthanide elements, Actinides elements & 1^{st}, 2^{nd}, 3^{rd} transition series.
2. Know about Werner's Co-ordination theory and define the various terms related to Co-ordination compounds.

CC-6 (Organic Chemistry)

1. To learn depth knowledge about Arenes, Aromaticity, Alkyl & Arylhalides, alcohols, phenols, ethers and epoxides, aldehydes and ketones.

CC-7 (Physical Chemistry)

1. State and apply the laws of thermodynamics-II, Phase equilibrium.
   They can calculate the dipole moment, refracting index, molecular reactivity etc.

C-P-3 (Organic Chemistry Practical)

1. They can prepare the different organic compounds & they easily detect the functional group and elements present in organic compounds.

CC-8 (Inorganic Chemistry)

1. Learn about the depth knowledge of Acid & Base, Non-Aquous Soloutions.
   Properties of solutions, hard & soft Acid & Base and Metal-ligand bonding in transition metal complexes.

CC-9 (Organic Chemistry)

1. Know about the nomenclature, bonding, preparation, properties and uses of carboxylic acids their derivatives, organic compounds of Nitrogen.
2. To learn about the electromagnetic spectrum, absorption spectra, measurements of specta, Hook's Law, selection rules, intensities, bands of different spectrum.

CC-10 (Physical Chemistry)

1. To apply the concept of surface chemistry, adsorption, its application, types, Gibb's adsorption equation.
2. Learn the depth concept about electrochemistry I & II, Arhenious theory, Kohlrausch's law. Transport number, Debye' Huckel equation, degree dissociation, Nerst equation, Ostwald dilution law & its uses etc.

CC-P-4 (Inorganic Chemistry)

1. They can determine ferrous iron using K2Cr2O7 solution, estimate of Copper by using Sodium thiosulphate solution.
2. To understand the concept of Qualitative Analysis & determine acid & Basic radicals of the given inorganic salt.

CC-11 (Organic Chemistry)

1. Know about the complete concept of spectroscopy, Organometallic & Organo Sulpher Compounds, nomenclature, Chemical reactions and formations of this compunds.
2. Learn about Hetrocyclic compounds & organic synthesis via enolates, mechanism of electro philic substitution reaction and its mechanisms.

CC-12 (Physical Chemistry)

1. To learn about solutions, dilute solutions, colligative properties and know the depth concept about photochemistry, elementary idea of quantum mechanics, Black body radiation, de-Broglie equation etc.

DSE-II (Bio-organic Chemistry)

1. Know about enzymes, its mechanisms, clinical uses, coenzymes & its action.

CC-P-5 (Organic Chemistry)

1. They can prepare different Organic compounds, they can identify of mono-function organic compounds & mono saccharides.

DSE-P-1 (Physical Chemistry Practical)

1. They determine the heat of neutralization, partition coefficient of solute of two immiscible liquids, water equivalent of calorimeter, molecular weight of liquids by Victor Meyer's method.

CC-13 (Inorganic Chemistry)

1. They learn about magnetic Properties of transition metals, electronic spectra of metal complexes, Organometallic chemistry, silicones and phosphozones and apply the concept of thermodynamic & kinetic aspects of metal complexes.

CC-14 (Organic Chemistry)

1. Know about carbohydrates, Amino acids, peptides, Proteins and Nucleic acids polymerization reaction and synthetic polymer and dye.

DSE-3 (Spectroscopy) (Physical Chemistry)

1. Learn depth knowledge about IR, Raman, Visible, Electronic and NMR Spectroscopy and their applications in various fields.

CC-P-6 (Inorganic Chemistry Practical)

1. Know about Gravemetric estimation of Ag^{+}, Ni^{2+}, Cl^{-}, So^{42-}. Prepare of Potash alum, chrome alum, sodium nitropruside, determination of zinc perlitre in the given solution using EDTA solution.

DSE-P2 (Organic Chemistry Practical)

1. Prepare Methyl orange, determine Molecular weight of organic acid by silver salt method, determination of food adultrants. Percent purity of glucose.

B.Sc. Mathematics

PROGRAM OUTCOMES

1. Students will be aware of and able to develop solution oriented approach towards various social issues.
2. Scientific temper will be developed in the students.
3. Students will acquire basic Practical skills and technical skill knowledge along with main knowledge of different subjects in the Science stream.
4. Students will possess basis subject knowledge required for higher studies, professional and applied courses like Management studies, law etc.

PROGRAM SPECIFIC OUTCOMES

1. Student is equipped with mathematical modeling ability, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
2. Students should be able to apply their skills and knowledge that is translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or technique in order to process the information and draw the relevant conclusion.
3. Enabling students to develop the positive attitude towards mathematics as an interesting and valuable subject of study.
4. A students should able to record the basic facts about mathematics and should be able to display knowledge of convention such as notations, terminology.

COURSE OUTCOMES

C01: To learn basic matrix algebra and method to find solutions to system of linear equations. Also to learn eigen values and eigen vector of matrix.
To study concept of sequence and series and hence find sum of infinite terms with different method.

C02: To learn basic properties of real numbers and its problems in tangent and normal, curvature and asymptotes etc.
To learn analytical geometry of 2D which include study of conics, planes, parabola, ellipse and hyperbola.

C03: To learn basic properties of area, length, volume and sphere and solve their problems.
To learn analytical geometry of 3D which include study of shortest distance, sphere, cone and cylinder.

C04: To learn statistics which include study of mean, median and mode.
To learn LLP which include study of simplex method, assignment and transportation.

C05: To learn methods of solve linear differential equation with const. co-efficient.
To apply motion of derivative in mean value theorem and also in higher order derivative which arise in all applied science.

C06: To study algebraic structure "Groups" in details which is useful in study of Rings, Normal Subgroup.

C07: To learn the concept of sets, relation and function and Boolean Algebra.
To learn basic concept of metric space include to study of uniform continuity convergence.

C08: To learn basic algebraic properties of complex numbers and limits and continuity of complex function.

To learn concept of friction, kinematics in 2D, rectilinear motion.

C09: To study the algebraic structure rings in details through various examples, rings of polynomials and its factorization over a field.

To learn the concept of improper integral, duplication formulae etc.

C10: The students can able to solve C++ programming.

To learn to apply the various numerical techniques for showing real life problems.

C11: To learn the concept of condition for equilibrium of force in three dimension, Null lines, stable equilibrium.

To study the concept of kepler's laws of motion, Newton's law of gravitation, 2D motion in rigid body etc.

C12: Student can learn concept of fluid pressure, centre of pressure, trust, Bernoulli's theorem.

The student can able to solve singular point, Bessel's equation, Legendre equation, Hyper geometric function.

C13: To learn to evaluate the Fourier series of various even and odd function.

C14: To understand the concept of ordinary differential equation in more than two variables.

Learn the method to solve first order partial differential equation.

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B.Sc. Environment and Water Management

PROGRAM OUTCOME

After completion of the program the students have:

1. Acquired fundamental knowledge of different aspects of environment and local, regional and global environmental problems.
2. Develop environmental water quality monitoring skills including conduct of experiments and data analysis.
3. Obtained exposure through industrial visits to the environmental pollution control and treatment technologies.
4. Acquired knowledge on energy resources and their management.
5. Ability to develop as leaders in understanding and addressing complex environmental issues from a problem oriented interdisciplinary perspectives.
6. Develop empathy for various life forms and appreciate the various ecological linkages within the web of life.

PROGRAM SPECIFIC OUTCOME

After completion of each program the students will:

1. Understand the basic concepts of environments and its components along with their interactions through study of Ecology, Biodiversity, Environmental chemistry, Remote Sensing and GIS, Meteorology, Hydrology.
2. Understand the different kinds of pollutions and their sources and preventions through study of environmental pollution.
3. Analyze and determine pollution using environmental Analytical techniques in laboratory.
4. Understand different waste water treatment technologies to find the solution and their applications in management of waste water.
5. Understand the principles and application of remote sensing & GIS.
6. Understanding disaster management and occupational health and safety.
7. In depth knowledge of environmental economics.
8. Determine the environmental impacts due to different developmental projects and find solutions to eliminate these impacts.
9. Through industrial visits and practical knowledge, student can identify a particular environmental problem, review the literature for finding the gaps, can develop research methodology and find a suitable solution and acquire the ability to communicate and effectively.

COURSE OUTCOMES

After completion of the course the students will be able to:

1. Articulate the interdisciplinary context of environmental issues.
2. Identify and justify key stakeholders in humanities and environmental sciences that need to be a part of sustainable solutions.
3. Formulate an action plan for sustainable alternatives that integrate science, humanist, and social perspectives.
4. Predict the consequences of human actions on the web of life, global economy and quality of human life.
5. Develop critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and sustainable development.
6. Acquire values and attitudes towards understanding complex environmental-economic social challenges, and participating actively in solving current environmental problems and preventing the future ones.
7. Adopt sustainability as a practice in life, society and industry.
8. The students passing B.Sc. in the subject Environment & Water Management have the opportunity of job and scopes for higher and research in the field of effluent treatment plants, industries, companies, factories, MoEFCC, MNRE, CPCB, SPCB, CSIR laboratories, environment monitoring projects, NGO's and various sectors related to the field of environment.

BBA

PROGRAM OUTCOME

1. Provide basic understanding about management studies.
2. To train students in communication skills effectively
3. To train them for self employment and provide skills for it (entrepreneurial skills)
4. To recognize and solve business problems in an ethical manner.
5. To make students specialize in area of management like HR, Finanace, Operation & marketing system.

PROGRAM SPECIFIC OUTCOME

1. Understand the corporate world.
2. Analyze the theoretical knowledge with organization setting or management.
3. Dynamic & complex working environment of business.
4. Analyze the various financial & accounting concept.
5. Analyze the various aspect of business research in the area of Marketing, HR, Finance & IT.

COURSE OUTCOME

1. Corporate live project.
2. Project internship & industrial training.
3. Teachers' leadership qualities.
4. Entrepreneurship development.
5. Exposure to industries. (Applied learning)

CARRER PROSPECT

1. Company Secretaryship.
2. Chartered Accountant
3. Master of Commerce.
4. Master of Business Administration.
5. Business Accounting & Taxation.
6. Institute of lost and work account.
7. Certified management accountant.

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BCA

PROGRAM OUTCOME

BCA vocational educational program has vivid outcomes, as after successful completion of the course, the student is able to get into any technical computer related job like software developer, Engineer, Programmer, Web Designer, Analyst or a Data Scientist with a slight hard work in the specialization field.

PROGRAM SPECIFIC OUTCOME

Programming (Java. C++ and C) :-

These fields of study helps the student to get into the field of software development and programming.

Web Development (HTML, CSS , XML, JavaScript, JSP, ASP.net) :-

These fields of study are responsible if the student has an aspiration of getting into web development domain.

Database & SQL :-

Database and SQL are the papers which help the student if the targeted area is Database administration.

Analysis (SAD, Software Engineering):-

With these papers, students get the knowledge to develop an efficient software free from flaws or to change the traditional system to Information system or to be a debugger.

COURSE OUTCOME

After successfully completing the course, the student has a vast ocean of opportunities, such as the student can directly get on to working as professionals mentioned in the earlier slide, or they can build their knowledge further by doing specializations in the field of computers such as :-

- Data scientists
- Database Administrator
- Software/Data Analysts
- Robotics & Automation, etc.

Another realm in which the student can enter is the field of higher studies, such as:-

- MCA
- MSc-IT, etc.

P. Trivedi
06/03/2021