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## PROGRAM OUTCOME AND COURSE OUTCOMES FOR

### **ALL PROGRAMS OFFERED BY BASANTI DEVI COLLEGE**

### UNDER GRADUATE DEPARTMENTS

### COURSE OUTCOME: BENGALI HONOURS

Bengali literature is very rich from different aspects. It is our proud possession. Many famous writers and poets have created immortal pieces in Bengali. Rabindranath Tagore, being a writer in Bengali earned world fame and was awarded Nobel for literature. Bengali literature is much needed in the field of language and literature.

- The humane aspect and the finer senses get widened in the close touch of literature.
- Bengali language is very rich. The evolution of language through the ancient and the medieval ages and its present position has fully been described in the Bengali language and literature.
- The history Bengali literature given us ideas about the economic, social and political history of Bengal.
- The Bengali literature has given birth to a good number of drama and innumerable poems which are transformed into performing art.
- Students of Bengali literature and language are taught proof reading, reporting, etc. which they can use as their profession in future.
- Students of Bengali literature can take up writing as their profession. Journalism is also another important profession which the students can take up.
- Bengali literature has contributed to the world cinema with its many rich creations.
- Majority of Bengali novels deal with psychological aspects of human being which help the students in their grooming.

#### Outcomes of the course: 3 years degree course in CHEMISTRY HONOURS

Three years undergraduate course in Chemistry honours prepares students for career **as professionals or researchers** in the field of Chemistry by developing knowledge base in theory as well as expertise in laboratory works.

The main objective of this course is to increase the employability quotient of the students by preparing them with the technical and theoretical aspects of this continuously evolving subject.



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- The principles of physical chemistry and how to apply it in experimental procedures of general Chemistry will be understood after the end of the three years course. Special emphasis to be given to thermodynamics, electrochemistry and chemical kinetics.
- > The cutting edge field of Quantum Chemistry will be understood by the students.
- The chemistry of elements which make up all the material world will be understood from the perspective of the periodic table.
- The students will be acquainted with all the instrumental procedures used to analyze both quantitatively and qualitatively the chemical components of an unknown material. This includes basic procedures like titration, salt analysis along with pHmetry, potentiometry, conductometry polarimetry and spectrophotometry.
- The students will have an awareness of green chemistry and ecologically sustainable chemical procedures.
- Students will have a strong foundation in the fundamental and application of current organic chemistry.
- Students will have understanding of chemical and molecular processes that take place in organic chemical reactions.
- Students will be able to design and carry out synthesis of different organic compounds in pure form in a well designed fashion, keeping the focus on principles for effective synthetic strategies, stereoselectivity, catalysis.
- > Students become able to use spectroscopic methods in identification of complicated molecules.
- > Understanding of biomolecules like amino acid and carbohydrates.

Outcomes of the course: 3 years degree course in CHEMISTRY GENERAL

Students pursuing this stream of study are specially equipped with the know-how and training required to find jobs in industry and heath care sections

- > The basic principles of physical organic and inorganic chemistry are understood by the students.
- Chemical equations representing both inorganic and organic reactions could be framed and understood by the students.
- > Chemical formulae of household chemical like naphthalene will be known.
- The main working theory behind industrial process like petroleum industry, fermentation industry plastic and textile industry along with glass and ceramics will be understood.
- The basic tenets of Environmental chemistry involving Carbon-cycle, Phosphorus cycle and Nitrogen cycle will be understood.

#### **Department of Communicative English Course outcomes**



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- 1. Prepare students for the professional corporate as well as government job market
- 2. Increase self confidence- (with special emphasis on Speaking and presentation )
- 3. Enhance communication skills- LSRW- Listening, Speaking, Reading and Writing.
- 4. Prepare them for higher education .
- 5. Produce successful graduates
- 6. Develop research aptitude and independent thinking.

#### Course Outcome of Computer Science General (CMSG)

- This Under Graduate pass course gives a crisp, clear as well as comprehensive idea about the subject in 1<sup>st</sup> year which includes General Concepts about Computer Hardware, Application software etc.,Computer Architecture and Organization, Digital Logic Design, Operating System.
- 2. In the 2<sup>nd</sup> year this course generates the idea about algorithm and DATA STRUCTURE which have a big application in many subjects to compare the system based on complexity.
- 3. This course also generates the idea about Software Engineering ,going through this course a student understands easily the industry standards models of Software ,Software Requirement and Specification ,Software Maintenance etc.
- 4. Apart from theory there is equal emphasis or weightage given on practical which includes DATABASE MANAGEMENT SYSTEM and C programming language primarily through practical sessions, along with theoretical classes, which have a direct application in the software industry.
- 5. In 3<sup>rd</sup> year this course contains Communication and Computer Networks which gives the idea about the Analog and Digital Communication, Transmission Media ,Audio and Video Communication System, Architecture OSI,TCP/IP,LAN-Ethernet and Token Ring Topology, the Internet, E-mail Architecture and services etc.
- 6. In the 3<sup>rd</sup> year practical, students learn about programming VISUAL BASIC, primarily through practical sessions, along with theoretical classes in between. Basic Features; building objects with classes, operations with objects, class libraries. Multitasking and Multithreading applications; software design involving forms, objects, events, functions, procedure and methods(32 bit programming). ODBC driver; Front and development for database. MFC based multimedia applications.
- 7. Lastly there is a UNIX /LINUX and SHELL Programming primarily through practical sessions, along with the theoretical classes.
- 8. After the completion of the course ,the students concerned can excel in the software industry. Surely, they may come up with flying colours as academicians. Such is the dynamism as well as multilayered



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attributes of this course, students having like mathematics/statistics honours can draw perceptible, tangible benefits from this course.

### Outcomes of the course: 3 years degree course in ECONOMICS HONOURS

An economist must be ' mathematician, historian, statesman, philosopher, in some degree----- as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician"----so remarked John Maynard Keynes, the great British economist.

Three Year undergraduate Course in Economics Honours prepares students for career as professionals or researchers in the field of Economics. It helps students in the following ways

PSO1. To understand the theories of exchange among rational economic agents in variant market structure.

PSO2. To analyze macroeconomic policies including fiscal and monetary policies of India.

PSO3. To get an idea of the behavior of Indian and World economy.

PSO4. To determine economic variables including inflation, unemployment ,poverty, Gross Domestic Product, balance of payment using statistical methods.

PSO5. To understand the behavior of financial and money markets and perform cost benefit analysis for investment decisions.

PSO6. To develop knowledge about prospects of growth through specialization and exploration of market via trade.

Three Year Undergraduate Course in Economics General helps students in the following ways

PSO1. To get preliminary idea of economic theory.

PSO2. To study the behaviour of Indian and World economy.

PSO3. To know about statistical tools required for determining several economic variables.

PSO4. To have basic knowledge about different schools of economic school of thought such as

Classical school and Keynesian school.

PSO4. To look into gender related issues in contemporary India.

### **Program Specific Outcomes of EDUCATION HONOURS**



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PSO1: Understand the meaning, aims, functions& role of Education.

- PSO2: Explain the India & Western schools of Philosophy & their impact on education.
- PSO3: Discuss the contribution of great educators like Rousseau, Froebel, Montessori, Bertard Russell, John Dewey,

Rabindranath Tagore & Swami Vivekananda.

- PSO4: Understand the meaning & different perspectives of Psychology.
- PSO5: Explain Piaget's theory of Cognitive development.
- PSO6: Write down the stages of moral development according to Kohlberg.
- PSO7: Discuss the different theories of intelligence.
- PSO8: Understand the salient features of education in Ancient, Medieval& British period.
- PSO9: Mention the recommendations made by different Education Commissions after Independence.
- PSO10: Discuss present classification of mental diseases & their treatment.
- PSO11: Write down the different tools & techniques for conducting guidance and Counselling services.
- PSO12: Application of various statistical measures in analysis & interpretation of educational data.
- PSO13: Explain Bloom's Taxonomy of educational objectives with suitable examples.
- PSO14: Compare various issues of the Indian Educational System with USA.

#### Outcomes of the course: 3 years degree course in English HONOURS

1. Students are taught English communication which is required for jobs in public sphere especially in the Communication media.



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- 2. They are trained in writing Book Reviews that prepare them for jobs in publishing houses.
- 3. They learn Film Review that helps them in working as Film journalists.
- 4. They learn Editing and Proof -reading that prepare them for jobs as journalists.
- 5. They learn appreciation of English Literature and History.

#### **Course outcome-HISTORY (Honours and General)**

Unlike before history today, is no more considered as a mere study of past deeds of kings and emperors. On the contrary, in accordance with the present concept of history, courses are designed to create a sense of the past, in a more comprehensive manner; history now emphasises on the economy and culture of the distant and not so distant past so that empires do not seem to have been created in a vacuum; so that the reader while having a more complete sense of the time under discussion can logically explain the facts presented. History, now therefore, does not appear as conglomeration of discrete facts, the facts rather appear before the reader as a series of logically interconnected eventswith a definite context.

Further, writing history today underscores the process reconstructing the past with complete reference to the sources of information; more, the historian is now expected to explain the reasons for a arriving at a conclusion, in other words, a mere description of events does not suffice any more.

The course that we teach our undergraduate students not only satisfies these conditions it moreover does not restrict itself to Indian history alone. To give the students a more complete sense of the past histories both of neighbouring countries and those of more distant geographic areas are included in the syllabus .

It is thus expected that a student who has successfully completed her undergrad studies with history as a subject of study would:

- Know the 'Meaning of History', a meaning that includes the people of the land as much as the rulers.
- They would be able to know their glorious past and would be able to form a logical connection between the present and the past.
- They would therefore, be able explain much of the present social practices and would precisely know the proper context of their present existence.
- They would also learn how to trace back known historical facts—things they had learned in school—to the sources of information. This on the other hand, would teach and interest some of them to conduct research and write academic Papers in future.

#### Course outcome Human rights (general)



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The course is comprised of four papers and covers the different area of human rights. The following topics are covered in the four consecutive papers:

- Introduction to Human Rights-Origin and historic development of Human Rights. Theories and Perspectives UN and Human rights. Laws, Mechanisms and Instruments Human Rights movements and achievements Right to development and Human Rights
- Human rights and Environment, Education and Health Human Rights and Consumer rights in India Human rights Democracy and Peace, Terrorism and Militarization
- Human Rights in India Reference to Constitution of India Human Rights and National and State Human Rights commission, their composition powers and functions. Human rights and Terrorism Religion, Communalism and Human Rights Human Rights and Disadvantaged People-Women, Children, Displaced Persons and Ethnic Minorities, Indigenous People and Dalit and Disabled.
  - (Theoretical) 70 marks Research Methodology and Human Rights
    Documentation and Report Writing
  - > Project-work-field-work based on Report related to Human Rights.

### **Outcome of the B.Sc. Mathematics Honours Course of the University of Calcutta**

Students taking the three year B.Sc. Mathematics Honours Course of the University of Calcutta become versatile and proficient in the theory and application of the various topics taught and develop an excellent ability to apply the methods learnt to the solution of problems of a wide variety related to these topics.University examinations are held at the end of each academic year for assessing the proficiency and skills acquired by the students.



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This course is an essential pre-requisite for the more advanced courses offered by the University of Calcutta as well as other Indian and International Universities. Thus, developing the ability to pursue advanced studies related to Applied Mathematics, Pure Mathematics and Computer Applications is a major outcome of the B.Sc. Mathematics Honours Course.

The Syllabus covered in the B.Sc. Mathematics Honours Course of the University of Calcutta is a very well-planned and comprehensive one. In support of what has been said above, we briefly list below, the outcome of the course at the end of the three academic years.

By the end of the third year, students become familiar with the theory and application of:

- 1. Classical, Abstract and Linear Algebra to the solution of algebraic linear, non-linear and transcendental equations and systems of simultaneous linear equations.
- 2. Analytical Geometry of 2 and 3 Dimensions to the concept and use of vectors as a mathematical tool; the different types of coordinate systems
- 3. Differential Calculus of a single and several variables in investigating the behaviour of a wide range of sequences, series (finite and infinite) the differentiation of functions, determination of extrema.
- 4. Integral Calculus and Riemannian Integration for the evaluation of indefinite, definite and improper integrals and special functions.
- 5. Ordinary and Partial Differential Equations and the theory of Integral Transforms.
- 6. Operations Research, Linear Programming and Game Theory
- 7. Analytical Statics to studies of rigid bodies in equilibrium under coplanar and non-coplanar force systems.
- 8. Analytical Dynamics of a particle and rigid bodies.
- 9. Hydrostatics
- 10. Probability and Statistics
- 11. Computer Programming in FORTRAN/C and BASIC with hands-on training and Boolean Algebra
- 12. Numerical Methods with hands-on training

### **Course Outcome Department of Philosophy (Honours)**

• Students learn net surfing in order to get acquainted with different new writing materials.



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- They learn how to access books in e-library.
- Also learn to prepare essay type answers by consulting several books on the topic.
- They attend and participate in Departmental seminars thereby preparing themselves for seminar presentations.
- Participate in debate and quiz related to Honours subject and thus develop their power in comparative studies.
- Participate in group discussions in order to enhance their capacity to compete in job oriented courses.
- Psychology is a part of Honours Course they develop their choice for building up career as psychological counselor

#### **Course Outcome Department of Philosophy General Course**

- Students learn net surfing in order to get acquainted with different new writing materials.
- Learn how to access books in e-library.
- Learn to prepare essay type answers by consulting several books on the topic.
- Psychology is a part of General Course they develop their choice for building up career as psychological counsellor.

### Three years Physics (Honours)Course outcome

- Upon completion of the B. Sc. Honours Physics Course students will have following opportunities and skills.
- PSO1. This course will develop in students various interest in the understanding of fundamental laws of physics, principles and theories along with their applications.
- PSO2. Honours in Physics require high level of competence in Mathematic s, so students develop skill in analysing complex physical problems by using mathematical tools to solve them.
- PSO3. Students acquire efficiency in the use of computers for data acquisition and data analysis in experimental investigations.
- PSO4. This course alsocreates an interest in higher studies and research in various branches of Physics.
- PSO5.A student studying Physics will also develop logical and analytical thinking abilities.
- PSO6.Students have hands-on experience with some of the experimental aspects of modern (twentieth century and beyond) physics, electrical, classical mechanics and optics and, in the process, it helps to



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deepen their understanding of the relationship between experiment and theory. Students are able to see the relationship between experiments and equations and see how they apply to the real world.

- PSO7.Students perform simple but interesting experiments in the laboratory to verify various concepts of physics that they have learnt in the classroom lectures. Some important topics taught in Syllabus but could be perceived by the students better in the laboratory.
- PSO8.Students have career opportunities in various academic institutions like schools, colleges or research institutes.
- Three Year Undergraduate Course in Physics General Outcome
- PSO1.Physics generates fundamental knowledge needed in today's technological environment.
- PSO2.It provides trained personnel required to take advantages of scientific advances.
- PSO3. Students achieve computational ability.
- PSO4. Apart from these, a student have bright future in Indian Administrative Services, Banking Services and various State and Central Government Services where Physics can be chosen as one major subject and in all these fields competence in Physics is required.
- Learning about the histories of geographic areas other than their own would make them better world citizens, with better understanding of other cultures.
- Going through a rationally planned course of history would also enable them to distinguish between myth and history.
- These being the grand and general outcome, we must not lose sight of the fact that at a more specific and concrete level the course would also prepare them for academic profession as well as administrative jobs that require some thorough knowledge of the culture and tradition of the Land.

### **Course outcome-POLITICAL SCIENCE**

- familiarity with different approaches to the study of politics and an ability to apply these to contemporary collective and political problems, and political behavior
- an ability to formulate and construct logical arguments about political phenomena and an ability to evaluate these through empirical and theoretical methods
- an understanding of how political institutions emerge, how they operate, how they interact with their external environment, and how they shape individual and collective behavior



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- knowledge of basic factual information about politics within an area of specialization including political behavior, comparative politics, international relations, political theory and methodology.
- Comprehend the basic structures and processes of government systems and/or theoretical underpinnings.
- Analyze political problems, arguments, information, and/or theories.
- Apply methods appropriate for accumulating and interpreting data applicable to the discipline of political science.

### **COURSE OUTCOME -Department of Psychology**

The subject Psychology is a subject of self education through which students can learn to understand and enhance their overall wellbeing along with academic achievements

#### **Outcomes:**

- **Opportunity for doing Masters:** In spite of being general degree course, the subject provides opportunity for doing Masters in Psychology from various universities like IGNOU, Neotia University, Adamas University, Amity University etc..
- Self Management: Studying the undergraduate course of Psychology can help the students in dealing with challenges like every day life stress, anxiety and depression and all other mental health problems.
- **Applicability:** The practical module of the course provides a platform for the students to develop important clinical insights which can help them becoming future mental health care professionals.
- Spreading of Mental Health Awareness both on individual and community level: Studentscan develop knowledge in understanding and analysing human behaviour both on individual as well as social levels.Such analyses of human mind both on individual and social contexts not only provide knowledge for social growth but also dissemination of mental health awareness to ensure wellbeing of the society in general and individual in particular.



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**Contribution to improve the future of the society:** Improving and spreading mental health awareness can actually contribute towards the overall growth of human life.

#### **Programme Specific Outcomes of SANSKRIT**

Sanskrit is the pathway which connects the dimmed past of ancient India to the present digital India of 2017. In fact, historically, Indian society and culture are unique and this contextually specificity of Indian social realities could be grasped through Sanskrit texts.

The academic programme, both Honours and General courses enable the students not only to acquire the following professional skills but also develop a deep understanding of rich heritage and dynamic prevalent scenario of India through various texts in different disciplines of ancient pedagogy, composed in Sanskrit . A student pursuing this course has

- advanced knowledge of ancient Indian philosophy, literature and history.
- strong communicative skill in Sanskrit developed through the add-on 'Spoken Sanskrit Course' conducted by Rastriya Sanskrit Sansthan,New Delhi.(Basanti Devi College is the first 'Non-formal Sanskrit Education Centre' of Kolkata, affiliated to Rastriya Sanskrit Sansthan,New Delhi).
- command over Devanagari script, which provide them the paleographical knowledge to read out the script of modern languages like Hindi and Marathi.
- practice of textual analysis of Sanskrit and Vedic Sanskrit texts endowed him/her to develop a critical perspective to assess existing research through careful reading, analysis and discussion.
- the ability to apply relevant theoretical perspectives in Sanskrit philosophical and literary works to contemporary topics and also to develop a scientific approach towards analysis of modern texts.

#### PROGRAM SPECIFIC OUTCOMES (PSO) DEPT. OF SOCIOLOGY

Sociology can be defined as a study of society or social life, of group interaction and of Social behavior. Infact, sociology can be also conceived as a discipline that aims to connect everyday life practices or micro level interactions to the various aspects of macro level knowledge formation. It encompasses all other aspects of society likely history, politics, economics etc. However, Sociology, as compared to other social sciences, is a young discipline especially in India. Since its formal advent within the Indian academic world in 1919, (as compared to its development in European and American society in the 17<sup>th</sup> century), sociology in India has strived to develop the ability to grasp the myriad realities (both historically and from present scenario) that exists within and outside its society.



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Therefore, the academic programme of both Honours and General courses are designed to induce the aptitude and skills among students required for analyzing the intricate details of the society as well as develop the sociological insight necessary for constructing better future and reality for human world. The programme specific outcomes of the above mentioned courses are:

- To develop 'sociological insight' for understanding behaviour, social roles, interactions among and everyday life practices of human beings. Also to understand the interactions of human beings with the larger society.
- Observe societies, their functioning (both one's own society and other societies) as an outsider that reduces biasness and helps to address issues effectively.
- Acknowledge and develop myriad perspectives in viewing the society and its functioning (both at the micro and macro level).
- Understand the functioning of various social institutions and how it fabricates unequal realities for people.
- Understand one's own society, its culture, institutions, and patterns of interactions. Also understand other cultures, their way of life, elicit views of others and develop and practice 'cultural relativism' as part of their life.
- Understand and compute basic statistical calculations necessary for social science, which in turn help students to analyze social phenomena.
- Field work following survey method help students to interact with people from other communities and elicit their views that in turn make the students aware of diverse social problems of other people as well as address them through immediate or long term solutions.
- Develop the skill to write a dissertation addressing 'social problems' based on field work.
- Become analytical towards social phenomena, social practices and human behaviour.
- Develop a critical orientation towards social realities.
- Provide suggestions for improvement or change of the present social practice.

#### The Three Year Undergraduate Course in Statistics Honours prepares the students for

choosing their career as professionals or academicians in this field. Moreover it helps the students in the following ways

- To get an idea regardingdevelopment of the subject.
- Toknow the nature and classification of data along with its distribution and properties involving different measures, tools and techniques.



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- To briefly analyze bivariate and categorical data.
- To know the sequential development of probability theory, its analysis for univariate and bivariate distribution.
- To familiarize with linear algebra so that one can relate it to the theories developed in Analysis of Variance (ANOVA).
- To get an idea about the importance of Statistics for the development of our country and how the statistical system in India works.
- To develop the concept of statistical inference and the importance of sampling distribution in this regard.
- To understand the theories of large sample and multivariate distribution.
- To develop the knowledge of applied statistics through Population Statistics, Design of Experiments, Index Number, Statistical Quality Control (SQC), Time Series Analysis and Sample Survey Methods.
- To apply the theoretical knowledge in the practical context with computation using the statistical software MINITAB and programming language C.

# The Three Year Undergraduate Course in Statistics General helps the students in the following ways

- To know the classification of data and its representation along with some important measures to derive certain properties for univariate, bivariate and multivariate cases briefly.
- To understand and analyze probability theory (in brief).
- To develop the concept of sampling distribution and application of statistical inference, viz., Point estimation, Interval estimation and Hypotheses testing.
- To get an idea about application of large sample theory.
- To analyze data in applied area, viz., Economic Statistics, Time Series Analysis, Population Statistics, Statistical Quality Control, Sample Survey Methods and Design of experiments.

### Outcomes of the course: 3 years degree course in WOMEN'S STUDIES General

Student Learning Outcomes

Students will:

> Define and Evaluate gender as a social construct.



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- > Compare and contrast different feminist and methodological approaches.
- > Engage in promoting social justice and Human Rights.
- > Achieve a knowledge base about women's contribution in History.
- > Develop multiple skills toward social change.
- Conduct research on gender issues.
- > Develop multiple skills for working in different institutions.

### POST GRADUATE DEPARTMENT

#### Political Science (Course Outcome)

The PG department of Political Science being affiliated to the University of Calcutta follows the most accredited syllabus of the university.

- 1. The comprehensive syllabus of the department is aimed towards imparting in-depth subjective and objective knowledge of the discipline to its students.
- 2. The semester structure is practically modelled for timely commencement and completion of the Master's Degree Course so that the outgoing batches can sit for entrance examinations of higher education degree courses like M.Phil and Ph.D.
- 3. The course with a significant thrust on Indian Constitution, Indian Politics and Government, Public Administration and International Relations orients its students towards national and state level competitive examinations such as NET, SET, CSC, PSC, WBCS and IAS.
- 4. Special Lectures by eminent scholars and professors are regularly conducted in the department to expose students to specialised subject knowledge.
- 5. Students are made to attend and participate in National and International Seminars/Conferences in regular intervals and thereby made accustomed to inter-disciplinary academic culture.
- 6. Students are trained to develop their writing skills through guided Term Papers.
- 7. The Post Graduate Section maintains a Wall Magazine wherein students get a chance to make poster presentations and write critical essays on contemporary issues, events and themes of high relevance.
- 8. The students of the department are trained to make academic presentations using power point (PPT) as regular curriculum exercise. This practice is aimed to help develop the skill of public speaking among the students.
- 9. The students are also provided Career Counselling for GRE/GMAT and various Mock Tests.

### The course outcomes of MA in English are as follows:

- 1. Students learn to analyse literary texts critically.
- 2. They also develop a reading habit.
- 3. Their creative writing skills and critical thinking skills are enhanced by the end of the course.
- 4. The students also become more sensitive and aware of social issues.