## **Kharagpur College**

## Learning Outcomes of different Programmes and Courses

## **Topics in this Document**

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## **Programme Outcomes of B.A Honours Courses**

- a) Development of problem-solving ability: Students graduating from this college under B.A. Hons programme are expected to develop analytical skills that will enable them to solve the problem related issues that he/she faces during next level of studies.
- b) **Development of communication skill:** Students, although at the initial stage after getting admission might be facing difficulty in their language skill, but when they complete the programme, they are expected to become pretty able to communicate their understanding in the subject.
- c) Ability of critical evaluation: Students of this programme become capable to ask questions, critically appreciate a scholarly presentation of any form and debate upon the issues which invite cross discussions.
- d) **Social responsibility:** Students graduating from this college in this programme become able to relate the social and national issues to what they have learnt from their books and in the classroom situations.
- e) **Skill development due to hand on experiment:** Project work and field study help them gain experience to make them correlate between the ground reality with classroom teaching.
- f) **Destining for higher education:** Students become highly cognizant of the expansion of the learning in their respective fields which enables them to get admitted to the different state and central universities for masters courses. Some of them may opted to join in the B.Ed. courses.
- f) **Confidence generation:** Students completing the programme become confident in the sense that they feel they are employable.
- g) **Development of research aptitude:** This college trains the students to undertake primary level of research work and thus they become motivated for advanced research when they go for higher studies.
- h) **Better citizen of the future:** Through the programme, students are instilled the broader values of life that help them become responsible citizens of the future.

## **Programme Outcome of B.Sc. Honours Courses**

- a) **Very rigorous lab exposure:** After the students pass out this programme become adapted to solving rigorous laboratory related problems.
- b) Familiar with the recent developments of science & Technology: Along with regular classroom teaching the students are exposed seminars, workshops and special lectures to make them acquainted with different recent trends of scientific works happening in and around.
- c) **Job oriented students:** Many students find suitable jobs in different arears like chemical & Pharmaceutical industries, academies, Govt and public sectors etc Students become workable force and thus if they want, they can opt for job and/or such training courses.
- d) **Destining for higher education:** Students become highly cognizant of the expansion of the learning in their respective fields which enables them to get admitted to the premier institutes of the country like IITs, IIMs, BHU, IISER and different state and central universities & abroad.
- e) **Development of research aptitude:** An aptitude to research is also stimulated in the minds of this budding generation. Many of the students after passing BSc Hons course opt to take up some projects in good laboratories of the country and many opt to choose research after their masters.
- g) **Holistic development:** One most significant outcome of the programme is the inculcation of life among the learners that enable them.
- h) **Expertise in computer skills:** During the course of studies the students become quietly acquainted with the different softwares, programming languages, mathematical modellings, computational methods. These will help them in future.
- i) Development of leadership quality and ability to work is a team man: As these students have to spend a pretty good amount of time in the laboratories where they work in groups, the ability of working in teams is automatically inherited within themselves, and this immensely help them adopt to different new environmental situations either in jobs or during higher education or research. Good leadership qualities are also generated in some students which help them overcome several awkward situations in future.

## Programme outcome of B.Com Honours

### Financial Accounting:

- a) To enable the students to learn principles and concepts of Accountancy.
- b) Students are enabled with the Knowledge in the practical applications of accounting.
- c) To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting.
- d) The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects.
- e) To find out the technical expertise in maintaining the books of accounts.
- f) To encourage the students about maintaining the books of accounts for further reference.

### Marketing and Salesmanship

- g) This course enables the students, the practical knowledge and the tactics in the marketing.
- h) To study and critically analyze the basic concepts and trends in Marketing.
- i) To aware of the recent changes in the field of marketing.

### **Computer Concepts and applications**

- j) To make students familiar with computer environment & operating systems
- k) To introduce students with accounting packages like tally.
- 1) To develop skill and knowledge among students in applications of internet in education of commerce.

### **Business Mathematics and Statistics**

- m) To use and understand useful functions in business as well as the concept of EMI.
- n) To understand the different concept of population and sample and to make students familiar with Calculation of various types of averages and variation.
- o) To learn the applications of matrices in business.
- p) To understand the students to solve LPP to maximize the profit and to minimize the cost.
- q) To use regression analysis to estimate the relationship between two variables and to use frequency distribution to make decision.
- r) To understand the techniques and concept of different types of index numbers.

### **Business Environment and Entrepreneurship**

- s) To make the students aware about the Business and Business Environment.
- t) To develop entrepreneurial awareness among students.
- u) To motivate students to make their mind set for thinking entrepreneurship as career.

## **Banking and Finance**

- v) To familiar the students with the fundamentals of banking and thorough knowledge of banking operations.
- w) To build up the capability of students for knowing banking concepts and operations.
- x) To aware the students about financial structure, system and the basic principles of financial discipline and decisions.
- y) To make understandable to the students regarding the new concepts introduced in the banking system.
- z) To make the students aware about the Primary and Secondary market operations and the basic analytical tools for the measurement and comparison of performances of different investment options and opportunities.

## **Programme outcome of BCA Honours Programme**

## This Programme is targeted to:

- > To provide thorough understanding of nature, scope and application of computer and computer languages.
- To develop interdisciplinary approach among the students.

## After the completion of the course, a student is able:

- To pursue further studies to get specialization in Computer Science and Applications,
- Economics, Mathematics, business administration
- To pursue the career in corporate sector can opt for MCA, MBA.
- To Work in the IT sector as a programmer, system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.
- To work in public sector undertakings and Government organisations.
- To teach in schools and colleges.

## Programme Outcome of M.A. Courses

- a) Students progressing through M.A. Programme from this institution develops an academic aptitude and research-oriented mind which enables them to question, criticize and look thoroughly into various areas that core academics has to offer. The courses foster critical and analytical thinking, incorporation of novel ideas that further paves the path for academic programs like M.Phil and Ph.D.
- b) Students are encouraged and motivated to participate in national and state-level examinations like NET and SET which are in-roads into long-term academic careers. The courses also pave way for careers like school teaching be it Government, Private or International Schools.
- c) These programs make it learners accomplished to judgmentally appreciate an academic demonstration of any sort through continuous participation in seminars, lectures and invited talks thereby fostering their critical and analytical mind.
- d) This programme also inspires the students from to actively participate in different socio-economic-cultural activities of which they have been theoretically taught in classroom situation. e) Project work and field study provide them with an encouragement for self-learning and introduces them to various other cultures, values and societal systems which in turn acts as onus in cultivating them into enriched people who can contribute into the society in the long run through the gained spectrum of knowledge.
- e) Students passing out from this programme turn out to be employable not only in academic field but in diversified areas such as government and semi-government jobs, MNCs, advertising, publication houses, newspapers to name a few. Thus, they tune themselves to pave into the multifarious avenues of life.
- f) This programme further motivates the students to commence systematic and structured research in several and unexplored arena of knowledge and expanding and enriching the subject in the long run.
- g) The most significant outcome of the programme is that the students imbibe greater values of life which in turn make them better human begins when they pass out from here.

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF B.A. HONOURS IN BENGALI AND M.A. IN BENGALI PROGRAMMES

## **Program Specific Outcomes**

## Of

## The students graduating with the Degree B.A. (Honours) in Bengali and those studying GE & AEC Courses in Bengali

- 1. Students are expected to develop the Language skill to communicate both in writing and verbally.
- 2. It is expected that at the end of the programme students will get a fair knowledge of the development of Bengali literature vis-a-vis its culture— how it emerged, evolved and sustained despite several upheavals.
- 3. After Graduating they are expected to grow the sense of art and literature that will enable them to understand better the human social and cultural relationships.
- 4. Students will also become able to appreciate the art and literature.
- 5. Students will also become able to undertake some hands-on experimentation with cultural growth and trends of their own locality.
- 6. Students are also expected to learn analytical skills while learning the appreciation ability.
- 7. Students will able to catch a wide overview about the origin and development of Bengali language and literature.

## **Program Specific Outcomes**

## Of

## The students graduating with the Programme M.A. in Bengali

- 1. Students are expected to learn the higher studies in Bengali language and literature.
- 2. Students are expected to learn the reading ability of old manuscripts.
- 3. Students will also learn the relation between other Indian literatures and Bengali.
- 4. Students will also learn diverse cultures—folk and tribal culture.
- 5. Students will demonstrate critical and analytical skills in the Interpretation and evaluation of literary texts.
- 6. Students will acquire general linguistics theory and fundamental understanding of core areas of language analysis including phonology, morphology, syntax and pragmatics.
- 7. Students will acquire a good knowledge on the nature of language of the place of language study on society
- 8. M.A Bengali students gets an opportunity to research in this field to acquire M.Phil and Ph.D. degree.

**Programme: Bengali Honours** 

Course Outcomes
<u>SEMESTER: 1</u>

Course ID	Course Title	Course Outcome		
CC-1	বাংলা ভাষার উদ্ভব ও পরিচয়	ক্রমবিবর্তনের মধ্যে দিয়ে আধুনিক বাংলা ভাষার উদ্ভব, বিকাশ, বাংলা শব্দভাণ্ডার, ব্যাকরণ, ধ্বনিতত্ত্ব, শব্দার্থতত্ত্ব, উপভাষা এবং লোকভাষা সম্পর্কে বিস্তারিত পাঠদান এই পাঠক্রমের মূল উদ্দেশ্য। সৃজ্যমান বাংলার প্রকীর্ণ নিদর্শন এবং সেইসঙ্গে আদি ও মধ্যযুগের বিভিন্ন সাহিত্যিক নিদর্শন, যেমন— চর্যাপদ, শ্রীকৃষ্ণকীর্তন, অনুবাদ সাহিত্য, চৈতন্যজীবনী সাহিত্য, পদাবলী সাহিত্য, মঙ্গলকাব্য, নাথ সাহিত্য, বাউল গান এবং আরও অন্যান্য সাহিত্যিক নিদর্শনের মধ্যে অষ্টম থেকে অষ্টাদশ শতাব্দী পর্যন্ত বাংলার ইতিহাস, সংস্কৃতি, আর্থ-সামাজিক-রাজনৈতিক অবস্থা এবং সামগ্রিকভাবে মানুষের জীবনচর্যার বহিঃপ্রকাশ ধরা পড়েছে		
CC-2	বাংলা সাহিত্যের ইতিহাস (প্রাচীন ও মধ্যযুগ)	এই পর্বের পাঠক্রমে। এই Core Course দুটির মধ্য দিয়ে ছাত্র-ছাত্রীরা ১. বাংলা ভাষার উদ্ভব, ইতিহাস ও ঐতিহ্য সম্পর্কে পরিচিত হয়। ২. বাংলা ভাষার ব্যাকরণ, বাংলা ভাষাভাষী অঞ্চলে ব্যবহৃত বিভিন্ন উপভাষা এবং সেইসঙ্গে লোকভাষা সম্পর্কেও বিস্তারিত ধারণা লাভ করে। ৩. প্রাচীন ও মধ্যযুগের সাহিত্যিক নিদর্শনগুলির মধ্যে দিয়ে বাংলার ইতিহাস, সংস্কৃতি, আর্থ-সামাজিক-রাজনৈতিক অবস্থা এবং সেইসঙ্গে বাংলা সাহিত্যের প্রাচীন ঐতিহ্যের সঙ্গে পরিচিত হয়।		
GE-1	GE1T : বাংলার ভূ-খণ্ড, জাতির উৎপত্তি ও ধর্ম ও সংস্কৃতির ইতিহাস এবং লোকসাহিত্য ভথবা বাংলা ভাষার বিভিন্ন স্তর ও বাংলা ভাষাচর্চা	সাম্মানিক বাংলা ব্যতীত কলা বিভাগের অন্য কোনো শাখা থেকে আগত সাম্মানিক প্রথম পাঠপর্যায়ের ছাত্র-ছাত্রীদের এই দুটি পাঠক্রমের মধ্যে থেকে যে কোনো একটিকে নির্বাচিত করে পাঠদান করা হয়। এর মাধ্যমে ছাত্র-ছাত্রীরা ১. বাংলার ভূ-খণ্ড, জাতির উৎপত্তি ও ধর্ম ও সংস্কৃতির ইতিহাস সম্পর্কে অবহিত হয়। ২. লোকসাহিত্য ও লোকসংস্কৃতির মধ্যে ধরা থাকে যে কোনো জাতির অতীত ঐতিহ্য। ফলে ছাত্র-ছাত্রীদের সেই ঐতিহ্যের সঙ্গে পরিচিত হওয়ার সুযোগ থাকে। ৩. বাংলা ভাষার উদ্ভব, ইতিহাস সম্পর্কে বিস্তারিত ধারণা লাভ করে। অর্থাৎ কলা বিভাগের অন্য কোনো বিষয় নিয়ে পাঠরত সাম্মানিক পাঠপর্যায়ের ছাত্র-ছাত্রীরা তাদের নিজস্ব জাতিসত্ত্বা, ভাষা, বাংলার প্রাচীন ইতিহাস, ধর্ম-সংস্কৃতি এবং লোকসংস্কৃতি সম্পর্কে পরিচিত হয়ে ওঠে।		
AECC-1	MIL (BENGALI) : বাংলা ভাষা প্রসঙ্গ, অনুবাদ ও কথন-দক্ষতা	প্রথম পাঠপর্যায়ের ঐচ্ছিক পাঠক্রমের অন্তর্গত Ability Enhancement Compulsory Course-টির মাধ্যমে শিক্ষার্থীদের মধ্যে সাহিত্যবোধ সৃষ্টি, লিখন ও কথন দক্ষতার উৎকর্ষতা এবং অন্য ভাষা থেকে বাংলা ভাষায় অনুবাদ দক্ষতা অনেকাংশে বৃদ্ধি পায়।		

Course ID	Course Title	Course Outcome	
CC-3	প্রাচীন ও মধ্যযুগের পদপাঠ	এথম পাঠপর্যায়ে প্রাথমিকভাবে প্রাচীন ও মধ্যযুগের সাহিত্যের ইতিহাসের পাঠগ্রহণ সম্পূর্ণ করার পর এই পাঠক্রমে ছাত্র-ছাত্রীদের চর্যাপদ, বৈষ্ণব ও শাক্ত পদাবলী সম্পর্কে বিস্তারিত পাঠগ্রহণের সুযোগ থাকে।      ই. চৈতন্য মহাপ্রভুর জীবন এবং তাঁকে কেন্দ্র করে রচিত সাহিত্যের সঙ্গে পরিচিত হওয়ার ফলে চৈতন্য সমকালের ইতিহাস, সমাজ, সংস্কৃতি, আর্থ-সামাজিক-রাজনৈতিক পরিবেশ সম্পর্কে শিক্ষার্থীরা পরিচিত হয়।	
CC-4	চৈতন্যজীবনী ও মঙ্গলকাব্য সাহিত্য পাঠ	<ul> <li>৩. বাংলা সাহিত্যের ইতিহাসে মঙ্গলকাব্যের ভূমিকা অপরিসীম। মঙ্গলকাব্যগুলি ত্রয়োদশ থেকে অষ্টাদশ শতাব্দী পর্যন্ত বাংলার ইতিহাস, সমাজ-সংস্কৃতি, পারিবারিক ও গার্হস্তা জীবন, লোকসংস্কৃতির আকর হিসেবে পরিচিত।</li> <li>৪. এছাড়াও মঙ্গলকাব্যের মধ্যে রয়েছে দেব-দেবীদের মর্ত্যে পূজা প্রচারকে কেন্দ্র করে অসংখ্য পৌরাণিক ও লৌকিক কাহিনি। ফলে ধর্মীয় ঐতিহ্যের পাশাপাশি এই কাব্যগুলি পাঠের মাধ্যমে শিক্ষার্থীদের বাংলার প্রাচীন ইতিহাস ও ঐতিহ্য সম্পর্কে স্পষ্ট ধারণা গড়ে ওঠে।</li> </ul>	
GE-2	কাব্য সাহিত্যের ধারা ও বৈষ্ণব পদাবলী পাঠ <b>অথবা</b> নাট্য সাহিত্যের ধারা এবং কাব্য ও নাটক পাঠ	প্রথম পাঠপর্যায়ের মতো দ্বিতীয় পাঠপর্যায়েও সাম্মানিক বাংলা ব্যতীত অন্য বিভাগ থেকে আগত শিক্ষার্থীদের যে কোনো একটি পাঠক্রমের পাঠগ্রহণ করতে হয়। এর মাধ্যমে ছাত্র-ছাত্রীরা  ১. প্রাচীন ও মধ্যযুগের এবং আধুনিক যুগের কবিতা ও কবিদের সম্পর্কে বিস্তারিত পরিচয় লাভ করে।  ২. বাংলা নাটকের ইতিহাস ও ঐতিহ্য এবং নাট্যকারদের সঙ্গে শিক্ষার্থীরা পরিচিত হয়।  ৩. নাটক এবং কবিতা যেহেতু পারফর্মিং আর্টের অন্তর্গত তাই পরবর্তীকালে ব্যবহারিক জীবনে এই শিল্পকলাগুলিকে তাদের পেশা হিসেবে বেছে নেওয়ার সুযোগ থাকে।	
AECC-2	ENVS	পরিবেশ সম্পর্কে অবহিত হওয়া এবং পরিবেশকে রক্ষা করা যে কোনো সমাজ- সচেতন নাগরিকের একান্ত কর্তব্য। উচ্চশিক্ষার পাঠগ্রহণকারী সমস্ত শিক্ষার্থীর কাছে তাই Ability Enhancement Compulsory Course হিসেবে ENVS বা পরিবেশবিদ্যার গুরুত্ব অপরিসীম।	

Course ID	Course Title	Course Outcome	
CC- 5	উনিশ-বিশ শতকের প্রবন্ধ ও কাব্য সাহিত্যের ইতিহাস এবং আখ্যান সাহিত্য পাঠ	১. এই পাঠক্রম থেকে শিক্ষার্থীরা উনিশ শতক থেকে শুরু করে বিশ শতক পর্যন্ত বাংলা গদ্য ও প্রবন্ধ সাহিত্যের উদ্ভব ও ক্রমবিকাশের ইতিহাস সম্পর্কে অবহিত হয় এবং সৃজনশীল গদ্য লেখার কৌশলগুলি রপ্ত করতে পারে। ২. বিদ্যাসাগরের 'শকুন্তলা' আখ্যান পাঠের মধ্যে দিয়ে ছাত্র-ছাত্রীরা বাংলা গদ্যের প্রাথমিক পর্যায়ের ভাষাবৈশিষ্ট্য, গদ্যশৈলী সম্পর্কে স্পষ্ট ধারণা লাভ করে। ৩. কাব্য সাহিত্যের ইতিহাস পাঠের মাধ্যমে আধুনিক বাংলা কাব্য সাহিত্যের ইতিহাস, বিবর্তন, কাব্যের আধারে ধরা পড়া কবিদের নিজস্ব জীবন-অভিজ্ঞান সম্পর্কে পরিচিত হয় এবং সেইসঙ্গে কাব্য-কবিতা সম্পর্কে তাদের মধ্যে একটা নিজস্ব আকর্ষণ তৈরি হয়।	
CC- 6	ছন্দ-অলংকার ও নির্বাচিত কবিতা পাঠ	১. বাংলা কাব্য-কবিতা নির্মাণে ছন্দ-অলংকারের গুরুত্ব, বিবর্তন, ব্যবহার, এবং ছন্দ-অলংকারের প্রায়োগিক নির্ণয় ও নির্মাণের বিষয়েও ছাত্র-ছাত্রীরা এই পাঠক্রমের মাধ্যমে বিশেষ জ্ঞান অর্জন করতে সক্ষম হয়।	
CC-7	প্রবন্ধ সাহিত্য পাঠ	১. নির্বাচিত কয়েকজন প্রাবন্ধিকের প্রবন্ধের বিশেষ অভিনিবেশসহ পাঠদানের মাধ্যমে শিক্ষার্থীরা প্রবন্ধ সাহিত্য সম্পর্কে আরও গভীরতর পাঠে অভ্যস্ত হয়ে ওঠে ফলে তারা সৃজনশীল গদ্য লেখার কৌশলগুলি রপ্ত করতে পারে।	
SEC-1	বাংলা ব্যাকরণ ও অনুবাদতত্ত্ব <b>অথবা</b> লিখন দক্ষতা বৃদ্ধি	সাম্মানিক বাংলার আবশ্যিক পাঠক্রমের অন্তর্গত Skill Enhancement Course- টির মাধ্যমে ছাত্র-ছাত্রীরা-  ১. বাংলা ব্যাকরণ সম্পর্কে দক্ষতা অর্জন করে এবং সেইসঙ্গে ইংরেজি থেকে বাংলায় অনুবাদের বিষয়েও প্রায়োগিক শিক্ষা পেয়ে থাকে।  ২. লিখন দক্ষতা, বিশেষত অফিসিয়াল চিঠিপত্র, সংবাদপত্রের প্রতিবেদন, বিজ্ঞাপনের খসড়া, সরকারি রিপোর্ট ইত্যাদি বিষয়ে হাতে-কলমে শিক্ষালাভ করে থাকে। এর ফলে ভবিষ্যতে কর্মমুখী জীবিকা অর্জনের পথ প্রস্তুত হয়।  ৩. শিক্ষার্থীরা একটি সুনির্দিষ্ট বানান বিধি এবং প্রুফ সংশোধনের নিয়মাবলী সম্পর্কেও জ্ঞান লাভ করে। এর ফলে ভবিষ্যতে গ্রন্থ নির্মাণ বা কপি এডিটর, অথবা প্রুফ রিডার হিসেবে নিজেকে প্রতিষ্ঠিত করতে পারে।	

Course ID	Course Title	Course Outcome
CC-8	উনিশ ও বিশ শতকের নাট্য সাহিত্যের ও কথাসাহিত্যের ইতিহাস ও ছোটোগল্প পাঠ	১. উনিশ ও বিশ শতকের বাংলা নাট্য সাহিত্যের ইতিহাস ও বিবর্তনের চালচিত্র এবং নাটকের মধ্যে দিয়ে আর্থ-সামাজিক রাজনৈতিক প্রেক্ষাপট সম্পর্কে ছাত্র- ছাত্রীরা অবহিত হয়। ২। কথাসাহিত্য অর্থাৎ উপন্যাস ও ছোটোগল্পের মধ্যে সবথেকে বেশি পরিমাণে
CC-9	কাব্য পাঠ	ধরা থাকে সমাজজীবনের বাস্তবতার ছবি। তাই এই পাঠক্রম থেকে শিক্ষার্থীরা বাংলার সমাজজীবনের ইতিহাস সম্পর্কে জানতে পারে এবং ভাবীকালের কথাসাহিত্যিক হয়ে ওঠার প্রেরণাও খুঁজে পায়।
CC-10	উপন্যাস পাঠ	৩. কাব্য ও উপন্যাস পাঠের মাধ্যমে ছাত্র-ছাত্রীদের কাব্য ও উপন্যাস পাঠে আকৃষ্ট করে তোলাও এই পাঠক্রমের অন্যতম উদ্দেশ্য।
SEC-2	বাংলা ভাষা ও সাহিত্য বিষয়ক প্রকল্প রচনা ও প্রকল্পপত্র উপস্থাপনা <b>অথবা</b> চিত্রনাট্য রচনা ও সাম্প্রতিক ঘটনা বিশ্লেষণ	সাম্মানিক বাংলার আবশ্যিক পাঠক্রমের অন্তর্গত Skill Enhancement Course- টির মাধ্যমে ছাত্র-ছাত্রীরা—  ১. বাংলা ভাষা ও সাহিত্য বিষয়ক প্রকল্প রচনা এবং উপস্থাপনায় ছাত্র-ছাত্রীদের দক্ষ করে তোলা।  ২. চিত্রনাট্য অর্থাৎ সিনেমার স্ক্রিপ্ট রচনার দক্ষতা বৃদ্ধি করে ভবিষ্যতে কর্মমুখী জীবনের পথ প্রশস্ত করা।

Course ID	Course Title	Course Outcome	
CC-11	C11T : নাট্যপাঠ	১. নাট্য পাঠের মাধ্যমে ছাত্র-ছাত্রীদের নাটক পাঠে আকৃষ্ট করে তোলা এবং অভিনয় শিল্পের প্রতি আকৃষ্ট করে তোলা এই পাঠক্রমের অন্যতম প্রধান উদ্দেশ্য।  ২. প্রাচীন ভারতীয় কাব্যতত্ত্বের ইতিহাস, ঐতিহ্য এবং যথার্থ কাব্যের সংজ্ঞা-স্বরূপ ও রসনিষ্পত্তির বিষয়ে শিক্ষার্থীদের অবহিত করে তোলা।	
CC-12	C12T : কাব্যতত্ত্ব, পাশ্চাত্য সাহিত্য সমালোচনার তত্ত্ব ও সাহিত্যের রূপরীতি	<ul> <li>৩. পাশ্চাত্য সাহিত্য সমালোচনার বিভিন্ন তত্ত্ব বিশ্লেষণের মধ্যে দিয়ে বিদেশি সাহিত্যের বিভিন্ন সাহিত্য আন্দোলন এবং বাংলা সাহিত্যের উপর তার প্রভাব সম্পর্কে পরিচিতি প্রদান করা এই পাঠক্রমের অন্যতম উদ্দেশ্য।</li> <li>৪. কাব্য, নাটক, কথাসাহিত্য, প্রবন্ধ প্রভৃতি সাহিত্য সংরূপগুলির শ্রেণিবিভাজন এবং সেগুলি সম্পর্কে শিক্ষার্থীদের মধ্যে যথাযথ ধারণা গড়ে তোলা।</li> </ul>	
DSE-1	DSE-1 : প্রাচীন সাহিত্যতত্ত্ব ও সাহিত্যতাত্ত্বিক <b>অথবা</b> বাংলা সাহিত্যে প্রভাব <b>অথবা</b> সাহিত্য আন্দোলন, সমালোচনা ও রূপরীতি	সাম্মানিক বাংলার আবশ্যিক পাঠক্রমের অন্তর্গত Discipline Specific Elective-এর মাধ্যমে ছাত্র-ছাত্রীরা—  ১. প্রাচীন ভারতীয় কাব্যতত্ত্ব তথা রসশাস্ত্র, নাট্যশাস্ত্র, সাহিত্যবিচার পদ্ধতি এবং সাহিত্যতাত্ত্বিকদের সম্পর্কে বিস্তারিতভাবে যথার্থ জ্ঞানার্জন করতে পারে।  ২. বাংলা সাহিত্যে সংস্কৃত সাহিত্য বিশেষত বেদ, উপনিষদ, পুরাণ এবং ইউরোপীয় সাহিত্যিকদের মধ্যে শেক্সপিয়ার, স্কট এলিয়ট, বোদলেয়ার প্রমুখের সাহিত্যকৃতি এবং আমাদের দেশীয় লোকসাহিত্য কীভাবে বাংলা সাহিত্যকে বিকশিত করেছে, প্রভাবিত করেছে এবং আরও সমৃদ্ধশালী করে তুলেছে সে সম্পর্কে ছাত্র-ছাত্রীরা অভিজ্ঞতা অর্জন করে।  ৩. পাশ্চাত্য সাহিত্য আন্দোলন যেমন, মর্ডানিজম্, পোস্ট-মর্ডানিজম্, ফেমিনিজম্, রোমান্টিসিজম্, অ্যাবসার্ডিজম্ এরকম উল্লেখযোগ্য সাহিত্য আন্দোলনগুলির উদ্ভবের ইতিহাস এবং সাহিত্যে তার প্রভাব সম্পর্কে অবহিত করা।  ৪. পাশ্চাত্য সাহিত্যের বিভিন্ন সমালোচনা পদ্ধতির সঙ্গে পরিচিত হওয়া এবং সেই সমালোচনা পদ্ধতির সাহায্যে সাহিত্য সমালোচনার কৌশল অর্জন করা।  ৫. বাংলা সাহিত্যের বিভিন্ন সংরূপ বা Genre সম্পর্কে বিস্তারিত পরিচিতি লাভ করা।	

## Programme: Bengali Honours Course Outcomes (Continued) SEMESTER: 5 (Continued)

Course ID	Course Title	Course Outcome	
DSE-2	DSE-2: জীবনীসাহিত্য ও পত্ৰসাহিত্য অথবা বাংলা বিতৰ্কমূলক, সৌন্দৰ্যতত্ত্বমূলক ও বিজ্ঞানচেতনামূলক গ্ৰন্থ পাঠ অথবা	১. জীবনীসাহিত্যের মধ্যে ধরা থাকে লেখকের ব্যক্তি জীবনের ইতিহাস, অভিজ্ঞতার অভিজ্ঞান। ফলত জীবনীসাহিত্য পাঠের মাধ্যমে শিক্ষার্থীরা লেখকের ব্যক্তি জীবন সম্পর্কে যেমন জানতে পারে, তেমনি তাঁর জীবন থেকে ছাত্র-ছাত্রীরা অনুপ্রাণিত হতে পারে।  ২. ব্যক্তিগত প্রয়োজনে লেখা চিঠিপত্রও যে সাহিত্যের মাধ্যম হয়ে উঠতে পারে পত্রসাহিত্যের মাধ্যমে শিক্ষার্থীরা সেই অভিজ্ঞতা ও অনুপ্রেরণা লাভ করে।  ৩. বিতর্কমূলক, সৌন্দর্যতত্ত্বমূলক ও বিজ্ঞানচেতনামূলক গ্রন্থ পাঠের মাধ্যমে ছাত্র-ছাত্রীদের যুক্তিপ্রবণতা, সৌন্দর্যচেতনা এবং বিজ্ঞানচেতনা অনেকাংশে বৃদ্ধিপ্রাপ্ত হয়।	
	বাংলা ছোটোগল্প, ভ্রমণকাহিনি ও গোয়েন্দাকাহিনির পাঠ	8. ভ্রমণকাহিনি পাঠের মধ্যে দিয়ে একদিকে যেমন ভ্রমণপিপাসু মনের পরিতৃপ্তি হয়, এমনি অন্যদিকে গোয়েন্দাকাহিনির মধ্যে থাকা রহস্য উন্মোচনের উত্তেজনা ছাত্র- ছাত্রীদের বৌদ্ধিক বিকাশের সহায়ক হয়।	
	<b>অথবা</b> বাংলা রঙ্গমঞ্চ, সাময়িকপত্র ও অনুবাদ সাহিত্যের ইতিহাস	<ul> <li>৫. বাংলা রঙ্গমঞ্চের ইতিহাস পাঠের মাধ্যমে নাট্যমঞ্চণ্ডলির প্রতিষ্ঠার ইতিহাস এবং সেখানে অভিনীত নাটক, নাট্য-কলাকুশলীদের সম্পর্কে বিস্তারিত পরিচয় লাভ করা সম্ভবপর হয়।</li> <li>৬. বাংলা সংবাদ ও সাময়িকপত্রগুলি হল বাংলার সমাজ-ইতিহাসের প্রামাণ্য দলিল।</li> </ul>	
		তাই এই পাঠক্রম বাংলার অতীত ইতিহাস ও ঐতিহ্য সম্পর্কে জানতে সাহায্য করে।	

Course ID	Course Title	Course Outcome
CC-13	C13T : লোকসাহিত্য	১. লোকসাহিত্য ও লোকসংস্কৃতি হল বাংলার একান্ত নিজস্ব প্রাণের সম্পদ। তাই লোকসাহিত্য সম্পর্কে অবহিত হওয়ার মধ্যে দিয়ে মাটির আঘ্রাণ, নিজস্ব ঐতিহহ্যের সঙ্গে পরিচত হওয়ার সুযোগ ঘটে। ২. সংস্কৃত ও ইংরেজি সাহিত্যের ইতিহাস জানার মাধ্যমে উক্ত ভাষার সাহিত্য
CC-14	C14T : সংস্কৃত, ইংরেজি ও প্রতিবেশী সাহিত্যের ইতিহাস	সম্পর্কে যেমন ছাত্র-ছাত্রীরা বিস্তারিত জ্ঞানলাভ করে, তেমনি বাংলা সাহিত্যের সঙ্গে তুলনামূলক পাঠেও তারা অনুপ্রাণিত হয়।  ৩. বাংলার প্রতিবেশি রাজ্যগুলির যেমন, বিহার, ঝাড়খণ্ড, ত্রিপুরা, আসাম, উড়িষ্যার সাহিত্যের ইতিহাস পাঠদানের মাধ্যমে ছাত্র-ছাত্রীরা প্রতিবেশী সাহিত্যের ইতিহাস যেমন জানতে পারে, তেমনি উক্ত সাহিত্যকৃতির সঙ্গে বাংলা সাহিত্যেকে মিলিয়ে পড়া ও তুলনামূলক সমালোচনায় উৎসাহী হয়ে ওঠে।
DSE-3	গদ্যসাহিত্য পাঠ <b>অথবা</b> কাব্যসাহিত্য পাঠ <b>অথবা</b> নাট্যসাহিত্য পাঠ	১. গদ্যসাহিত্যের বিকাশের সময়পর্ব থেকে একেবারে আধুনিক সময়ে লেখা কিছু নির্বাচিত গদ্যগ্রন্থ পাঠের মধ্য দিয়ে বাংলা গদ্যের বিবর্তন, শৈলী নির্মাণ এবং সাহিত্যের অন্যতম শক্তিশালী মাধ্যম হিসেবে গদ্যরীতির প্রাসঙ্গিকতা তুলে ধরা এই পাঠক্রমের অন্যতম উদ্দেশ্য।  ২. কাব্যসাহিত্য ও নাট্যসাহিত্য পাঠের মাধ্যমে কবিতা এবং নাটকের মধ্যে ধরা পড়া সমাজ জীবন সম্পর্কে লেখকের উপলব্ধি, কাব্য ও নাট্য আঙ্গিকের ব্যবহার এবং এই দুই শিল্পরীতির গভীর যোগসূত্র ছাত্র-ছাত্রীরা উপলব্ধি করতে পারে।

## Programme: Bengali Honours Course Outcomes (Continued) SEMESTER: 6 (Continued)

ত্র প্রকৃতি সাহিত্যের অন্যতম প্রধান প্রেরণাশক্তি। বিশ্ব প্রকৃতির মধ্যে ঘটে চলা নানান পরিবর্তন প্রাচীনকাল থেকেই সাহিত্যিকদের মনে নানা বিশ্বয়ের সৃষ্টি করেছে। প্রকৃতিচেতনামূলক সাহিত্য পাঠের মধ্যে দিয়ে ছাত্র-ছাত্রীরা প্রকৃতির অপার রহস্য এবং মানবজীবনের সঙ্গে তার মেলবন্ধনের যোগসূত্র সন্ধানে সক্ষম হয়।  ৪. জাতীয়তামূলক সাহিত্য পাঠের মধ্যে দিয়ে মানবতা, সৌদ্রাতৃত্ব, সহনশীলতা এবং বিশ্ব মানবতামূলক, জাতীয়তামূলক প্রতিচেতনামূলক, জাতীয়তামূলক ও বিশ্ব মানবতামূলক সাহিত্য পাঠের মধ্যে দিয়ে মানবতা, সৌদ্রাতৃত্ব, সহনশীলতা এবং উদারতার গুণে শিক্ষার্থীরা সামাজিক হয়ে উঠতে পারবে।  ৫. বাংলা সাহিত্যের সঙ্গে চলচ্চিত্রের নিবিড় যোগসূত্র রয়েছে। সাহিত্যের মধ্যেই লুকিয়ে থাকে চলচ্চিত্রের বীজ, উপাদান। আলোচ্য এই পাঠক্রমটি তাই একদিকে যেমন চিত্রনাট্য রচনা, চলচ্চিত্র সমলোচনা, এমনকি চলচ্চিত্র নির্মাণেও সরাসরি প্রেরণা দেবে, তেমনি অন্যদিকে অভিনয় শিল্পের প্রতিও তাদেরকে আকৃষ্ট করবে।  বাংলা সাহিত্য এবং  ৬. বাংলা ক্রিড়া সাহিত্যের মাধ্যমে খেলাধূলা, ক্রিড়া সাংবাদিকতা এবং ক্রিড়া	Course ID	Course Title	Course Outcome	
ক্রিড়া সাহিত্য সংরূপের সঙ্গে তারা পরিচিত হয়ে উঠবে।		রবীন্দ্রসাহিত্য পাঠ  অথবা উপন্যাস সাহিত্য পাঠ  অথবা প্রকৃতিচেতনামূলক, জাতীয়তামূলক ও বিশ্ব মানবতামূলক সাহিত্যপাঠ  অথবা বাংলা সাহিত্য এবং চিত্র, চলচ্চিত্র ও	ত. প্রকৃতি সাহিত্যের অন্যতম প্রধান প্রেরণাশক্তি। বিশ্ব প্রকৃতির মধ্যে ঘটে চলা নানান পরিবর্তন প্রাচীনকাল থেকেই সাহিত্যিকদের মনে নানা বিশ্ময়ের সৃষ্টি করেছে। প্রকৃতিচেতনামূলক সাহিত্য পাঠের মধ্যে দিয়ে ছাত্র-ছাত্রীরা প্রকৃতির অপার রহস্য এবং মানবজীবনের সঙ্গে তার মেলবন্ধনের যোগসূত্র সন্ধানে সক্ষম হয়়।      ৪. জাতীয়তামূলক সাহিত্য পাঠের মধ্যে দিয়ে মানবতা, সৌভ্রাতৃত্ব, সহনশীলতা এবং উদারতার গুণে শিক্ষার্থীরা সামাজিক হয়ে উঠতে পারবে।     ৫. বাংলা সাহিত্যের সঙ্গে চলচ্চিত্রের নিবিড় য়োগসূত্র রয়েছে। সাহিত্যের মধ্যেই লুকিয়ে থাকে চলচ্চিত্রের বীজ, উপাদান। আলোচ্য এই পাঠক্রমটি তাই একদিকে যেমন চিত্রনাট্য রচনা, চলচ্চিত্র সমালোচনা, এমনকি চলচ্চিত্র নির্মাণেও সরাসরি প্রেরণা দেবে, তেমনি অন্যদিকে অভিনয় শিল্পের প্রতিও তাদেরকে আকৃষ্ট করবে।     ৬. বাংলা ক্রিড়া সাহিত্যের মাধ্যমে খেলাধূলা, ক্রিড়া সাংবাদিকতা এবং ক্রিড়া ব্যক্তিত্বদের সঙ্গে শিক্ষার্থীদের যেমন পরিচয় ঘটবে, তেমনি একটা নতুন ধরনের	

## Programme: Bengali M.A.

## Course Outcomes <u>SEMESTER: 1</u>

Course ID	Course Title	Course Outcomes	
BNG-101	BNG-101 : ভাষার ইতিহাস ও পরিচয়	১. বর্তমানে প্রচলিত আধুনিক ভারতীয় ভাষাসমূহের (NIA) প্রেক্ষিতে বাংলা ভাষার উদ্ভব, বিকাশ ও বিবর্তন শিক্ষার্থীদের বহুভাষাভাষী ভারতের বৈচিত্র্যের মাঝে সমস্বয়ের ছবিকেই পরিস্ফুট করবে।  ২. ভারতীয় আর্য (OIA), মধ্য ভারতীয়আর্য (MIA) স্তর অতিক্রম করে নব্য ভারতীয় আর্য (NIA) ভাষায় বিবর্তনের ইতিহাস শিক্ষার্থীদের ভারতের সমৃদ্ধ ঐতিহ্যের সঙ্গে পরিচয় করাবে।  ৩. বাংলা লিপি কিভাবে মধ্য-বাংলার স্তর অতিক্রম করে আধুনিক বাংলায় রূপ পরিগ্রহ করেছে সেই বিবর্তনের ইতিহাস সম্পর্কে শিক্ষার্থীরা অবহিত হবে।	
BNG-102	BNG-102 : মধ্যযুগের সাহিত্যধারা	১. বাঙালি জাতির ইতিহাস, ধর্মদর্শন এবং বিবর্তনের ইতিহাস সম্পর্কে ছাত্র-ছাত্রীরা সম্যক জ্ঞান অর্জন করবে।  ২. মধ্যযুগের সাহিত্যধারা যেমন, অনুবাদ সাহিত্য, জীবনী সাহিত্য, নাথ সাহিত্য, পদাবলী সাহিত্য, মঙ্গলকাব্য এবং আরও অন্যান্য সাহিত্যধারার মধ্যে দিয়ে দশম থেকে অষ্টাদশ শতাব্দী পর্যন্ত বাংলার প্রাচীন ইতিহাস, ধর্মীয় সংস্কৃতি, আর্থ-সামাজিক-রাজনৈতিক অবস্থা এবং সেইসঙ্গে বাংলা সাহিত্যের ঐতিহ্যের সঙ্গে ছাত্র-ছাত্রীরা গভীরভাবে পরিচিত হয়ে উঠবে।	
BNG-103	BNG-103 : প্রাচীন ও আদি মধ্যযুগের সাহিত্যপাঠ	গীতগোবিন্দ, প্রাকৃতপৈঙ্গল, সদুজ্কির্ণামৃত, গাথাসপ্তশতী— প্রভৃতির মতো প্রকীর্ণ শ্লোক বা সাহিত্যিক নিদর্শনের সঙ্গে শিক্ষার্থীরা পরিচয় হওয়ায় সৃজ্যমান বাংলা সাহিত্যের স্বরূপ ও বিবর্তন সম্পর্কে অবহিত হবে।      প্রাচীন ও আদি মধ্যযুগের সাহিত্যপাঠের মাধ্যমে দশম থেকে পঞ্চদশ শতাব্দী পর্যন্ত বাংলার প্রাচীন ইতিহাস, আর্থ-সামাজিক-রাজনৈতিক অবস্থা এবং সেইসঙ্গে বাংলা সাহিত্যের ইতিহাসের বিবর্তন সম্পর্কে শিক্ষার্থীরা সম্যক জ্ঞানার্জন করবে।	
BNG-104	BNG-104 : অন্ত্যমধ্যযুগের সাহিত্যপাঠ	১. অন্ত্যমধ্যযুগ অর্থাৎ ষোড়শ শতাব্দী থেকে অষ্টাদশ শতাব্দীর শেষার্ধ পর্যন্ত রচিত বিভিন্ন সাহিত্যপাঠের মধ্যে দিয়ে ছাত্র-ছাত্রীরা এই সময়পর্বের সাহিত্যধারার ইতিহাস ও বিবর্তন সম্পর্কে যেমন পরিচিত হয়, তেমনি বাংলার ইতিহাস, সংস্কৃতি, আর্থ-সামাজিক-রাজনৈতিক বাস্তবতা এবং সামগ্রিকভাবে সেকালের মানুষের জীবনচর্যা ও ঐতিহ্যের সঙ্গে পরিচিত করে তোলে এই পাঠক্রম।	
BNG-105	BNG-105 : উনিশ-বিশ শতকের গদ্যসাহিত্যের ইতিহাস ও গদ্যসাহিত্য পাঠ	১. এই পাঠক্রম থেকে শিক্ষার্থীরা উনিশ শতকের সূচনালগ্নে খ্রিষ্টান মিশনারীদের হাতে সূচিত হওয়া বাংলা গদ্যচর্চার শুভারম্ভ থেকে বিশ শতক পর্যন্ত গদ্য-প্রবন্ধ সাহিত্যের উদ্ভব ও ক্রমবিকাশের ইতিহাস সম্পর্কে অবহিত হয় এবং সৃজনশীল গদ্য লেখার কৌশলগুলি রপ্ত করতে পারে।  ২. গদ্যসাহিত্যের বিকাশের সময়পর্ব থেকে একেবারে আধুনিক সময়ে লেখা কিছু নির্বাচিত গদ্যগ্রন্থ পাঠের মধ্য দিয়ে বাংলা গদ্যের বিবর্তন, শৈলী নির্মাণ এবং সাহিত্যের অন্যতম শক্তিশালী মাধ্যম হিসেবে গদ্যরীতির প্রাসঙ্গিকতা তুলে ধরাও এই পাঠক্রমের অন্যতম উদ্দেশ্য।	

## Programme: Bengali M.A. Course Outcomes (Continued) <u>SEMESTER: 2</u>

Course ID	Course Title	Course Outcomes	
BNG-201	201 : সাধারণ ভাষাবিজ্ঞান	১. বাংলা ভাষার বিভিন্ন তত্ত্ব যেমন, ধনিতত্ত্ব, রূপতত্ত্ব, অম্বয়তত্ত্ব সম্পর্কে বিস্তারিত জ্ঞানার্জন করা যায় এই পাঠক্রমের মাধ্যমে। ২. শ্রেণি, পেশা, ধর্ম, বর্ণ, জাতি, লিঙ্গভদে মানুষের ভাষা ব্যবহারের বৈচিত্র্য অর্থাৎ সমাজভাষা সম্পর্কে তাত্ত্বিক আলোচনার পরিসর শিক্ষার্থীদের কাছে প্রশস্ত হয়।	
BNG-202	১. উনিশ ও বিশ শতকের কাব্য-কবিতা পাঠের মাধ্যমে শিক্ষার্থীরা ও কবিতা সম্পর্কে বিস্তারিত পরিচয় লাভ করে এবং কাব্য ভ উঠে আসা আর্থ-সামাজিক-রাজনৈতিক প্রেক্ষাপট, জগৎ ও জীবন সম্ নিজস্ব রোমান্টিক অনুভূতির সঙ্গে পরিচিত হয়।  ২. কাব্য ও কবিতা পাঠে ছাত্র-ছাত্রীদের আকৃষ্ট করে তোলাও ও অন্যতম প্রধান উদ্দেশ্য।		
BNG-203	203 : রবীন্দ্রসাহিত্য পাঠ	১. রবীন্দ্রনাথ শুধুমাত্র বাংলা সাহিত্যের নয়, সমগ্র বিশ্ব সাহিত্যের একজন অন্যতম শ্রেষ্ঠ সাহিত্যিক। তাই আলাদা করে রবীন্দ্রসাহিত্যের নিবিড় পাঠের মধ্যে দিয়ে ব্যক্তি রবীন্দ্রনাথের জীবনাদর্শ যেমন শিক্ষার্থীদের কাছে স্পষ্ট হয়, তেমনি তাঁর সাহিত্য সম্পর্কেও তারা সম্যক জ্ঞানার্জন করতে পারে।  ২. শিক্ষার্থীদের রবীন্দ্র জীবন ও সাহিত্যে অনুপ্রাণিত করে তোলাই এই পাঠক্রমের প্রধান উদ্দেশ্য।	
BNG-204	204(CBCS) : বাংলা ভাষাতত্ত্ব ও সাহিত্যের পাঠ	ই ১. অন্য কোনো বিষয়ে স্নাতকোত্তর পর্যায়ের জ্ঞানার্জনের পাশাপাশি বাংলা ভাষাত	
BNG-205	205 : সেমিনার ও গবেষণাধর্মী প্রকল্প রচনা	১. স্নাতকোত্তর পর্যায়ের পঠন-পাঠন চলাকালীন ভবিষ্যতে M.phil, Ph.D-র মতো গবেষণাকর্মে ছাত্র-ছাত্রীদের উৎসাহ প্রদান এবং সেমিনারের মাধ্যমে গবেষণাধর্মী প্রকল্প উপস্থাপনের মধ্যে দিয়ে ভাবীকালের শিক্ষক হিসেবে গড়ে তোলাও এই পাঠক্রমের অন্যতম উদ্দেশ্য।	

## Programme: Bengali M.A. Course Outcomes (Continued) <u>SEMESTER: 3</u>

Course ID	Course Title	Course Outcomes	
BNG-301	301 : উনিশ- বিশ শতকের উপন্যাসের ইতিহাস ও পাঠ	১. উপন্যাস সাহিত্যের মধ্যে সবথেকে বেশি পরিমাণে ধরা পড়ে আর্থ-সামাজিক-রাজনৈতিক ইতিহাস এবং সেইসঙ্গে বাংলার লোকায়ত সংস্কৃতি, সমাজের সঙ্গে ব্যক্তির, ব্যক্তির সঙ্গে সমাজের দ্বন্ধ-সংকটের বহুবিচিত্র আখ্যান। তাই এই পাঠক্রমের মাধ্যমে উনিশ-বিশ শতকের ইতিহাস, ঐতিহ্য এবং সমাজজীবনের পরিবর্তন ও বাংলা উপন্যাসের বিবর্তনের ছবি খুব স্পষ্টভাবে উঠে আসে শিক্ষার্থীদের কাছে।  ২. এছাড়াও এই পাঠক্রম ছাত্র-ছাত্রীদের নিবিড়ভাবে উপন্যাসের পাঠগ্রহণে উৎসাহ প্রদান করে।	
BNG-302	302 : উনিশ- বিশ শতকের ছোটোগল্পের ইতিহাস ও পাঠ	১. ছোটোগল্প বাংলা সাহিত্যের অপেক্ষাকৃত নবীনতম সাহিত্যসংরূপ হয়েও খুব অল্প সময়ের মধ্যে অন্যতম গুরুত্বপূর্ণ সাহিত্যমাধ্যম হয়ে উঠেছে। ছোটোগল্পের মধ্যে খুব বেশি পরিমাণে ধরা থাকে সমাজজীবনের চলমানতা ও বাস্তবতার ছবি। তাই এই পাঠক্রম থেকে শিক্ষার্থীরা উনিশ-বিশ শতকের বাংলা ছোটোগল্পের বিবর্তনের ইতিহাস এবং সমাজজীবনের পরিবর্তনের প্রেক্ষাপট সম্পর্কেও জানতে পারবে। ২. এছাড়াও এই পাঠক্রম ছাত্র-ছাত্রীদের নিবিড়ভাবে ছোটোগল্পের পাঠগ্রহণে এবং ভাবীকালে ছোটোগল্প লেখায় উৎসাহিত হতে সাহায্য করবে।	
BNG-303	303 : বাংলা নাটক ও প্রহসন : উনিশ ও বিশ শতক	১. উনিশ ও বিশ শতকের বাংলা নাটক ও প্রহসনের ইতিহাস ও বিবর্তনের চালচিত্র এবং নাটকের মধ্যে দিয়ে আর্থ-সামাজিক রাজনৈতিক প্রেক্ষাপট সম্পর্কে ছাত্র- ছাত্রীরা অবহিত হবে। ২. নাটক যেহেতু পারফর্মিং আর্টের অন্তর্গত তাই পরবর্তীকালে ব্যবহারিক জীবনে এই শিল্পকলার প্রতি আকর্ষণ সৃষ্টি করাও এই পাঠক্রমের অন্যতম উদ্দেশ্য।	
BNG-304	304(CBCS) : প্রাচ্য সাহিত্যতত্ত্ব ও বাংলা সাহিত্যের বিবিধ পাঠ	দ্বিতীয় পাঠপর্যায়ের মতো তৃতীয় পাঠপর্যায়েও বাংলা ব্যতীত অন্য কোনো বিভাগের থেকে আগত ছাত্র-ছাত্রীদের এই পাঠক্রমের পাঠ নিতে হয়। এর মাধ্যমে ছাত্র-ছাত্রীদের— ১. প্রাচ্য সাহিত্যতত্ত্ব, উপন্যাস, ছোটোগল্প, গদ্য-প্রবন্ধ, কাব্য-কবিতাসহ বাংলা সাহিত্যের বিবিধ বিষয়ের পাঠগ্রহণের মাধ্যমে শিক্ষার্থীদের সম্যক জ্ঞানার্জন ও বাংলা সাহিত্য সম্পর্কে স্পষ্ট ধারণা গড়ে ওঠে।	

## Programme: Bengali M.A. Course Outcomes (Continued) <u>SEMESTER: 3 (Continued)</u>

স্থান উপস্থাপন স্থান্থ স্থান	Course ID	Course Title	Course Outcomes
		305 : বিশেষপত্রের প্রকল্পপত্র উপস্থাপন  305A : ভাষা সমীক্ষা ভথবা  305B : মধ্যযুগের পুথিচর্চা ও ক্ষেত্রসমীক্ষা ভথবা  305C : রবীন্দ্রজীবন ও সাহিত্য বিষয়ক প্রকল্প ভথবা  305D : প্রায়গিক নাট্য প্রকল্প ভথবা  305E : লোকউপাদান সংগ্রহ ও সমীক্ষা ভথবা  305F : কথাসাহিত্য বিষয়ক প্রকল্প ভথবা  305G : সাহিত্যতত্ত্ব বিষয়ক প্রকল্প ভথবা  305G : সাহিত্যতত্ত্ব বিষয়ক প্রকল্প ভথবা  305H : বাংলা ও প্রতিবেশী	স্নাতকোত্তর বাংলার তৃতীয় পাঠপর্যায়ের ছাত্র-ছাত্রীদের বাংলা ভাষা ও সাহিত্যের বিভিন্ন বিষয় বা সংরূপের মধ্যে থেকে যে কোনো একটি বিষয়কে বিশেষপত্র হিসেবে নির্বাচন করে প্রকল্পপত্র উপস্থাপন করতে হয়। এর মাধ্যমে শিক্ষার্থীদের—  ১. বাংলা ভাষা ও সাহিত্যের কোনো একটি বিষয় বা সংরূপ সম্পর্কে বিশেষভাবে পাঠদান ও প্রশিক্ষিত করে তোলা।  ২. ক্ষেত্রসমীক্ষা মাধ্যমে কোনো একটি বিশেষ অঞ্চলের ভাষা সমীক্ষা ও লোকায়ত সংস্কৃতি সম্পর্কে হাতে-কলমে কাজের অভিজ্ঞতা অর্জন করা।  ৩. সাক্ষাৎকারের মাধ্যমে একালের কোনো জনপ্রিয় কথাসাহিত্যিক, নাট্য ব্যক্তিত্ব এবং লোকয়ায়ত মানুষ ও লোকসংস্কৃতি সংগ্রাহকের জীবন ও সাহিত্যের বিচার বিশ্লেষণ করা।  ৪. প্রকল্পপত্র উপস্থাপনের মাধ্যমে শ্রেণিক্ষের পাঠদান এবং নিজম্ব বিশ্লেষণী দক্ষতা অর্জন এবং করা।  ৫. মধ্যযুগের প্রাচীন পুথিপত্র পাঠ ও চর্চার মাধ্যমে প্রাচীন ইতিহাস, ঐতিহ্য এবং সাহিত্য সম্পর্কে অভিজ্ঞতা অর্জন করা।  ৬. সামগ্রিকভাবে বিশেষপত্রের পাঠগ্রহণের মধ্যে দিয়ে শিক্ষার্থীদের বাংলা সাহিত্যের কোনো একটি বিষয়ে বিশেষজ্ঞ এবং ভবিষ্যতে গবেষণাধর্মী কাজকর্মে উৎসাহিত করাই এই পাঠক্রমের অন্যতম প্রধান

## Programme: Bengali M.A. Course Outcomes (Continued) <u>SEMESTER: 4</u>

Course ID	Course Title	Course Outcomes
BNG-401	401 : বাংলা সাহিত্যের রূপান্তর, পাঠান্তর, অনুবাদ সাহিত্য প্রেরণা	১. বাংলা সাহিত্যের রূপান্তর, পাঠান্তর, অনুবাদ সাহিত্য সম্পর্কে ছাত্র-ছাত্রীদের জ্ঞান বৃদ্ধি এবং সাহিত্য পাঠে অনুপ্রাণিত করার উদ্দেশ্যেই এই পাঠক্রমের অবতারণা। ২. অন্য কোন ভাষা সাহিত্য থেকে বাংলা ভাষায় অনুবাদের ধারণাও ছাত্র- ছাত্রীরা এই পাঠক্রম থেকে অর্জন করতে পারে।
BNG-402	<b>402 :</b> প্রাচ্য সাহিত্বতত্ত্ব	১. প্রাচীন ভারতীয় কাব্যতত্ত্ব তথা রসশাস্ত্র, নাট্যশাস্ত্র, সাহিত্যবিচার পদ্ধতি এবং সাহিত্যতাত্ত্বিকদের সম্পর্কে বিস্তারিতভাবে জ্ঞানার্জন এবং সাহিত্যতত্ত্ব বিষয়ে রবীন্দ্রনাথের নিজস্ব দর্শন বিষয়ে জ্ঞান বৃদ্ধি করা এই পাঠক্রমের উদ্দেশ্য।
BNG-403	403 : পাশ্চাত্য সাহিত্বতত্ত্ব	১. পাশ্চাত্য সাহিত্য আন্দোলন যেমন, মর্ডানিজম্, পোস্ট-মর্ডানিজম্, ফেমিনিজম্, রোমান্টিসিজম্, অ্যাবসার্ডিজম্ এরকম উল্লেখযোগ্য সাহিত্য আন্দোলনগুলির উদ্ভবের ইতিহাস এবং সাহিত্যে তার প্রভাব সম্পর্কে অবহিত করা।  ২. পাশ্চাত্য সাহিত্যের বিভিন্ন সমালচনা পদ্ধতি যেমন, রোমান্টিক মুভমেন্ট, সাব-অল্টার্ন কনসেপ্ট, পোস্ট স্ট্রাকচারালিজিম্, কম্পারেটিভ ক্রিটিসিজিম্এরকম বিভিন্ন সমালোচনা পদ্ধতির সঙ্গে পরিচিত হওয়া এবং সেই সমালোচনা পদ্ধতির সাহায্যে সাহিত্য সমালোচনার কৌশল অর্জন করা।  ৩. অ্যারিস্টলের 'পোয়েটিক্স' এবং হোরেসের 'অন দ্য আর্থ অফ পোয়েট্রি' গ্রন্থদুটি সম্পর্কে বিস্তারিত জ্ঞানার্জন করা।

## Programme: Bengali M.A. Course Outcomes (Continued) <u>SEMESTER: 4 (Continued)</u>

Course ID	Course Title	Course Outcomes
BNG-404	404 : বহির্বঙ্গীয় বাংলা সাহিত্যচর্চা ও ভাষা আন্দোলন	১. বাংলার প্রতিবেশী রাজ্যগুলির যেমন, বিহার, ঝাড়খণ্ড, ত্রিপুরা, আসাম, প্রভৃতি রাজ্যে বাংলা সাহিত্যচর্চা এবং সেই কৃত সাহিত্যের মধ্যে দিয়ে সেই সমস্ত রাজ্যের আর্থ-সামাজিক-রাজনৈতিক ও সাংস্কৃতিক ইতিহাসের একটা স্পষ্ট রূপরেখা তুলে ধরা এই পাঠক্রমের উদ্দেশ্য।  ২. দেশে-বিদেশে এবং প্রতিবেশী রাজ্যগুলিতে বাংলা ভাষাকে কেন্দ্র করে সংঘটিত হওয়া ভাষা আন্দোলনের ইতিহাস এবং মাতৃভাষার ঐতিহ্য সম্পর্কে এই পাঠক্রম ছাত্র-ছাত্রীদের জ্ঞানার্জনের পাশাপাশি মাতৃভাষার প্রতি শ্রদ্ধাশীল করে তোলে।
BNG-405	405 : বিশেষপত্র  405A : ভাষাবিজ্ঞান ও ভাষাতত্ত্ব  অথবা  405B : মধ্যযুগের সাহিত্যপাঠ  অথবা  405C : রবীন্দ্রসাহিত্য পাঠ  অথবা  405D : নাট্যসাহিত্য পাঠ  405E : লোকসাহিত্য-সংস্কৃতি তত্ত্ব ও পাঠ  অথবা  405F : কথাসাহিত্য পাঠ  অথবা  405G : সাহিত্যতত্ত্ব ও তত্ত্ববিদ্ অথবা  405H : বাংলা ও প্রতিবেশী	তৃতীয় পাঠপর্যায়ের মতো চতুর্থ পাঠপর্যায়েও ছাত্র-ছাত্রীদের যে কোনো একটি বিষয়কে বিশেষপত্র হিসেবে নির্বাচন করতে হয়। এই পাঠপর্যায়ে ছাত্র-ছাত্রীরা—  ১. নির্বাচিত বিশেষপত্রের তাত্ত্বিক এবং ভাষা ও সাহিত্যের বিশেষ বিশেষ দিকগুলিতে সর্বোচ্চ পর্যায়ের জ্ঞানার্জন করে।  ২. স্নাতকোত্তর পাঠপর্যায়ের একেবারে শেষ পর্বে নির্বাচিত পাঠ্যপুস্তকের অনুপুঙ্খ বিচার-বিশ্লেষদের দক্ষতা অর্জনের পাঠ গ্রহণ করে।  ৩. বিশেষপত্রের পাঠগ্রহণের মধ্যে দিয়ে শিক্ষার্থীরা বাংলা সাহিত্যের কোনো একটি বিষয়ে বিশেষজ্ঞ হিসেবে নিজেকে দক্ষ ও অভিজ্ঞ করে তুলতে পারে।  ৪. এই পাঠক্রমের মাধ্যমে শিক্ষার্থীরা শ্রেণিকক্ষে পাঠদান অর্থাৎ ভাবীকালের শিক্ষক হিসেবে কর্মক্ষেত্রে নিজের আত্মবিশ্বাস অর্জনে সাহায্য করে।  ৫. ভবিষ্যতে কোনো একটি সুনির্দিষ্ট বিষয় নির্বাচন করে M.phil, Ph.Dর মতো গবেষণাধর্মী কাজকর্মের মাধ্যমে উচ্চতর শিক্ষায়

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF

## B.A. IN ENGLISH HONOURS AND M.A. IN ENGLISH

**PROGRAMMES** 

## **Program Specific Outcomes**

## Of the Programme

## 3-Year B.A. (HONOURS) in ENGLISH

## **Under Choice Based Credit System (CBCS)**

During the three year B.A. Honours course our students have six SEMESTERS (2 SEM/year) to pass and a vast array of courses along with DSE, AECC and ENVS to chose. The department also offers a long list of choice based Generic courses for the other Honours students from different faculties of the college. After completing all the SEMESTERS our students are expected to learn about:

- **1.** The history of the English Language.
- **2.** The history of the English people and their society and culture and obviously their Literature.
- **3.** All the English Literary periods and all the influential writers and poets from different periods whose works shaped the history of English Literature.
- **4.** The influential women writers and thinkers and grasp the point of view of them about society and all the other things.
- **5.** The societal and literary history of other colonised people of the British Rule and their struggle for identity and establishment.
- **6.** The environment and the different movement about protecting the environment and to become an environment friendly citizen with all the necessary awareness.
- **7.** The language with grammatical correctness and to speak and write English with fluency.

A Graduate student from our institution is expected to become a Good Citizen of this country with all the knowledge and skill to become or do whatever she/he wants to be in her/his life.

## **Program Specific Outcomes**

## Of the Programme

### M.A. in ENGLISH

## **Under Choice Based Credit System (CBCS)**

During the two year M.A. course our students have four SEMESTERS (2 SEM/year). The syllabus assumes the students are interest in higher learning and aims at equipping them for an academic career. Their syllabus has been framed keeping in mind the recommendations of the CDC regarding various emerging areas in English Studies. After completing all the programmes students are expected to:

- 1. Engage analytically with existing criticism and interpretations of pre-Romantic poetry, and work independently on practical as well as theoretical problems of literary analysis and interpretation.
- 2. Carry out an independent research project under supervision, in accordance with applicable norms for literary research.
- 3. Write papers that construct logical and informed arguments.
- 4. Document and analyse the oral literary tradition of Dalit and Tribal communities.
- 5. Acquaint themselves to the writers of new literatures from Africa, Australian, Canada as well as Caribbean Literature and enable them to comprehensively appreciate various cultures.
- 6. Enhance their knowledge skills for other related professional domains.
- 7. Contest in competitive examinations—written and interactive—related to teaching at all levels.

**Programme: B.A. Honours in English** 

## Course Outcomes <u>SEMESTER: 1</u>

Course ID	Course Title	Course Outcome
CC1	British Poetry and Drama: Beginning to 14th Century and History of English Language	First year students are greeted with this this syllabi which covers the history of English language along with British poetry and drama. They are expected to learn the history and development of the race, Called British, and their very first attempt to create language and literature, like early poetry and dramas, this makes the base for learning English Literature.
CC2	British Poetry and Drama: Renaissance to 17th and 18th Centuries	European Renaissance is one of the most important and influential event that not only changed the society, culture and economy of the continent but also has a great effect on literature. Along with all the European countries the British also captured the changing times in their literature. Students are expected to learn those.
GE1	Academic Writing and Composition	Students are expected to gain knowledge on different academic writing procedure and to venture on their own with creative writing.
AECC-1	MIL English	In our State, when the students pass out from High School and join college with the subject of English, as most of them hail from Bengali Medium, they face a difficulty during in the first few days with the language.  As the CBCS programme suggests we have <b>Ability Enhancement Compulsory Course</b> in the first SEMESTER, where they learn about the language with grammatical correctness, which enables them to speak and write English with fluency.

## **Programme: B.A. Honours in English**

## Course Outcomes (Continued) <u>SEMESTER: 2</u>

Course ID	Course Title	Course Outcome
CC3	British Literature (fiction and nonfiction): 18th Century	Students are expected to learn the ongoing development of the English life and literature from Renaissance to early 18 <sup>th</sup> Century. They also get to know and learn about some of the great thinkers of this period which develops more of their knowledge of English Literature.
CC4	British Romantic Literature (1798-1832)	Romantic Period is one of the most Important Period in British Literature. It has a great influence on the upcoming Periods of English Literature. Students are expected to learn about the Romantic poets and their Literary works.
GE2	Media and Communication Skills	Students acquire expertise on the language with grammatical correctness and to speak and write English with fluency and communicate in English.
GEZ	OR Text and Performance	Students learn to analyse any literary text with the ability to writing paper on the topic meticulously.
AECC-2	ENVS	In the 2 <sup>nd</sup> SEM they have ENVS as their <b>AECC.</b> Where they learn about the environment and the different movement about protecting environment. Eventually this programme makes them an environment friendly citizen with necessary awareness. As the programme suggest, they have to prepare a project report based on their survey on some environmental crisis.

## **Programme: B.A. Honours in English**

## Course Outcomes (Continued) <u>SEMESTER: 3</u>

Course ID	Course Title	Course Outcome
CC5	British Literature: 19th Century (1832-1900)	Students are expected to learn about the development of English Literature during the 19 <sup>th</sup> Century and get to know some of the great British writers and their works of this period.
CC6	British Literature: The Early 20th Century	Students are expected to learn about the development of English Literature during the 20 <sup>h</sup> Century and get to know some of the great British writers and their works of this period.
CC7	C7T: American Literature	Students are introduced to the Literary history of America and they are expected to learn the cultural and political history of America too.
	Language and Linguistics OR	Students are expected to learn about the form, context and meaning of the language and to analyse human language by sound and meaning.
GE3	Contemporary India: Women Empowerment	Students learn about the conditions and movements of Indian women from different walks of life, about their empowerment achievements and governmental steps, about the influential women writers and thinkers and grasp the point of view of them about society and all the other things.
SEC-1	English Language Teaching Or Soft Skills Or Translation Studies	In Skill Enhancement Course they are offered with some skill development programme on the language of English. As the programmers suggest and teach some skill to help them to have a command on the language based on different environment and situations.

**Programme: B.A. Honours in English** 

## Course Outcomes (Continued) <u>SEMESTER: 4</u>

Course	C T'4	C O . I
ID	Course Title	Course Outcome
CC8	European Classical Literature	With this course of syllabus students are expected to learn about the European Classic Literature, like Italian and French and Latin, and the history and developments and also their influence through time.
CC9	Modern European Drama	Modern time has a great influence on the lives of European people as well as on the people of the world, which are recorded in the Literature of this time. Students are expected to know and learn them.
CC10	Popular Literature	Students are expected to know some of the great Literary names and their works throughout the world either written in English or translated into English.
	Gender and Human Rights	Gender and Human Rights: Students learn about the difference between sex and gender and the social, patriarchal and political views on those ideas. In the process they also learn about the position of different genders and their rights.
GE4	Environment and Literature	Students are acquainted with the literatures related to environment related issues, different movement about protecting the environment and to become an environment friendly citizen with all the necessary awareness. Acquire the awareness and respect about ethnic people practicing natural livelihood.
SEC-2	Creative Writing Or Business Communication Or Technical Writing	Students are expected to learn about the technicalities of writing in English creatively or for business and technical purpose.

## **Programme: B.A. Honours in English**

## Course Outcomes (Continued) <u>SEMESTER: 5</u>

Course ID	Course Title	Course Outcome
CC11	Post-Colonial Literatures	Post- Colonial Literature records the cultural and political history of the British colonies through the eyes of the British Writers or through the eyes of the colonised people written or trnaslated into English. Students are expected to learn them.
CC12	Women's Writing	This genre focuses on the writings of some of the great women writers. Students are expected to learn about them and their writings. They are also expected to grasp the point of veiw of the women writers.
DSE1	Nineteenth Century European Realism	The theory of Realism paved the way of Theory Learning and presented new ideas to analyse a literary piece. Students are expected to learn different theories along with the European Realism and also expected to have their own views on a literary work.
DSE2	World Literatures	Students are expected to know some of the great literary figures and their works throughout the world either written in English or translated into English.

Programme: B.A. Honours in English

## Course Outcomes (Continued) SEMESTER: 6

Course ID	Course Title	Course Outcome
CC13	Indian Classical Literature	Students are expected to learn about the history and development and the influence of Indian Classical Literarture on Modern Indian or World Literature.
CC14	Indian Writing in English	Students are expected to know some of the early Indian writers who started writing in English, their literary works and its influence on the Modern Indian Literature.
DSE3	Science Fiction and Detective Literature Or Literature and Cinema	Students are expected to learn some of the popular literary genres of Modern Literature like Detective Fiction or Literature and Literature and Cinema.
DSE4	Partition Literature Or Travel Writing	Partition of India is one of the most influential event happened in the Indian history of Independence. The literature based on this event are some of the greatest literary pieces in the history of Indian Literature. Students are expected to learn those literary works along with the dark past of our country. They are also expected to learn some of the Travel Writings.

As the core programmes suggest, they study the History of the language along with the History of English Literature. Where they learn about British Poetry, Drama and other popular writings along with the development of different genres throughout the history of the English society and language.

**Programme: M.A. in English** 

## Course Outcomes <u>SEMESTER: 1</u>

Course ID	Course Title	Course Outcome
C101	Poetry I (Medieval to Pre-Romantic)	<ul> <li>After the completion of this course the students will be able to:</li> <li>Understand key concepts of medieval and pre-romantic poems included in the syllabus</li> <li>Become acquainted with the spirit of the middle ages and the pre-Romantic period as reflected through certain poetic texts.</li> <li>Account for the role of context(s) in the production, reception, and transmission of major literary works till the 18 th century.</li> <li>Engage analytically with existing criticism and interpretations of pre-Romantic poetry, and work independently on practical as well as theoretical problems of literary analysis and interpretation</li> <li>Carry out an independent research project under supervision, in accordance with applicable norms for literary research</li> <li>6. Analyse a wide range of problems relating to literary and historical scholarship.</li> </ul>
C102	Drama I (Medieval to Romantic)	After the completion of this course the students will be able to:  > Understand key concepts of drama-texts included in the syllabus.  > Refer to relevant contemporary literary theories.  > Demonstrate conceptual and textual understanding in tests and exams  > Prepare and present papers, and address the questions asked.  > Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes.  > 6. Contest in competitive examinations—written and interactive—related to teaching at all levels.
C103	Fictional and Non-fictional Prose – 18 <sup>th</sup> and 19 <sup>th</sup> Centuries	After the completion of this course the students will be able to:  > Understand key concepts of 18th and 19th century fictional and non-fictional prose writings included in the syllabus.  > Account for the role of context(s) in the production, reception, and transmission of major literary works of the Romantic and Victorian ages  > Express Concepts through Writing  > Demonstrate conceptual and textual understanding in tests and exams  > Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes  > 6. Contest in competitive examinations—written and interactive—related to teaching at all levels.

**Programme: M.A. in English** 

Course Outcomes (Continued)
<u>SEMESTER: 1 (Continued)</u>

Course ID	Course Title	Course Outcome
C104	Poetry II (19 <sup>th</sup> Century)	After the completion of this course the students will be able to:  ➤ Gain knowledge of representative texts of Romantic poetry.  ➤ Become acquainted with the spirit of the Victorian age as reflected through certain poetic texts.  ➤ Account for the role of context(s) in the production, reception, and transmission of major literary works of the Romantic and Victorian ages  ➤ Engage analytically with existing criticism and interpretations of 18 th and 19 th century poetry, and work independently on practical as well as theoretical problems of literary analysis and interpretation  ➤ Carry out an independent research project under supervision, in accordance with applicable norms for literary research  ➤ Analyse a wide range of problems relating to literary and historical scholarship.
C105	Field Survey and Documentation of Dalit and Tribal Cultural Texts	<ul> <li>After the completion of this course the students will be able to:</li> <li>Document and analyse the oral literary tradition of Dalit and Tribal communities.</li> <li>Translate published specimens of local literature into English.</li> <li>Express Concepts through Writing.</li> <li>Demonstrate conceptual and textual understanding in tests and exams.</li> <li>Carry out an independent research project under supervision, in accordance with applicable norms for literary research.</li> <li>6. Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes.</li> </ul>

## **Programme: M.A. in English**

## Course Outcomes (Continued) <u>SEMESTER: II</u>

Course ID	Course Title	Course Outcome
C201	Drama II (19 <sup>th</sup> and 20 <sup>th</sup> Centuries)	<ul> <li>After the completion of this course the students will be able to:</li> <li>Understand key concepts of 19th and 20th century drama-texts included in the syllabus.</li> <li>Refer to relevant contemporary literary theories</li> <li>Express concepts through writing</li> <li>Prepare and present papers, and address the questions asked.</li> <li>Develop adequate theoretical and technical training to take up area-specific research in</li> <li>M.Phil. and Ph.D. programmes.</li> <li>Contest in competitive examinations—written and interactive—related to teaching at all levels.</li> </ul>
C202	Fictional and Non-fictional Prose II (19th and 20th Century Texts)	After the completion of this course the students will be able to:  > Gain first hand knowledge of representative 19th and 20th century fictional and non-fictional prose pieces.  > Become acquainted with influential criticism of and commentary on 19th and 20th century fictional and non-fictional prose pieces.  > account for the role of context(s) in the production, reception, and transmission of major literary works of the Victorian and Modern ages  > Express Concepts through Writing  > Demonstrate conceptual and textual understanding in tests and exams  > Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes.
C203	Poetry III (19th & 20th Century Texts)	After the completion of this course the students will be able to:  > Understand the avant-garde forms of literary expression and their departures from earlier forms of representation.  > Develop an understanding of the various forms of critique of modernity that evolved in England (and Europe) in the course of the 20 th century  > Gain awareness of new disciplines/areas of inquiry that decisively influenced European art and literature in the 20 th century.  > Express Concepts through Writing  > Demonstrate conceptual and textual understanding in tests and exams  > Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes

**Programme: M.A. in English** 

Course Outcomes (Continued)
SEMESTER: II (Continued)

Course ID	Course Title	Course Outcome	
C204	Extra- Departmental Course – Language and Communicative Skills	After the completion of this course the students are able to:  > Understand and apply knowledge of human communication and language processes as they occur in various contexts.  > Effectively communicate or express themselves in English either verbally or in written form 3.  > Develop knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others.  > Demonstrate positive group communication exchanges.  > Use current technology related to the communication field.  > Effectively compete in the job market.	
C205	Shakespeare	After the completion of this course the students will be able to:  > Appreciate the continuing relevance of Shakespeare's plays  > Understand the times and theatre (including stage) when Shakespeare lived and worked in London.  > Become acquainted with Shakespeare-criticism in understanding Shakespeare.  > Refer to relevant contemporary readings of Shakespeare as well as relevant contemporary theory for a fresh reading of Shakespeare  > Demonstrate conceptual and textual understanding in tests and exams  > Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes.	

#### **Programme: M.A. in English**

# Course Outcomes (Continued) <u>SEMESTER: III</u>

SEMESTER: III			
Course ID	Course Title	Course Outcome	
CC301	Literary Theory and Criticism I	After the completion of this course the students will be able to:  > Gain sufficient exposure to literary critics and their respective theories from the classical era to the English Romantic period  > Understand various positions or stances taken by critical theorists towards an evaluation of literature in general as well as specific literary texts  > Locate the critical concepts and theories in specific historical, cultural and political context.  > Use literary concepts and theories to structure and formulate arguments  > Prepare and present papers on theory as well as on literature in general  > Contest in competitive examinations—written and interactive—related to teaching at all levels.	
CC302	Literary Theory and Criticism II	After the completion of this course the students will be able to:  > Gain sufficient exposure to literary critics and their respective theories from the Victorian era to the Modernist period  > Understand various positions or stances taken by critical theorists towards an evaluation of literature in general as well as specific literary texts  > Locate the critical concepts and theories in specific historical, cultural and political context.  > Use literary concepts and theories to structure and formulate arguments  > Prepare and present papers on theory as well as on literature in general  > Contest in competitive examinations—written and interactive—related to teaching at all levels.	
CC303	Colonialism and Post- colonialism	<ul> <li>After the completion of this course the students will be able to:</li> <li>Gain a coherent knowledge and a critical understanding of colonial and post-colonial literature and its key historical, cultural and theoretical developments.</li> <li>Become acquainted with how race, class, gender, history, and identity are presented and problematised in the literary texts.</li> <li>Undertake a revisionary reading to discover the hidden voices within a text and realize while focusing on an interrogation of the Western canon.</li> <li>Critically evaluate arguments and assumptions about colonial and postcolonial literature, texts, and modes of interpretation.</li> <li>Critically look at the rising trends of globalization, capitalism and multi-culturalism.</li> <li>Develop interpretative skills of close reading, skills of critical reading, oral presentation and analytical writing.</li> </ul>	

Programme: M.A. in English

Course Outcomes (Continued)
<u>SEMESTER: II1 (Continued)</u>

Course ID	Course Title	Course Outcome
CC304	Introduction to Critical Theory and Cultural Studies	<ul> <li>After the completion of this course the students will be able to:</li> <li>Discuss and analyse cultural texts using a wide range of theoretical approaches, in particular those that consider how class, gender, sexuality, nationality and race are represented in popular texts.</li> <li>Identify, analyse, and address the specific structural location of cultural issues and debates, and propose creative and effective interventions.</li> <li>Recognize, critically address, and collaboratively negotiate cultural diversity and difference in a variety of educational and institutional sites.</li> <li>Effectively move from project conception to project execution through the use of both critical and immersive techniques that engage specific publics.</li> <li>Create a dynamic portfolio of work that provides the opportunity for reflection and showcases examples of research and collaboration.</li> <li>Engage in professional positions as researchers, educators, activists, artists, and problem-solvers in a variety of cultural and organizational arenas.</li> </ul>
CC305	New Literature	<ul> <li>After the completion of this course the students will be able to:</li> <li>Acquaint themselves to the writers of new literatures from Africa, Australian, Canada as well as Caribbean Literature and enable them to comprehensively appreciate various cultures.</li> <li>Compare and contrast the writers from around the world and their unique styles.</li> <li>Gain the ability to practically analyse any literary work by identifying different aspects of literature.</li> <li>Interpret the text intensively and distinguish its salient features.</li> <li>Appreciate the literary works at varied levels of comprehension.</li> <li>Demonstrate the ability to use the critical theories in literary evaluation.</li> </ul>

#### **Programme: M.A. in English**

# Course Outcomes (Continued) <u>SEMESTER: IV</u>

Course ID	Course Title	Course Outcome	
401	American Literature	After the completion of this course the students will be able to:  > Identify the salient features of representative literary texts from across all periods of American Literature  > Contextualize the production and reception of literary texts.  > Identify major theories related to literature and apply those theoretical approaches to a wide range of texts within American Literature.  > Locate, analyse and collate available secondary resources for researching a scholarly topic within American Literature  > Write papers that construct logical and informed arguments  > Prepare and deliver effective oral presentations and arguments	
402 Special Paper-I	Option A: Literature of the Indian Sub- Continent: Fiction and Non-Fiction in English	<ul> <li>After the completion of this course the students will be able to:</li> <li>Gain a comprehensive idea of the origin, growth and development of Indian English novel.</li> <li>Account for the role of context(s) in the production, reception, and transmission of major literary works of Indian Literature</li> <li>Express Concepts through Writing</li> <li>Demonstrate conceptual and textual understanding in tests and exams</li> <li>Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes</li> <li>Contribute to innovative thinking both within and outside of the sphere of English literary studies</li> </ul>	
	Option B: New Literature	After the completion of this course the students will be able to:  ➤ Acquaint themselves to the writers of new literatures from Africa, Australian, Canada as well as Caribbean Literature and enable them to comprehensively appreciate various cultures.  ➤ Compare and contrast the writers from around the world and their unique styles.  ➤ Gain the ability to practically analyse any literary work by identifying different aspects of literature.  ➤ Interpret the text intensively and distinguish its salient features.  ➤ Appreciate the literary works at varied levels of comprehension.  ➤ Demonstrate the ability to use the critical theories in literary evaluation.	

**Programme: M.A. in English** 

Course Outcomes (Continued)
SEMESTER: IV (Continued)

Course ID	Course Title	Course Outcome
403 Special Paper-I	Option A: Indian Writing in English (Poetry & Drama)	After the completion of this course the students will be able to:  > Understand key concepts of Indian writing in English, with a focus on poetry and drama.  > Refer to relevant contemporary literary theories.  > Express Concepts through Writing  > Demonstrate conceptual and textual understanding in tests and exams  > Develop adequate theoretical and technical training to take up area-specific research in  > M.Phil. and Ph.D. programmes.  > Enhance their knowledge skills for other related professional domains.
	Option B: American Literature	After the completion of this course the students will be able to:  > Identify the salient features of representative literary texts from across all periods of American Literature  > Contextualize the production and reception of literary texts.  > Identify major theories related to literature and apply those theoretical approaches to a wide range of texts within American Literature.  > Locate, analyse and collate available secondary resources for researching a scholarly topic within American Literature  > Write papers that construct logical and informed arguments  > Prepare and deliver effective oral presentations and arguments

**Programme: M.A. in English** 

Course Outcomes (Continued)
SEMESTER: IV (Continued)

Course ID	Course Title	Course Outcome	
404 Special Paper-II	Option A: Diasporic Literature	After the completion of this course the students will be able to:  > Understand key concepts of diasporic literature included in the syllabus.  > Refer to relevant contemporary literary theories  > Express Concepts through Writing  > Prepare and present papers, and address the questions asked.  > Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes.  > Enhance their knowledge skills for other related professional domains.	
	<u>Option B</u> : Dalit Literature	<ul> <li>After the completion of this course the students will be able to:</li> <li>Understand a different discourse from Dalit's perspective which for a long time was not visible in literary terrain.</li> <li>Discover various new perspectives for the study of India such as foregrounding dignity and humiliation as key ethical categories in the shaping of political struggles and ideological agendas in India.</li> <li>Refer to relevant theories unique to an understanding of Dalit Literature</li> <li>Express Concepts through Writing</li> <li>Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes.</li> </ul>	
405	Students' Seminar	After the completion of this course the students will be able to:  Prepare term papers on crucial theoretical engagements in literary and cultural studies by assimilating important methodological approaches.  Express Concepts through Writing  Demonstrate conceptual and textual understanding in tests and exams  Develop adequate theoretical and technical training to take up area-specific research in M.Phil. and Ph.D. programmes  Enhance their knowledge skills for other related professional domains.	

# Programe specific outcomes and course outcomes for B.A Hindi Honours

सेमेस्टर - 1

Core- 1 (CT 1) : हिंदी साहित्य का इतिहास (रीतिकाल तक)

प्रस्तुत पत्र हिंदी साहित्य का इतिहास का क्रमगत विवेचना करता है जो हिंदी साहित्य का इतिहास लेखन एवं काल विभाजन पर विस्तृत प्रकाश डालते हुए आदिकाल अर्थात संवत् 1050-1375 एवं भक्ति काल संवत 1375 से लेकर 1700 एवं रीतिकाल संवत 1700-1900 तक के कालखंड का संपूर्ण साहित्य का इतिहास की सामान्य परिचय, प्रमुख प्रवृतियां, सिद्ध साहित्य, नाथ साहित्य, जैन साहित्य, रासो साहित्य, लौकिक साहित्य, संत काव्य, सूफी काव्य, काव्य राम काव्य, कृष्ण काव्य के प्रमुख किव एवं उनकी कृतियों का परिचय रीतिकाल का सामान्य परिचय, प्रमुख प्रवृतियाँ, रीतिबद्ध साहित्य, रीतिसिद्ध साहित्य एवं रीतिमुक्त काव्यधारा की प्रमुख प्रवृतियां एवं विशेषताएँ तथा प्रमुख किव एवं उनकी रचनाएं का समग्र अध्ययन पर प्रकाश डालते हुए विस्तृत अध्ययन प्रस्तुत करता है है। रितिकालीन किवता काव्यशास्त्र की समझ को मजबूत करने के लिए महत्वपूर्ण है इसके साथ ही संवत् 1700-1900 तक की काल की किवता के बनावट को चिन्हित करती है।

Core-2 (CT2): हिंदी साहित्य का इतिहास (आधुनिक काल तक)

प्रस्तुत पत्र हिंदी साहित्य का आधुनिक काल परिवर्तनों का काल है। यह प्रश्न पत्र खड़ी बोली गद्य के विकास से लेकर अब तक विभिन्न विभागों, हिंदी नवजागरण, भारतेंदु युग, द्विवेदी युग, छायावाद, प्रयोगवाद, प्रगतिवाद, नई कविता, समकालीन कविता, हिंदी गद्य का विकास, स्वतंत्रता पूर्व हिंदी गद्य, स्वातंत्र्योत्तर हिंदी गद्य की सामाजिक, सांस्कृतिक पृष्ठभूमि की विस्तृत चर्चा करते हुए इन काल खंडों के विभिन्न कवियों एवं उनकी रचनाओं की विशेषताएँ, प्रवृतियाँ पर विस्तृत प्रकाश डालता है।

GE- 1 ऐच्छिक पाठ्यक्रम : पाश्चात्य दार्शनिक चिंतन एवं हिंदी साहित्य

प्रस्तुत पत्र अन्य आनर्स पढ़ने वाले बच्चों को पाश्चात्य दार्शनिक चिंतन एवं हिंदी साहित्य से परिचित कराता है। पाश्चात्य दार्शनिक चिंतनो में अभिव्यंजनावाद, स्वच्छंदतावाद, अस्तित्ववाद, मनोविश्लेषणवाद, मार्क्सवाद, आधुनिकतावाद, संरचनावाद, कल्पना, बिंब, फेंटेसी, मिथक एवं प्रतीक से परिचय कराते हुए विभिन्न दार्शनिक चिंतन उसे एवं उनके दर्शनों से परिचित कराते हुए विस्तृत प्रकाश डालता है। यह प्रश्न पत्र पाश्चात्य काव्यशास्त्र के विद्वानों की मान्यताओं का उल्लेख करता है। अरस्तु, लोंजाइनस, कॉलरिज आदि के साहित्य सिद्धांतों के संबंध में छात्रों को दृष्टि प्रदान करता है और विश्व साहित्य की समझ प्रस्तुत करता है।

AECC- 1 MIL हिंदी व्याकरण और संप्रेषण

प्रस्तुत पत्र के अंतर्गत हिंदी व्याकरण और संप्रेषण पढ़ाया जाता है। जिसमें वक्ता और श्रोता के बीच किस प्रकार की व्यवहारिक अड़चनें आ सकती है का वस्तुपरक अध्ययन छात्र करते हैं। यह प्रश्न पत्र छात्रों के लिए बेहद उपयोगी है। इस प्रश्न पत्र में छात्रों को हिंदी व्याकरण का संपूर्ण ज्ञान कराया जाता है।

सेमेस्टर - ॥

Core-3 (CT 3) : आदिकालीन एवं मध्यकालीन हिंदी कविता

प्रस्तुत पत्र में आदिकालीन एवं मध्यकालीन हिंदी किवयों की किवताओं का विस्तृत अध्ययन करते हुए उनकी काव्यगत विशेषताएं उनकी सामाजिक, सांस्कृतिक चिंतन पर विस्तृत प्रकाश डालता है। इन किवयों में विद्यापित, कबीर, जायसी, सूरदास, तुलसीदास, रहीम, मीराबाई, बिहारी, धनानंद, रसखान, आदि किवयों के काव्य पर विस्तृत प्रकाश डालते हुए उनके सामाजिक सांस्कृतिक संदर्भों की विस्तृत व्याख्या करते हुए तत्कालीन सामाजिक राजनीतिक परिस्थितियों पर प्रकाश डालता है। तथा इस समय के किवयों की भाषा पर विस्तृत चर्चा प्रस्तुत करता है।

Core-4 (CT4) : आधुनिक हिंदी कविता छायावाद तक

प्रस्तुत पत्र भारतेंदु युग से छायावादी युग तक की किवता को चिन्हित करता है। इन कालखंडों में किवता ब्रजभाषा की गोद से निकलकर शुद्ध खड़ी बोली में रची जाने लगी थी इस पर भी विस्तृत विचार प्रस्तुत किया जाता है। इस समय के किवयों में भारतेंदु हिरश्चंद्र, अयोध्या सिंह उपाध्याय हिरऔध, मैथिलीशरण गुप्त, रामनरेश त्रिपाठी, जयशंकर प्रसाद, सूर्यकांत त्रिपाठी निराला, सुमित्रानंदन पंत तथा महादेवी वर्मा की किवता पर विस्तृत विवेचना प्रस्तुत की जाती है।

GE 2 ऐच्छिक पाठ्यक्रम (आधुनिक भारतीय कविता)

प्रस्तुत पत्र आधुनिक भारतीय भाषा के विभिन्न भाषाओं में रचित विभिन्न कवियों की कविताओं का विस्तृत अध्ययन कर उन पर प्रकाश डाला जाता है। जिसमें असमिया, उर्दू, तमिल, बांग्ला, संस्कृत, गुजराती, कश्मीरी आदि भाषाओं की कवियों की कविताओं का विस्तृत अध्ययन प्रस्तुत करता है।

सेमेस्टर - III

Core- 5 (CT 5) : भाषा विज्ञान एवं हिंदी भाषा

प्रस्तुत पत्र छात्रों के भाषा संबंधी ज्ञान को बढ़ाने वाला है। उन्हें भाषा विज्ञान की विस्तृत जानकारी प्रदान करता है एवं हमारी लिपि के अध्ययन एवं देवनागरी लिपि, राजभाषा, राष्ट्रभाषा, संपर्क भाषा एवं भाषा विज्ञान की विभिन्न अध्ययन पद्धतियों पर विस्तृत प्रकाश डालने वाला है।

Core- 6 (CT 6): भारतीय काव्यशास्त्र

प्रस्तुत पत्र भारतीय काव्यशास्त्र की परंपरा को समझने में सहायक है जो साहित्य के स्वरूप और भारतीय आलोचना शास्त्र की तात्विक दृष्टि से छात्र को अवगत कराता है।

Core- 7 (CT 7) : हिंदी कहानी

प्रस्तुत पत्र हिंदी कहानी के विभिन्न काल खंडों में रची गई कहानियों को संजोरी हुई है। इसमें प्रेमचंद से लेकर निर्मल वर्मा, ज्ञानरंजन, कृष्णा सोबती, आदि तक की कहानियां संकलित है। यह कहानियां समाज और व्यवस्था का अंतरंग चेहरा सामने उभार कर लाती है। इस प्रपत्र में कुल 11 कहानियां शामिल हैं जो छात्रों को कहानी कला से परिचित कराते हुए कहानियों का विस्तृत अध्ययन प्रस्तुत करता है।

SEC - 1 (SEC1T) साहित्य और हिंदी सिनेमा

इस पत्र का उद्देश्य छात्रों को सिनेमा के क्षेत्र से अवगत कराना है। सिनेमा के क्षेत्र में कैमरा क्या भूमिका निभाती है। इस पर प्रकाश डाला गया। कुछ चुनिंदा फिल्मों भी साथ में लगे हैं। आज के समय में सिनेमा छात्रों को रोजगार प्रदान कर रहा है। अतः इसका अध्ययन आवश्यक है। इस प्रश्न पत्र में सिनेमा और समाज, मनोरंजन, सिनेमा का तकनीकी पक्ष, हिंदी सिनेमा का संक्षिप्त इतिहास, साहित्य और सिनेमा, फिल्म एवं समीक्षा से संबंधित चीजें अध्ययन की जाती है।

सेमेस्टर - IV

Core- 8 (CT 8) : छायावादोत्तर हिंदी कविता

प्रस्तुत पत्र छायावादोत्तर हिंदी कविता की शिल्प और शैली से छात्रों को अवगत कराता है इस प्रश्न पत्र की कविताएं छात्रों के दिमाग में रोशनी पैदा करती है यह कविता या आज के जीवन शैली में व्यक्ति को मनुष्य बनाए रखने की कवायद करती है Core- 9 (CT 9) : पाश्चात्य काव्यशास्त्र

प्रस्तुत पत्र पाश्चात्य काव्यशास्त्र के विद्वानों की मान्यताओं का उल्लेख करता है। यह प्लेटो, अरस्तू, लोंजाइनस, कॉलिज, इलियट, के साहित्य सिद्धांतों के संबंध में छात्रों को दृष्टि प्रदान करता है और विश्व साहित्य की समझ छात्रों को सामने प्रस्तुत करता है, जिससे हिंदी के विद्यार्थी विश्व साहित्य से अपने को समृद्धि कर सकें तथा पाश्चात्य चिंतन से परिचित होते हुए हिंदी साहित्य में अपना अवदान कर सकें।

Core- 10 (CT 10) : हिंदी उपन्यास

प्रस्तुत पत्र छात्रों के लिए अत्यंत उपयोगी है। हिंदी उपन्यास की यह कड़ी मानव जीवन की कठिनाइयों को परत दर परत खोलने में सक्षम है। यह पत्र छात्रों में गहण अध्ययन और धैर्य तथा मुश्किल समय में जीवन की दिशा सुलझाने में सक्षम है। इस प्रश्न पत्र में

SEC - 2 (SEC2T) : अनुवाद सिद्धांत और प्रविधि

प्रस्तुत पत्र में अनुवाद के महत्व को समझाया गया है। अनुवाद की व्यवसायिक संभावनाएं क्या है। ज्ञान, विज्ञान और सामाजिक विज्ञान के क्षेत्र में कैसे अनुवाद व्यवहार की आवश्यकता होती है। इसलिए यह प्रश्न पत्र आज के समय में महत्वपूर्ण है। इसमें अनुवाद के सिद्धांतों के संदर्भ में समझाया जाता है। अंग्रेजी से हिंदी अनुवाद और हिंदी से अंग्रेजी अनुवाद के व्यवहार से अवगत कराया जाता है। आज के तकनीकी समय में जरूरी हो जाता है कि छात्र अनुवाद कार्य से अवगत हों। जो उनके कैरियर के लिए महत्वपूर्ण है। प्रस्तुत पत्र में अनुवाद से संबंधित अनुवाद के प्रकार, अनुवाद के महत्व, अनुवाद के शैली, साहित्यिक अनुवाद, कार्यालयीन अनुवाद इत्यादि चीजों पर विस्तृत प्रकाश डालकर छात्रों को अनुवाद से संबंधित विस्तृत ज्ञान प्रदान किया जाता है।

सेमेस्टर - V

Core- 11 (CT 11) : हिंदी नाटक एवं एकांकी

प्रस्तुत पत्र हिंदी नाटक एवं एकांकी का है। नाटक और एकांकी का यह प्रश्न पत्र देश की परतंत्रता की वेडियों का उल्लेख करता है। अंधेर नगरी नाटक में पराधीन भारत के वास्तविक सामाजिक, राजनीतिक स्थिति का चित्रण किया गया है, अन्य नाटक एवं एकांकी में भी देश के पराधीन एवं स्वाधीन सामाजिक, राजनीतिक विसंगतियों पर फोकस करते हुए छात्रों को देश की समाज की परिस्थितियों से अवगत कराया जाता है एवं नाटक और एकांकी की भेद को स्पष्ट करते हुए नाटककार एवं एकांकी कार के उद्देश्यों का सामाजिक प्रतिफलन पर विस्तृत अध्ययन किया जाता है।

Core- 12 (CT 12) : हिंदी निबंध एवं अन्य गद्य विधाएं

प्रस्तुत पत्र में निबंध के अतिरिक्त जीवनी आत्मकथा एवं संस्मरण जैसी गद्य विधायों को जोड़ा गया है। यह छात्रों को वैचारिक और समग्र विकास के लिए महत्वपूर्ण प्रश्न पत्र है। ऐसे विषय छात्रों के जिज्ञासा को शांत करने में सहायक होंगे एवं उनके ज्ञान वर्धन में भी यह पत्र सहायक है।

DSE - 1 (DSE 1T) : प्रेमचंद्र

प्रस्तुत पत्र प्रेमचंद की रचना प्रक्रिया की विभिन्न विधाओं उपन्यास, नाटक, निबंध एवं कहानी का पेपर है। यह पत्र प्रेमचंद का विस्तृत अध्ययन प्रस्तुत कर गद्य की विभिन्न विधाओं में प्रेमचंद की दक्षता का परिचय देता है। यह पत्र उपन्यास, कहानी, नाटक, निबंध के स्वरूप और संरचना के बारे में बताता है। यह पत्र रुचिकर और छात्रों को जिज्ञासा बढ़ाने वाला है। विषय वस्तु की बनावट कठिन नहीं है, एवं छात्रों के लिए अत्यंत उपयोगी है।

DSE -2 (DSE 2T) प्रवासी साहित्य

प्रस्तुत पत्र प्रवासी साहित्य की अवधारणा से छात्रों को परिचित कराता है। प्रवासी साहित्य क्या है भारत के अंतिरिक्त किन-किन देशों में हिंदी साहित्य रचे जा रहे हैं। इन सारी चीजों के माध्यम से छात्रों को विश्व परिदृश्य में हिंदी की क्या स्थिति है। इससे परिचित कराता है। इस पत्र में 4 प्रवासी उपन्यास तथा 7 कहानियों को शामिल किया गया है। उपन्यास और कहानियों के माध्यम से प्रवासी साहित्य में उपन्यास और कहानी से परिचित होकर हिंदी के लेखकों से तुलनात्मक अध्ययन करने में सुविधा प्रदान करने वाला यह पत्र है।

सेमेस्टर - VI

Core- 13 (CT 13) : हिंदी की साहित्यिक पत्रकारिता

प्रस्तुत पत्र साहित्यिक पत्रकारिता का अर्थ, अवधारणा और महत्व स्पष्ट करते हुए भारतेंदुयुगीन, द्विवेदी युगीन, प्रेमचंद और छायावादी तथा स्वातंत्र्योत्तर साहित्यिक पत्रकारिता, समकालीन साहित्य पत्रकारिता का परिचय और प्रवृत्तियों का विश्लेषण करते हुए साहित्यिक पत्रकारिता में अनुवाद की भूमिका पर प्रकाश डालता है। भारतवर्ष के विभिन्न स्थानों से प्रकाशित होने वाले महत्वपूर्ण हिंदी की साहित्यिक पत्र-पत्रिकाओं का परिचय देते हुए उन पर विस्तृत विवेचना प्रस्तुत करता है। यह छात्रों के लिए बहुत ही उपयोगी पत्र है। इस पत्र के माध्यम से छात्रों में पत्रकारिता से संबंधित विस्तृत जानकारी प्रस्तुत की जाती है तथा छात्रों में पत्रकारिता के प्रति रुचि जागृत करने का प्रयास किया जाता है।

Core- 14 (CT 14) : प्रयोजनमूलक हिंदी

प्रस्तुत पत्र में प्रयोजनमूलक हिंदी की प्रयोजनीयत्ता पर प्रकाश डाला गया है। इस पत्र में ही मात्र भाषा एवं अन्य भाषा के रूप में हिंदी संपर्क भाषा, राजभाषा के रूप में हिंदी, बोल चाल की सामान हिंदी, मानक हिंदी और साहित्यिक हिंदी तथा संविधान में हिंदी विषय पर विस्तृत विवेचना किया गया है। हिंदी की विभिन्न शैलियां हिंदी, उर्दू और हिंदुस्तानी का भी चर्चा इस पत्र में किया गया है। हिंदी भाषा का उद्भव और विकास तथा उसके मानकीकरण पर विचार करते हुए हिंदी के प्रयोग क्षेत्र प्रयोजनमूलक हिंदी के प्रमुख प्रकार, कार्यालयों, हिंदी और उसके प्रमुख लक्षण, वैज्ञानिक हिंदी और उसके प्रमुख लक्षण व्यवसाय और उसके प्रमुख लक्षण, संचार माध्यम की हिंदी और उसके प्रमुख लक्षण पर विस्तृत विवेचना प्रस्तुत कर छात्रों के लिए उपयोगी बनाने का प्रयास किया गया है।

DSE -3 (DSE 3T): लोक साहित्य

प्रस्तुत पत्र में हमारे देश की लोक साहित्य की परंपरा पर प्रकाश डाला गया है। भावी पीढ़ी साहित्य की इन विशेषताओं से अवगत हों। इसके लिए इसमें लोकगीत, लोककथा, एवं लोकनाट्य को जोड़ा गया है। इस देश की बहुरंगी संस्कृति साहित्य में अपनी झलक देती है। संस्कार से संबंधित गीत एवं नौटंकी, विदेशिया इत्यादि इसमें समाहित किए गए हैं। साथ ही लोक संभावित मुहावरे, कहावतें, लोकोक्तियां, पहेलियां, लोक नृत्य एवं लोक संगीत को भी इसमें जोड़ा गया है जो छात्रों को हमारे देश की बहुविध संस्कृति से परिचय कराता है।

DSE -4 (DSE 4T) : अस्मितामूलक विमर्श और हिंदी साहित्य

प्रस्तुत पत्र में विभिन्न विमर्श जैसे दलित विमर्श, स्त्री विमर्श, आदिवासी विमर्श समाहित किए गए हैं। कथा-साहित्य और कविताओं के द्वारा इन विमर्शों को जीवंत स्तर पर बताने का प्रयास किया गया है। पाठ्यक्रम में लगे हुए विमर्श आधुनिक जीवन मूल्यों पर आधारित हैं। विद्यार्थियों के लिए इनका पठन-पाठन अत्यंत आवश्यक है।

Programe specific outcomes and course outcomes of B.A General

#### **B.A General**

#### सेमेस्टर - ।

Core- 1 (DSC-1A) : हिंदी साहित्य का इतिहास

प्रस्तुत पत्र हिंदी साहित्य का इतिहास का क्रमगत विवेचना करता है जो हिंदी साहित्य का इतिहास लेखन एवं काल विभाजन पर विस्तृत प्रकाश डालते हुए आदिकाल अर्थात संवत् 1050-1375 एवं भिक्त काल संवत 1375 से लेकर 1700 एवं रीतिकाल संवत 1700-1900 तक के कालखंड का संपूर्ण साहित्य का इतिहास की सामान्य परिचय, प्रमुख प्रवृतियां, सिद्ध साहित्य, नाथ साहित्य, जैन साहित्य, रासो साहित्य, लौकिक साहित्य, संत काव्य, सूफी काव्य, काव्य राम काव्य, कृष्ण काव्य के प्रमुख किव एवं उनकी कृतियों का परिचय रीतिकाल का सामान्य परिचय, प्रमुख प्रवृतियाँ, रीतिबद्ध साहित्य, रीतिसिद्ध साहित्य एवं रीतिमुक्त काव्यधारा की प्रमुख प्रवृतियां एवं विशेषताएँ तथा प्रमुख किव एवं उनकी रचनाएं का समग्र अध्ययन पर प्रकाश डालते हुए विस्तृत अध्ययन प्रस्तुत करता है है। रितिकालीन किवता काव्यशास्त्र की समझ को मजबूत करने के लिए महत्वपूर्ण है इसके साथ ही संवत् 1700-1900 तक की काल की किवता के बनावट को चिन्हित करती है। हिंदी साहित्य का आधुनिक काल परिवर्तनों का काल है। यह प्रश्न पत्र खड़ी बोली गद्य के विकास से लेकर अब तक विभिन्न विभागों, हिंदी नवजागरण, भारतेंदु युग, द्विवेदी युग, छायावाद, प्रयोगवाद, प्रगतिवाद, नई किवता, समकालीन किवता, हिंदी गद्य का विकास, स्वतंत्रता पूर्व हिंदी गद्य, स्वातंत्र्योत्तर हिंदी गद्य की सामाजिक, सांस्कृतिक पृष्ठभूमि की विस्तृत चर्चा करते हुए इन काल खंडों के विभिन्न किवयों एवं उनकी रचनाओं की विशेषताएँ, प्रवृतियाँ पर विस्तृत प्रकाश डालता है।

#### AECC -1 (MIL -ELECTIVE) हिंदी संप्रेषण

इस पत्र में संप्रेषण के सिद्धांत, संप्रेषण के प्रकार, संप्रेषण की मौखिक एवं लिखित भाषा, वाचिक क्षमता, वाचन लेखन, डॉक्युमेंटिंग, रिपोर्ट लेखन, नोट्स लेखन, पत्र लेखन, सूचना लेखन इत्यादि पर विस्तार से चर्चा की गई है। यह पत्र छात्रों को भाषिक तौर पर लिखने पढ़ने और बोलने में प्रभावकारी बनाता है।

#### सेमेस्टर - ॥

Core- 3 (DSC-1B) : मध्यकालीन हिंदी कविता

प्रस्तुत पत्र में मध्यकालीन हिंदी कवियों की कविताओं का विस्तृत अध्ययन करते हुए उनकी काव्यगत विशेषताएं उनकी सामाजिक, सांस्कृतिक चिंतन पर विस्तृत प्रकाश डालता है। इन कवियों में कबीर, जायसी, सूरदास, तुलसीदास, रहीम, मीराबाई, बिहारी, धनानंद, रसखान, आदि कवियों के काव्य पर विस्तृत प्रकाश डालते हुए उनके सामाजिक सांस्कृतिक संदर्भों की विस्तृत व्याख्या करते हुए तत्कालीन सामाजिक राजनीतिक परिस्थितियों पर प्रकाश डालता है। तथा इस समय के कवियों की भाषा पर विस्तृत चर्चा प्रस्तुत करता है।

#### AECC -2 (MIL-2) हिंदी व्याकरण और संप्रेषण

इस पत्र में हिंदी भाषा का व्याकरण अध्ययन किया जाता है। संज्ञा, सर्वनाम, विशेषण, क्रिया एवं अव्यय का परिचय कराते हुए उपसर्ग, प्रत्यय तथा समास, पर्यायवाची शब्द, विलोम शब्द, अनेक शब्दों के लिए एक शब्द, शब्द शुद्धि, वाक्य शुद्धि, मुहावरे, लोकोक्तियां, पल्लवन एवं संक्षेपन का अध्ययन कराया जाता है। साथ ही साथ संप्रेषण की अवधारणा और महत्व, संप्रेषण के प्रकार, संप्रेषण के माध्यम, संप्रेषण की तकनीक, साक्षात्कार, भाषण कला एवं रचनात्मक लेखन का परिचय कराया जाता है। यह पत्र छात्रों को भाषिक तौर पर लिखने पढ़ने और बोलने में प्रभावकारी बनाता है।

सेमेस्टर -॥

Core- 5 (DSC-1C) : आधुनिक हिंदी कविता

प्रस्तुत पत्र भारतेंदु युग से छायावादी युग तक की कविता को चिन्हित करता है। इन कालखंडों में कविता ब्रजभाषा की गोद से निकलकर शुद्ध खड़ी बोली में रची जाने लगी थी इस पर भी विस्तृत विचार प्रस्तुत किया जाता है। इस समय के कवियों में भारतेंदु हरिश्चंद्र, अयोध्या सिंह उपाध्याय हरिऔध, मैथिलीशरण गुप्त, रामनरेश त्रिपाठी, जयशंकर प्रसाद, सूर्यकांत त्रिपाठी निराला, नागार्जुन, अज्ञेय, नरेश मेहता की कविता पर विस्तृत विवेचना प्रस्तुत की जाती है।

SEC 1 (SEC 1T) भाषा शिक्षण

प्रस्तुत पत्र के अंतर्गत हिंदी भाषा एवं उसके शब्द भंडार, भाषिक प्रशिक्षण के विभिन्न स्तर, भाषा विज्ञान के मूलाधार, पर्यायवाची, समानार्थक, विलोम शब्द, देवनागरी लिपि का इतिहास तथा वैशिष्ट्य, देवनागरी लिपि की वैज्ञानिकता, कंप्यूटरीकरण की दृष्टि से संक्षेपन, संशोधन की आवश्यकता, हिंदी का अनुप्रयोगात्मक व्याख्यान, शैली विज्ञान, हिंदी भाषा के विशिष्ट शब्दों का भारतीय भाषाओं के संदर्भ में तुलनात्मक अध्ययन तथा हिंदी भाषा का भविष्य पर विस्तृत विवेचन करते हुए विद्यार्थियों को भाषा के परीक्षण और मूल्यांकन के लिए तैयार किया गया है। अतः यह विषय विद्यार्थियों के लिए ज्ञान वर्धन के लिए लाभकारी है।

सेमेस्टर - IV

Core- 7 (DSC-1D) : हिंदी गद्य साहित्य

इस पत्र में हिंदी गद्य के विभिन्न विधाओं का सामान्य परिचय देते हुए कहानी, उपन्यास, निबंध जैसी विधाएं पढ़ाई जाती हैं। इससे छात्रों में हिंदी गद्य की आधुनिकता को समझने की दृष्टि विकसित होती है। यह पत्र छात्रों में धैर्य और मुश्किल समय में जीवन की दिशा सुलझाने में सक्षम हैं। ऐसे विषय छात्रों के जिज्ञासा को शांत करने में सहायक होंगे।

SEC- 2 (SEC2T) : अनुवाद विज्ञान

प्रस्तुत पत्र में अनुवाद के महत्व को समझाया गया है। अनुवाद की व्यवसायिक संभावनाएं क्या है। ज्ञान, विज्ञान और सामाजिक विज्ञान के क्षेत्र में कैसे अनुवाद व्यवहार की आवश्यकता होती है। इसलिए यह प्रश्न पत्र आज के समय में महत्वपूर्ण है। इसमें अनुवाद के सिद्धांतों के संदर्भ में समझाया जाता है। अंग्रेजी से हिंदी अनुवाद और हिंदी से अंग्रेजी अनुवाद के व्यवहार से अवगत कराया जाता है। आज के तकनीकी समय में जरूरी हो जाता है कि छात्र अनुवाद कार्य से अवगत हों। जो उनके कैरियर के लिए महत्वपूर्ण है। प्रस्तुत पत्र में अनुवाद से संबंधित अनुवाद के प्रकार, अनुवाद के महत्व, अनुवाद के शैली, साहित्यिक अनुवाद, कार्यालयीन अनुवाद इत्यादि चीजों पर विस्तृत प्रकाश डालकर छात्रों को अनुवाद से संबंधित विस्तृत ज्ञान प्रदान किया जाता है।

AECC -4 (CORE) MIL : हिंदी भाषा और संप्रेषण

प्रस्तुत पत्र के अंतर्गत हिंदी भाषा और संप्रेषण पढ़ाया जाता है। जिसमें वक्ता और श्रोता के बीच किस प्रकार की व्यवहारिक अड़चनें आ सकती है का वस्तुपरक अध्ययन छात्र करते हैं। यह प्रश्न पत्र छात्रों के लिए बेहद उपयोगी है। इस प्रश्न पत्र में छात्रों को हिंदी भाषा का संपूर्ण ज्ञान कराया जाता है।

सेमेस्टर -V

DSE -1A (DSE1AT) : कबीर या हिंदी निबंध

प्रस्तुत पत्र में कबीर के साहित्य का विस्तृत अध्ययन करते हुए कबीर के सामाजिक, राजनीतिक संदर्भ का अध्ययन प्रस्तुत

किया गया है। साथ ही कबीर के पदों का विस्तृत विवेचन करते हुए तत्कालीन समाज एवं साहित्य में पड़ रहे प्रभाव से विद्यार्थियों को अवगत कराया गया है।

SEC -3 (SEC3T) भाषा कंप्यूटिंग

कंप्यूटर ने जब बाजार में कदम रखा तो कंप्यूटर के मुख्य भाषा अंग्रेजी बनी हुई थी। हिंदुस्तान में इस बात की आवश्यकता महसूस की गई की कंप्यूटर पर हिंदी के प्रयोग से उनके कार्य में सरलता आ सकती है। आज यह बेहद आवश्यक है कि कंप्यूटर पर हिंदी प्रयोग की जानकारी हो। यह कोर्स विद्यार्थियों को इससे संबंधित सभी प्रकार की जानकारी प्रदान करता है। इसमें कंप्यूटर मुद्रण, सूचना प्रौद्योगिकी का स्वरूप, संचार प्रौद्योगिकी की प्रयोजनीय शब्दावली, संचार भाषा के रूप में हिंदी की उपलब्धियां, कंप्यूटर में हिंदी के विभिन्न प्रयोग, कंप्यूटर अनुवाद, रेडियो और टेलीविजन के कंप्यूटर साधित कार्यक्रम की विस्तृत जानकारी छात्रों को दी जाती है जिससे छात्र अपने आप को कार्यकारी बना सकें।

GE - 1 (GE1T) : संपादन प्रक्रिया और साज-सज्जा

इस पत्र के अंतर्गत संपादन की अवधारणा, उद्देश्य, संपादन कला के सामान्य सिद्धांत, संपादक और उप संपादक की योग्यता तथा उसके दायित्व और महत्व, संपादकीय लेखन के प्रमुख तत्व एवं प्रविधि, संपादकीय का सामाजिक प्रभाव, समाचार पत्र और पत्रिका के विविध स्तंभों की योजना और उसका संपादन हिंदी के राष्ट्रीय प्रांतीय समाचार पत्रों की भाषा, अंचलिक प्रभाव और वर्तनी की समस्या, साज सज्जा की तैयारी इत्यादि विषयों पर छात्रों को विस्तृत जानकारी दी जाती है। जिससे छात्र अपने कैरियर में संपादन की ओर अग्रसर हो सके हैं और अपने कैरियर के लिए तैयार हो सके।

सेमेस्टर - VI

DSE -1B DSE1BT) : सूर्यकांत त्रिपाठी निराला

प्रस्तुत पत्र में सूर्यकांत त्रिपाठी निराला के कविताओं का विस्तृत अध्ययन करते हुए नाराला के सामाजिक, राजनीतिक संदर्भ का अध्ययन प्रस्तुत किया गया है। साथ ही निराला की कविताओं का विस्तृत विवेचन करते हुए तत्कालीन समाज एवं साहित्य में पड़ रहे प्रभाव से विद्यार्थियों को अवगत कराया गया है।

SEC -4 (SEC4T) : चल चित्र लेखन

इस पत्र का उद्देश्य छात्रों को सिनेमा के क्षेत्र से अवगत कराना है। सिनेमा के क्षेत्र में कैमरा क्या भूमिका निभाती है। इस पर प्रकाश डाला गया। कुछ चुनिंदा फिल्मों भी साथ में लगे हैं। आज के समय में सिनेमा छात्रों को रोजगार प्रदान कर रहा है। अतः इसका अध्ययन आवश्यक है। इस प्रश्न पत्र में सिनेमा और समाज, मनोरंजन, सिनेमा का तकनीकी पक्ष, हिंदी सिनेमा का संक्षिप्त इतिहास, साहित्य और सिनेमा, फिल्म एवं समीक्षा से संबंधित चीजें अध्ययन की जाती है। साथ ही इस प्रश्न पत्र का उद्देश्य हिंदी भाषा विद्यार्थियों को पटकथा के क्षेत्र से अवगत कराना है। फिल्मों, धारावाहिक का संवाद लेखन किस प्रकार किया जाता है संवादों की सैद्धांतिकी क्या है इस पर प्रकाश डाला जाता है। यह क्षेत्र छात्रों के लिए नए रास्ते खोलने वाला है।

GE 2 सर्जनात्मक लेखन के विविध क्षेत्र

इस पत्र के अंतर्गत रिपोर्ताज लेखन, फीचर लेखन, साक्षात्कार, स्तंभ लेखन, दृश्य सामग्री, आर्थिक पत्रकारिता, खेल पत्रकारिता, ग्रामीण और विकास पत्रकारिता, फोटो पत्रकारिता की विस्तृत जानकारी दी गई है। यह पत्र छात्रों के लिए उपयोगी है। यह पत्र छात्रों को अपने भविष्य निर्माण में कार्यकारी सिद्ध होगा।

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF B.A. HONOURS IN SANSKRIT PROGRAMME

#### **Program Specific Outcomes**

Of

# The students graduating with the Degree B.A. (Honours) in Sanskrit and those studying GE & AEC Courses in Sanskrit

- 1. Sanskrit is one of the most pure, ancient and scientific language. Our civilisation, culture, knowledge well-preserved in Sanskrit language. It shows path to lead healthy and positive life and helps human being for his all-round development.
- 2. It is expected that at the end of the programme students will get a fair knowledge of the development of Sanskrit language and literature.
- 3. In this programme students will enable them to better understand the social relationship and cultural value.
- 4. Students will be able to sit for various competitive exams, like UPSC, WBPSC, SSC etc. after this program.
- 5. One can realized material science, spiritual science including aesthetics by the study of this language.
- 6. The syllabus has been designed keeping in mind the overall development of the student.

#### **Department of Sanskrit**

#### **Programme: Sanskrit Honours**

#### **Course Outcomes**

Course ID	Course Title	Outcome
CC-1	Classical Sanskrit Literature (Poetry)	The literary and poetic power improved by this course.
CC-2	Classical Sanskrit Literature (Prose)	The methods of character-building will be gaining by the prose literature.
CC-3	Critical Survey of Sanskrit Literature	As a student of literature must know the history of literature.it helps to know our tremendous knowledge.
CC-4	Self-Management in the Gītā	Gita is the mirror of self-management. After reading this student will understand how to manage life?
CC-5	Classical Sanskrit Literature (Drama)	There are many benefits to life by the drama. Students will able to know the Practical qualities.
CC-6	Poetics and Literary Criticism	By this student will able to know the poetics values of literature. Not only Sanskrit but all literature.
CC-7	Indian Social Institutions and Polity	Students will know the basic idea of a good society and good governance system.
CC-8	Indian Epigraphy, Palaeography and Chronology	Knowledge of Script science and the methods of writing will gain by this course.
CC-9	Modern Sanskrit Literature	Students will able to know by this, what's the writing style in this modern era? He can able to know a new mythology of writings by this.
CC-10	Sanskrit and World Literature	Its is vast topic to know the position of Sanskrit all over the World.
CC-11	Vedic Literature	Students will able to know the source of their knowledge by reading the Vedic literature.
CC-12	Sanskrit Grammar	Grammar is most important for a student.
CC-13	Indian Ontology and Epistemology	This course will be helpful for knowing the internal value of a man.
CC-14	Sanskrit Composition and Communication	By this student will gain their knowledge to writing in Sanskrit language.

#### **Department of Sanskrit**

#### **Programme: Sanskrit Honours**

#### **Course Outcomes (Continued)**

Course ID	Course Title	Outcome
DSE-1	Art of Balanced Living	This course will be helpful to build life in right way.
DSE-2	Theatre & Dramaturgy	For a play writer this course is essential.
DSE-3	Sanskrit Linguistics	For a student of literature linguistic study is important for his literary gaining.
DSE-4	Environmental Awareness in Sanskrit Literature	Environment is most important for every human being. Knowledge of environmental science will gain by this course.
SEC-1	Acting & Script Writing	Students will learn the techniques of writing literature by this course.
SEC-2	Sanskrit Meters and Music	In this course students get the knowledge of musicology.
GE-3	Fundamentals of Indian Philosophy	Students develop sincere knowledge through Philosophy.
GE-4	Basic Principles of Indian Medicine System (Ayurveda)	After this course student can study Ayurveda science.

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF B.A. HONOURS IN HISTORY AND M.A. IN HISTORY PROGRAMMES

#### **Program Specific Outcomes**

#### Of

# The students graduating with the Degree B.A. (Honours) in History and those studying GE Courses in History

After completing the undergraduate programme in History, the student is expected to:

- 1. Explain noteworthy developments within the historical contexts, covered in the syllabus.
- 2. Identify and explore the importance of historical changes that take place within a society or culture
- 3. The students of History (Hons) will catch a wide overview of the chronological span ranging from the prehistoric to the contemporary period with a center of attention on history of Europe and Asia.
- 4. The students will get knowledge about historical trends, historiography and historical debates after the completion of their course.
- 5. Situate historical arguments within a larger scholarly narrative.
- 6. University has designed the syllabus following the rising demands of the students to appear NET/SET or other academic competitive examinations like, Teacher Eligibility Test, School Service Commission, and other competitive examinations like West Bengal Civil Service and I.C.S. etc with utmost care.
- 7. In the final year i.e. 6<sup>th</sup> Semester students have to prepare a project paper which will offer the students a feeling of independent research first time and act as groundwork for their future research activities.
- 8. After completion of the programme students learn to deliver seminar speech as department organize student's seminar with a regular interval in each session.

**Programme: B.A. Honours in History** 

# Course Outcomes <u>SEMESTER: I</u>

Course ID	Course Title	Course Outcome
CC1	Greek and Roman Historians	In the first semester students of our college students have to read about the new form of inquiry (historia) in Greece in the sixth century BCE and Roman historiography with the history of ancient
CC2	Early Historic India (proto history to 6 <sup>th</sup> century B.C.	<ul> <li>Indian and historiography which will help them to understand the rich heritage of history and history writings of world and India.</li> <li>After the completion of this course the students will be able to:</li> <li>Understand the significance of ancient historians of Greece and Rome which will help them to change of history writings through the ages.</li> <li>They will be able to understand the trajectory of prehistory in India's past and transition to proto-history from prehistory along with their characteristic features.</li> <li>The students will be able to understand the pre and early historic technological, educational, literary development and their contribution in the development of human civilization in India. They will also be able to understand the significance of Vedic history and the issues related to them.</li> </ul>
AECC-1	AECC-1: English/MIL	In our State, when the students pass out from High School and join college with the subject of History, as most of them hail from Bengali Medium, they face a difficulty during in the first few days to read the books written in English language but As the CBCS programme suggests we have <b>Ability Enhancement Compulsory Course</b> in the first semester, where they learn about the language with grammatical correctness, which enables them to speak and write English with fluency.
GE-1	Theories of the Modern state	The students of Generic-1 subject of other departments have to read GE 1 and after completion of the semester they will be able to understand the political theories of early Europe that help them to be a good citizen.

**Programme: B.A. Honours in History** 

Course Outcomes (Continued)
<u>SEMESTER: 2</u>

Course ID	Course Title	Course Outcome	
CC3	Mauryan and Gupta Empire	After the completion of this course the students will be able to:  > Understand the Polity, Economy, and Social-Cultural Aspects of Maurya Empire that will help them to understand the state formation of early India.	
CC4	Political History of Early Medieval India (600 AD -1200 AD)	<ul> <li>Students will be acquainted with the history of classical Gupta age that assists them to understand the emergence of early medieval period of India.</li> <li>Completing the semester-II students will be able to realize the emergence of feudal system in early medieval India which will help students to understand the difference between the history of feudal society and capitalism.</li> </ul>	
AECC-2	ENVS	In the 2 <sup>nd</sup> SEM they have ENVS as their <b>AECC-2</b> - Where they learn about the environment and the different movement about the protection of environment. Eventually this programme makes them an environment friendly citizen with necessary awareness. As the programme suggest, they have to prepare a project report based on their survey on some environmental crisis.	
GE-2	Science and Empire	GE 2 course plans to stress on the increase of western science in colonial India with multi-dimensional features and endeavors. It facilitates the students to know the nature of science-related explorations, science studies and research activities by government and public initiatives, during this period. It helps students to learn the opening of western medicine in colonial India and as well about the indigenous medicine. This course needs to make the students understand the nature and development of science, technology and medicine in colonial India, which encourages them to more study and research on these new expanding fields of history.	

**Programme: B.A. Honours in History** 

# Course Outcomes (Continued) <u>SEMESTER: 3</u>

Course ID	Course Title	Course Outcome
CC5	Delhi Sultanate	<ul> <li>After the completion of this course the students will be able to:</li> <li>Understand and be well-known with the diverse kinds of sources available for writing histories of various aspects of life under Delhi sultanate.</li> <li>Capable to gravely assess the several perspectives from which</li> </ul>
CC6	The Feudal Society	<ul> <li>Capable to gravely assess the several perspectives from which historians have discussed the politics, cultural developments and economic trends in India throughout the period of study.</li> <li>Discuss the chief currents of expansion in the cultural sphere that is Bhakti Movement, Sufism, architecture and art.</li> <li>Able to clarify the emergence of medieval polities and feudal institutions.</li> </ul>
CC7	Akbar and the Making of Mughal India	<ul> <li>Explain the trends in the medieval economy and their impact on social, cultural and religious life.</li> <li>Analyze the emergence of National Kingship in Europe.</li> <li>Significantly assess the most important debates amid scholars concerning various changes that took place during the reign of Akbar.</li> <li>Elucidate, in an interrelated method, the processes of state formation, integration and agrarian expansion, religious tolerance as well as trade and commercial processes.</li> </ul>
SEC-1	Archaeology and Museum Making in Colonial India 'or' Literature and History: Bengal 'or' Art Appreciation an introduction to Indian art	<ul> <li>In this course SEC 1,</li> <li>Students will able to understand the process of development of archaeological knowledge and explorations. The study about museum is essential taking into consideration this is a skill based course; the beginners would get to know the actual working of these places of cultural importance. Students can enter in work places of Archaeological institutions.</li> <li>These course guided students how to differentiate the history and literature writings and also teach them to read the historical literature to better understand the society and politics of past. That will help them to work in the field of research oriented jobs.</li> <li>Make out the historical circumstance, socio-economic processes that went in the configuration of art and architectural forms, through specially selected examples. Portray the stylistic features of a variety of case studies from different fields of art.</li> <li>As the programmes suggest and teach some skill to help them to have a command on the language based on different environment and situations.</li> </ul>
GE3	Some Perspectives on Women's Rights in India	<ul> <li>In this course GE 3,</li> <li>pupils will able to understand the various stages of development in India to promote women's rights by government and other non-government institution.</li> </ul>

#### **Programme: B.A. Honours in History**

#### **Course Outcomes (Continued)**

#### **SEMESTER: 4**

Course ID	Course Title	Course Outcome
CC8	Renaissance and Reformation	<ul> <li>After the completion of this course the students will be able to:</li> <li>Outline significant transitions that took place in Europe and manifest an important break from earlier economic, social and political conditions.</li> <li>Assess the developments in social, cultural and religious trends and their connections with major economic transitions.</li> <li>Understand the developments in scientific revolution in Europe.</li> <li>Familiar with the historiography of French Revolution.</li> <li>Mark out short-term and long-term effects of revolutionary regimes and Empire-building by France.</li> <li>Explicate characteristics of revolutionary actions and politics of endangered monarchical regimes.</li> <li>Demarcate different patterns of industrialization in Europe and assess the social impact of capitalist industrialization.</li> <li>Study patterns of resistance to industrial capital and the rising political declarations by new social classes.</li> </ul>
СС9	The French Revolution & Napoleon Bonaparte	
CC10	19 <sup>th</sup> Century Revolution in Europe	
SEC-2	The Making of Indian Foreign Policy 'or' Colonial Science in India: Institutions and Practices	In the SEC 2 course students will be familiar with the historical factors in India's foreign policy priorities and the changing relations with the foreign states. And also students can understand the impact western science in colonial India and have a clear realization of indigenous technology and medicines.
GE4	Gender and Education in India 'or' History of Indian Journalism	In GE 4 course students will be acquainted with the stages of development in education and with the gender perspectives through the ages in India. And they will be capable to get the job of journalism as these GE course provided history of print media, print and nationalism and experiences of writings and reporting.

#### **Programme: B.A. Honours in History**

# Course Outcomes (Continued) <u>SEMESTER: 5</u>

Course ID	Course Title	Course Outcome
CC11	Select Themes in the Colonial Impact on Indian Economy and Society	<ul> <li>After the completion of this course the students will be able to:</li> <li>Explain the establishment of Company rule and important features of the early colonial regime.</li> <li>Familiar with the colonial trade and deindustrialization.</li> <li>Understand the colonial ethnology, sanskritization and social</li> </ul>
CC12	Peasant and Tribal uprising in colonial India in the 19 <sup>th</sup> century	<ul> <li>reforms.</li> <li>Students will aware about the difference between tradition and modernity.</li> <li>Realize the elementary aspects of peasant uprising in colonial India.</li> <li>Become acquainted with the different tribal movements.</li> </ul>
DSE1	Europe in the Ancient Regime 'or' Modern Transformation of China (1839- 1949)	In 5 <sup>th</sup> and 6 <sup>th</sup> SEM, they have <b>Discipline Specific Elective</b> course. It helps pass out students to get job in the specific fields of academic and non-academic sectors.
DSE2	Modern Transformation of Japan 'or' Women and Social change in Nineteenth Century	In 5 <sup>th</sup> semester they study the ancient regime of Europe which helps them to understand the myth of absolutism and change and continuity in early modern European monarchy. Also they are capable of Explain China's engagement with the challenges posed by imperialism, and the routes of transition from feudalism to a bourgeois or capitalist modernity. Analyze noteworthy historiographical swings in Chinese history.

#### **Programme: B.A. Honours in History**

# Course Outcomes (Continued) <u>SEMESTER: 6</u>

Course ID	Course Title	Course Outcome
CC13	International Relations after the Second World War	<ul> <li>After the completion of this course the students will be able to:</li> <li>Draw varieties of nationalisms and the procedures by which new nation-states were carved out.</li> <li>Premeditated on the implication of imperialism and the manifestations of imperialist rivalry and development in the 19th and early 20th century.</li> </ul>
CC14	Modern Nationalism in India	<ul> <li>Explicate the various forms of anti-colonial struggles in colonial India.</li> <li>Analyze the composite developments leading to communal violence and Partition.</li> <li>Talk about the negotiations for independence, and need for socio-economic restructuring soon after Independence.</li> </ul>
DSE3	The Russian Revolution 'or' War and Diplomacy (1914-1945) Cinema	In 6th semester (DSE 3) they Summarize the steps in the consolidation of Bolshevik power and able to realize the history of nationalities and nationalism in Russia before and after 1917.
DSE4	Project Work 'or' Pre-colonial South East Asia	Carry out an independent research project under supervision, in accordance with applicable norms for historical research.

### **Program Specific Outcomes**

Of

# The students graduating with the Degree B.A. Programme Course with History

#### (GENERAL COURSE)

Explicate worth mentioning developments within the historical contexts, covered in the syllabus. Identify and walk around the importance of historical changes that take place contained by a society or culture.

The learners of History General will take a wide impression of the chronological span ranging from the prehistoric to the modern period with a center of awareness on history of Europe and Asia. Students will be acquainted with social and economic systems, execution of public institutions and political and social culture.

# Programme: B.A. Programme with History (GENERAL COURSE)

#### **Course Outcomes**

#### SEMESTER I, II, III

SEM	Course ID	Course Title	Course Outcome
I	Core-1 (DSC-1A)	Ancient India	After the completion of this course the students will be able to:  > Understand the rise of civilization in India.  > They will be able to understand the trajectory of prehistory in India's past and transition to proto-history from prehistory along with their characteristic features.  > They will also be able to understand the significance of regions in history and the issues related to them.
II	Core 3 (DSC-1B)	Medieval India	After the completion of this course the students will be able to:  > Understand and be well-known with the causes and consequences of early Turkish invasion.  > Capable to gravely assess the emergence of regional powers in India throughout the period of study.  > Discuss the chief currents of expansion in the cultural sphere that is Bhakti Movement, Sufism.
	Core 5 (DSC-1C)	Selected themes in the Colonial impact on Indian Economy and Society	<ul> <li>After the completion of this course the students will be able to:</li> <li>Outline key developments of the 18th century in the Indian subcontinent.</li> <li>Explain the establishment of Company rule and important features of the early colonial regime.</li> <li>Explain the peculiarities of evolving colonial institutions and their impact.</li> <li>Discuss the social churning on questions of tradition, reform, etc. during first century of British colonial rule.</li> </ul>
III	SEC 1	The Making of Indian Foreign Policy 'or' Archaeology and Museum Making in Colonial India	In the SEC 1 courses students will be familiar with the historical factors in India's foreign policy priorities and the changing relations with the foreign states.  And students will able to understand the process of development of archaeological knowledge and explorations. The study about museum is essential taking into consideration this is a skill based course; the beginners would get to know the actual working of these places of cultural importance. Students can enter in work places of Archaeological institutions.

#### **Programme: B.A. Programme with History**

#### (GENERAL COURSE)

# Course Outcomes (Continued) <u>SEMESTER-IV</u>

Course ID	Course Title	Course Outcome
Core 7 (DSC-1C)	Modern Nationalism in India	<ul> <li>After the completion of this course the students will be able to:</li> <li>Identify how different regional, religious and linguistic identities developed in the late 19th and early 20th centuries.</li> <li>Outline the social and economic facets of colonial India and their influence on different trends of politics.</li> <li>Explain the various forms of anti-colonial struggles in colonial India.</li> <li>Analyse the complex developments leading to communal violence and Partition.</li> <li>Discuss the negotiations for independence, the key debates on the Constitution and need for socio-economic restructuring soon after Independence.</li> </ul>
SEC 2	Literature and History: Bengal  'or'  Understanding Heritage	In the SEC 2 course: These course guided students how to differentiate the history and literature writings and also teach them to read the historical literature to better understand the society and politics of past. That will help them to work in the field of research oriented jobs.  The course will help students to know the complex character of heritage. This course will make them aware of numerous arenas where heritage generates avenue for revenue generation. Site visit to heritage site will make them appreciate the cultural diversity. Site visit will also acquaint them with the popular appreciation and appropriation of heritage. And students will be acquainted with the meaning of antiquity and archaeological site. They can analyze the challenges facing Tangible and Intangible Heritage.

# Department of History (UG &PG Studies) Programme: B.A. Programme with History

## (GENERAL COURSE)

Course Outcomes (Continued)

<u>SEMESTER: V</u>

Course ID	Course Title	Course Outcome
DSE 1A	Renaissance and Reformation 'or' Europe in the Ancient Regime 'or' Environmental issues in India	<ul> <li>After the completion of this course the students will be able to:</li> <li>Outline significant transitions that took place in Europe and manifest an important break from earlier economic, social and political conditions.</li> <li>Assess the developments in social, cultural and religious trends and their connections with major economic transitions.</li> <li>Understand the developments in scientific revolution in Europe.</li> <li>Assess the political system in 18<sup>th</sup> century Europe.</li> <li>Understand the historical significance of overseas empire and the trading companies</li> <li>Realize the importance of environment and will be familiar with the geography, ecology and cultures in pre-colonial India.</li> <li>Understand the development in the environment and be familiar with the environmental issues and movements in colonial and post colonial India.</li> </ul>
SEC 3	Colonial Science in India: Institution and Practices	SEC 3 course plans to stress on the increase of western science in colonial India with multi-dimensional features and endeavors. It facilitates the students to know the nature of science-related explorations, science studies and research activities by government and public initiatives, during this period. It helps students to learn the opening of western medicine in colonial India and as well about the indigenous medicine. This course needs to make the students understand the nature and development of science, technology and medicine in colonial India, which encourages them to more study and research on these new expanding fields of history.
GE 1	Science and Empire	GE 1 course plans to stress on the increase of western science in colonial India with multi-dimensional features and endeavors. It facilitates the students to know the nature of science-related explorations, science studies and research activities by government and public initiatives, during this period. It helps students to learn the opening of western medicine in colonial India and as well about the indigenous medicine. This course needs to make the students understand the nature and development of science, technology and medicine in colonial India, which encourages them to more study and research on these new expanding fields of history.

# Programme: B.A. Programme with History (GENERAL COURSE)

Course Outcomes (Continued)
<u>SEMESTER: VI</u>

Course ID	Course Title	Course Outcome
	Modern Europe 'or'	After the completion of this course the students will be able to:
		<ul> <li>Identify what is meant by the French Revolution.</li> <li>Trace short-term and long-term repercussions of revolutionary regimes and Empire-building by France.</li> </ul>
DSE 1B	Post World War- II Politics	<ul> <li>Understand the restoration and reactions in Europe and movements of National aspirations.</li> </ul>
	'or'	<ul><li>Realize the Cold War and its ideology.</li><li>Will be familiar with the history of collapse Soviet Bloc.</li></ul>
		<ul> <li>Students will be familiar with the method of interpreting history.</li> </ul>
	Research Methodology in History	➤ Understand the Hypothesis, augmentation, objectivity etc. that will help them to be a good researcher in future.
		Art Appreciation An introduction to Indian art:
	Art Appreciation An introduction to Indian art	Make out the historical circumstance, socio-economic processes that went in the configuration of art and architectural forms, through specially selected examples. Portray the stylistic features of a variety of case studies from different fields of art.
ana 4		<b>Understanding Popular Culture</b> :
SEC 4	'or' Understanding Popular Culture	The course will enable students to grasp significant aspects of popular culture in the Indian context. They would be able to understand differences in cultural types as well as would be able to assess the impact of types of cultural expressions on society. By identifying themes and characters belonging to the various cultural forms and by visiting an exhibition/fair/festival, projects may be made which is an essential part of this course. This will help them in understanding the various nuances of popular culture.
GE 2	Some Perspective on Women's Rights in India	In this course GE 2, pupils will able to understand the various stages of development in India to promote women's rights by government and other non-government institution.

# **Program Specific Outcomes**Of

#### The Programme M.A. in History

The PG department (KC) conducts a variety of different type of courses with efforts on social and economic history, environmental history, history of science, history of gender, regional history and general political, diplomatic and military history. This pedagogy endows students with understanding and capability to teach these subjects in schools, colleges and universities, to handle responsibilities as administrators and to work in various public sectors. The courses also instruct citizenship education, a general talent which enables individuals to comprehend social and economic systems, execution of public institutions and political and social culture.

**Programme: M.A. in History** 

Course Outcomes
<u>SEMESTER: I</u>

Course ID	Course Title	Course Outcome
Course No: 101	State Formation in Ancient India	The course intends to impart knowledge to students about how states are formed and how they develop into large territorial entities like kingdoms or empires (mahajanapadas). And are elucidated in the perspective of the ancient period of Indian history. The course focuses on the study of states in terms of their origin – i.e. whether there could be alternatives to state like lineage, and, whether states originate sui generis or whether they originate from the remnants of earlier formations. Students are expected to have knowledge of state origins, statelessness and sovereignty.
Course No: 102	History and Historiography	This course enables students to understand the nature of history and differences of thought and ideology amid historian regarding a specific fact. It helps to develop the skills needed to become thriving professional historians. This syllabus make acquainted students with recent historiographic trends and practices. It enlightens students to the various ways in which historians understand the development of the academic discipline of history and enrich them with the forms of writings that have been most prevalent in recent past.
Course No: 103	History of Europe: From Revolution to World War (1789-1914)	Students will able to realize such themes as state- and nation-building, social turmoils and transformation, and the emergence of liberalism, conservatism, and socialism as the predominant political ideologies. European alliances and alignments will be understandable for students. Through taking this course, students will have an understanding of the basic chronology and themes of nineteenth-century European history. They will demonstrate the ability to understand and analyze difficult primary sources within their historical context. It will assist students to prepare for the UPSC and other Competitive Examinations.
Course No: 104	Socio Religious Reform Movements in Colonial India	This Course studies the background, causes, and emergence of different types of social and religious reform movements in India from the early nineteenth to the mid twentieth centuries. Students will able to understand the various political thoughts and activities during the first half of 19 <sup>th</sup> century. It discusses the existence of different religions, issues related to caste, and class in colonial India. On one hand, it studies the revivalist and reformist outlooks among the Indian reformers, while on the other, it looks at the colonial intervention in issues of reforms. An important aspect of this Course is that it traces the path of some of the significant social and religious reforms of the time from its inception to the Act.

**Programme: M.A. in History** 

Course Outcomes (Continued)
<u>SEMESTER: I</u> (Continued)

Course ID	Course Title	Course Outcome
Course No: 105	Optional among:  (A)  Social History of Colonial India	Social History of Colonial India:  Course Outcome: This course deals with the relatively new and intellectually demanding sub- discipline of Social History. It discusses in detail certain crucial aspects of Indian society during British rule, viz., caste, tribe, labor, family, and urbanization and urbanism. A certain degree of continuity, despite changes, characterized Indian society up to the 18th century; thereafter, western colonial rule ushered in new era with revenue extraction measures, domination in trade, technological innovations, and the rule of law – all which could not but impact upon, and bring about changes in, Indian society as well. A reading of the course ought to enable students to know the basic features of Indian society, the impact of colonial rule upon them, and how it continues to impinge upon contemporary life in India.
	(B)  India and the  World: The  making of a  Foreign Policy	India and the World: The making of a Foreign Policy:  Course Outcome: The purpose of this course is to generate knowledge among the students about continuity and changes in India's foreign policy since independence. This course studies India's foreign policy within the context of history and tries to understand and analyze its behavior. Through taking this course, students will gain an understanding of the history and India's policy with regard to our relations with important world powers as well as regional powers.
	(C) Agrarian History of Colonial India	Agrarian History of Colonial India:  Course Outcome: This course addressed the need to put the agrarian question of colonial India in a historical perspective, to understand the colonial impingement on the agrarian social structure and its effect on the changes in ownership and control of land, the insecurities of the peasants and how their decisions to grow crops were induced by debt servicing.

**Programme: M.A. in History** 

# Course Outcomes (Continued) <u>SEMESTER: II</u>

Course ID	Course Title	Course Outcome
Course No: 201	State and Economy in Colonial India	This course deals with the structure and policies of British colonial rule in India; it especially focuses upon colonial polity and economy which replaced traditional Indian polity and economy in a relatively short span of time. The British tended to overlook society on the subcontinent, but they certainly meant to bring about crucial changes in the political and economic spheres to extract the maximum advantage of their rule in India. A reading of the course ought to enable students to gain a comprehensive knowledge of British colonial rule and economy; this is important because post-independence, India decided to continue with the structure of polity and economy introduced by the British, though the new policies taken were divested of the harmful intent of colonialism.
Course No: 202	Anti-Colonial Resistance Decolonization and after	As a historical event anti-colonial movements in India is the struggle against the British imperial rule which led to the independence in 1947. The course discusses in detail the problems, predicaments and possibilities envisaged in this struggle. De colonisation in India stimulated further movements in other countries of Asia and also in the princely states of India The approach of teaching this course is politico economic with emphasis on post partition refugee problems, planning and development.
Course No: 203	History of Modern World: Select Themes	This course introduces key themes in the history of modern world and also critically analyzes the nature of the changing political relations among the different nations since the pre World War I period. The emphasis is laid on the study of rise of totalitarian ideologies such as Nazism, Fascism and Militarism and also the transformation of West Asia and Southeast Asia. Through this course, students will examine the political, diplomatic, intellectual, social and economic themes within world history.
Course No: 204: (CBCS)	Contemporary World	This course revolves around major subject areas like geo-politics, strategic studies, peace and conflict studies which helps the students to have a diverse range of knowledge on popular and critical international events which will make them updated too. It tries to analyze in critical way about the role of UNO in maintaining peace and harmony across the world. This will be helpful to pursue future courses on international law. The portion of black history in USA is to provide the students a survey of the time and incidents from the Civil War to Civil rights movement. It covers abolition of slavery and the process of internalization of black citizens of USA. The Harlem Renaissance and the Civil rights movement, Black feminist movements are also taught here. This course also intends to familiarize the students with the concept, development and evolution of the Third World. It discusses India's (approach) engagement with the outside world and tries to analyse the nature of the foreign policy within the context of history. This course will help the students prepare for UPSC and any other Competitive Examinations.

**Programme: M.A. in History** 

Course Outcomes (Continued)
<u>SEMESTER: II</u> (Continued)

Course ID	Course Title	Course Outcome
	Optional among:  (A)  Military History of India  (B)  Contemporary World – Select Themes	Military History of India:  Course Outcome: This course covers all major aspects of the military history of India, including the organizational and operational dimensions. Beginning with ancient time's warfare, it examines the role of the military from ancient times to the present day. This course revolves around major subject areas like Geo-Politics, Strategic Studies, Peace and Conflict Studies which helps the students to have a diverse range of knowledge which will make them updated too for various defense related jobs. This course will help the students to opt Indian military Service through UPSC.  Contemporary World – Select Themes:  Course Outcome: This course is designed to introduce students with an understanding of contemporary world scenario. It provides focus on multi-dimensional approach that integrates political, social, economic, sociological, technological and cultural perspectives and thus promotes an increasing awareness of the interconnectedness of the world. The course provides various phenomena and analysis of development, sustainability as well as tensions in contemporary world. It enables students to identify, define and consider world issues academically.  History of Medicine: A Short introduction:
	(C) History of Medicine: A Short introduction	Course Outcome: This Course intends to provide an overview on history of medicine as a discipline by stating how society, economics, politics, history, law, medicine, and culture shape the definition of history of medicine. It defines the relevance of history of medicine as a discipline, and, the methods of researching in history of medicine. It then discusses the three medical systems prevalent in India: Ayurveda, Unani and Siddha, along with the origin of the western medical system. It discusses the historical, social, and cultural perspectives of understanding a disease. The Course ends with a discussion on therapeutics particularly on the usage and application of drugs as a treatment and the emergence of the history of pharmacy as a separate area of research within the history of medicine.
		South West Bengal (17th and 18th Centuries):
	(D) South West Bengal (17 <sup>th</sup> and 18 <sup>th</sup> Centuries)	Course Outcome: The course intends to prepare students for studying the region – home to many of them – where the University is located. An in-depth study is deemed necessary for students who wish to devote themselves to research in future. It is also necessary for those who wish to orient themselves with local knowledge and culture for future application in creative work as well as professional life.

**Programme: M.A. in History** 

**Course Outcomes (Continued)** 

#### **SEMESTER: III**

Course ID	Course Title	Course Outcome
Course No: 301	Industrial Revolution: The Nature of the Industrial Revolution & the English Experience (I)	This course details the nature of the First Industrial Revolution. It provides a strong knowledge of the historical debates relating to the revolution and evaluates the changes in the fields of socioeconomic life, technology and government institutions. A reading of the Industrial Revolution is essential for students of world history, as well as for those seeking to know more about the global implications of the socio-economic events of modern times.
Course No: 302	State and Economy in Early Modern India	One of the objectives is to demonstrate how state and economy interacts and whether centralization of power is a necessary part of development of state. This is explained through a thorough study of fours aspects of the economy and society - state as a fiscal machine, relation between the state and the social components of rural economy, trade and the economy of early modern period, and, institutions of the economy. Two aspects of administration are also studied - organization of central and provincial administration, and, the organization of the military. Students are expected to learn about pre-history of economic and social institutions without being deterministic.
Course No: 303	History of Constitutional Development in Modern India	The course will teach the evolution of the Indian constitution through the enactment of various acts. This course bears the tune 'Unity in Diversity', as promulgated by Indian Constitution. Through taking this course, the Students will understand the philosophy of Indian constitutions. They will also have the conviction of the various Government of Indian acts, their provision and reforms. This course will be helpful to pursue future Courses on Law. This course will prepare the students for UPSC and other Competitive Examinations too.
Course No: 304 (CBCS)	Contemporary India: Historical Underpinnings	The purpose of this Course is to give an overview on some of the significant issues in history to students who belong to various disciplines from arts and humanities, other than history. It does not provide an analytical framework of the subject Instead it intends to provide an overview of the subject. The purpose of this Course is to create an interest in history among students by introducing them to new researches and debates in history and history writings. It will help students from other discipline to understand what are the different aspects and issues in history which are dealt with in higher studies and researches.

#### **Department of History (UG &PG Studies)**

**Programme: M.A. in History** 

Course Outcomes (Continued)
<u>SEMESTER: III</u> (Continued)

Course ID	Course Title	Course Outcome
	Optional among:	South West Bengal – 19th and 20th Centuries:
	(A)  South West Bengal – 19 <sup>th</sup> and 20 <sup>th</sup> Centuries	Course Outcome: The course provides a basic understanding of regional history of South-West Bengal during the colonial period, especially of 19th and 20th centuries. Crucial aspects of this region with detail analysis are dealt with. It aims at developing comprehensive knowledge of regional political, economic, social, cultural and environmental aspects with varied local dimensions. Emphasis is laid on promoting critical approach among the students to the study of South-West Bengal, which also enables them to proceed towards further research works on this particular region.
		Popular Culture in Bengal – 19th and 20th Centuries:
Course No: 305	(B)  Popular Culture in Bengal – 19 <sup>th</sup> and 20 <sup>th</sup> Centuries	Course Outcome: This course deals with the intellectually stimulating concept of popular culture that pervades the syllabuses of the social sciences and the humanities nowadays. The close relation of society and culture goes without saying; however, industrialization, urbanization, post-World War II Americanism, mass consumerism and so on have irrevocably changed the traditional cultural landscape and ushered in a distinct 'popular' culture. And, while this process began first in the West, colonial rule, globalization, and a greater impact of such forces as the market and the media have made possible the proliferation of a popular culture in India too. A reading of the course ought to enable students to identify 'popular' aspects contemporary Bengali culture, the situation and the forces that brought them about, and their impact upon society at large.
	(C)	Technology in Early Modern India:
	Technology in Early Modern India	Course Outcome: This course covers an important aspect of history covering the whole range of technology in early modern India, from those used by ordinary men and women to the instruments of astronomy, as also the equipage and weaponry of war. Larger questions such as constraints of technological development and the role of social and economic developments are also addressed.
	(D)	History of Medicine in India: Colonial Times to the Present:
	History of Medicine in India: Colonial Times to the Present	Course Outcome: This Course provides an intense study of history of medicine in India from the establishment of East India Company's rule to the present times. In doing so, it touches upon aspects including Company's medical experiences, establishment of western medical system, medical reforms, and the emergence of public health in India. It focuses at length on the history of psychiatry and the emergence of psychiatric drugs in India both in Ayurveda and in western medicine. In the post-colonial period it studies the situation of the primary health care and the debate on 'health for all'.

#### **Department of History (UG &PG Studies)**

**Programme: M.A. in History** 

### Course Outcomes (Continued) <u>SEMESTER: IV</u>

Course ID	Course Title	Course Outcome
Course No: 401	Social History of Science, Technology and Medicine in India: Colonial period	This course intends to emphasize on the spread of western science in colonial India with multi-dimensional aspects and endeavors. It enables the students to understand the nature of science-related explorations, science studies and research activities by government and non-government initiatives, which were going on in varied forms during this period. It ought to enable students to study the introduction of western medicine in colonial India and also about the indigenous system of medicine, which prevailed here since long before colonial period. New technological aspects and applications in colonial India are also dealt with special attention. This course wants to make the students realize the nature and evolution of science, technology and medicine in colonial India, which inspires them to further study and research on these new emerging fields of history.
Course No: 402	Environmental History of Modern India	Teaching Environmental history of India is to introduce to the students the rich research literature on varying works on forest and forest policies, wildlife conservation and conflicts, tribal right and sustenance, the binary discourse of displacement and protests on one hand and development on the other, as also the debates on ecology and equity.
Course No: 403	Industrial Revolution (II) The Continental Experience	This course deals with the momentous phenomenon called the Industrial Revolution; while it occurred in the West, it could not but send out shockwaves to, and transform beyond recognition, all corners of the globe. India experienced a new phase with the coming of European trading companies and ensuing resultant colonial rule, both which were largely the outcome of the Industrial Revolution in Europe. Industrialization has proved to be a lasting phenomenon, something that underpins contemporary politics, economy, and society in India and elsewhere. A reading of the course ought to enable students to know about this impactful phenomenon, its many aspects, how the 'classic' case of England was both replicated and replaced in the European continent, and the lessons that this holds out for us.
Course No: 404 (CBCS)	Women and Society in Indian History	This Course briefly discusses on how women and issues related to women has been addressed in pre-colonial, colonial, and in post-colonial India. It studies the different theories on women and gender in history. It questions the relevance of studying women as a separate 'category'.

#### **Department of History (UG &PG Studies)**

Programme: M.A. in History

Course Outcomes (Continued)
<u>SEMESTER: IV</u> (Continued)

Course ID	Course Title	Course Outcome	
	Optional among:	Ideas and Thoughts in Modern India: Select Themes & Personalities:	
	(A)	Course Outcome: The course studies various intellectual personalities - as well as their contributions to make modern India. Through taking this course, students will understand the social, political, and the spiritual ideas and thoughts in the modern Indian imaginary.	
	Ideas and	Gandhian Thought:	
Course No: 405	Thoughts in Modern India: Select Themes & Personalities  (B) Gandhian Thought	Course Outcome: This course is to promote, organize, sponsor, and undertake the study of the life and thought of Mahatma Gandhi. This Course will undertake the publication of journals, magazines, tracts, monographs, books, reports of seminars and other study materials relevant to Gandhian Thought. This course will organize and assist in the maintenance of libraries and reading rooms to promote popular study of Gandhian thought. This Course will promote and carry out research in various aspects of Gandhi's life and carry out such activities and studies on a scientific basis to extend projects for the application of science and technology in rural development.	
		Historical Methods:	
		Course Outcome: The course aims to disseminate knowledge about different patterns of ideas involved in the writing of history or the historiography, and, the methods involved in the practice of marshalling facts and selection of those. Taking positivism and empiricism as the foundation of modern historical methodology the course proceeds to introduce to students strands of historiography which emphasized interpretation of facts and explanations based on them rather than	
	(C)	interpretation of facts and explanations based on them rather than simple presentation of facts by way of narration and description. In this	
	Historical Methods	context study of Marxist history and Annales School is made showing the differences and similarities in approaches. The course aims at providing the students knowledge about scientific basis of history.	

Courses are structured by the Vidyasagar University with the intention of giving essential information concerning different aspects of the past to students. Instruct them on how historians research, structure an argument and debate details that have importance to how we comprehend the past and the present. The outcome assists students to understand the interconnection between present and the past, how understanding regarding the past provides them with the skills to realize the present. And our courses, class room teaching and assignments provide students the capability to sense and reach their own conclusions.

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF PHILOSOPHY HONOURS PROGRAMME

#### **Program Specific Outcomes**

## The student graduating with the Degree B.A. (Honours) in Philosophy will have the following achievements

The curriculum for B. A (Hons) Philosophy is prepared to keep in mind the needs, expectations and aspirations of students in philosophy as well as the modernizing trends and methodological perspectives of philosophy as a subject. The course learning outcomes and the programme learning outcomes specify the knowledge, understanding, skills, attitudes, values. B.A. Philosophy Honours students will be able to articulate creatively and independently, exploring possibilities beyond those deep-rooted in prevailing opinion and practice.

# Department of Philosophy Course Outcomes of CC, SEC & DSEC Courses of B.A. Honours in Philosophy Programme

#### **SEMESTER-I**

Course ID	Course Title	Course Learning Outcome
CC-1	C1T Indian Philosophy – I	Philosophy, especially Indian Philosophy is a quest for knowledge or search for truth. It is justifying truth through rational and speculative methods. Indian philosophy has a rich history and occupies a unique place in the realm of philosophy of the world. A traditional classification divides orthodox (āstika) and heterodox (nāstika) schools of philosophy, depending on one of three alternate criteria: whether it believes the Vedas as a valid source of knowledge. There are six major schools in (astika) Nyaya, Vaisheshika, Samkhya, Yoga, Mīmāṃsā and Vedanta, and three major heterodox (nastika) schools—Jain, Buddhist, Charvaka. Concept of dharma, karma, samsara, reincarnation, dukkha, renunciation, meditation, with almost all of them focussing on the ultimate goal of liberation of the individual through a diverse range of spiritual practices (moksha, nirvana). They differ in their assumptions about the nature of existence as well as the specifics of the path to the ultimate liberation, resulting in numerous schools that disagreed with each other. Their ancient doctrines span the diverse range of philosophies found in other ancient cultures. This study is a complete method for the way of living.
CC2	C2T: History of Western Philosophy – I	Throughout its long and varied history in the West, philosophy has meant many different things. Some of these have been a search for wisdom (the meaning closest to the Latin <i>Philosophia</i> , itself derived from the Greek <i>philosophy</i> , "lover of wisdom"); an attempt to understand the universe as a whole; an examination of humankind's moral responsibilities and social obligations; an effort to fathom the divine intentions and the place of human beings concerning them; an effort to ground the enterprise of natural science; a rigorous examination of the origin, extent, and validity of human ideas; an exploration of the place of will or consciousness in the universe; an examination of the values of truth, goodness, and beauty; and an effort to codify the rules of human thought to promote rationality and the extension of clear thinking. Even these do not exhaust the meanings that have been attached to the philosophical enterprise, but they give some idea of its extreme complexity and many-sidedness.  This course introduces the students to the Western philosophical tradition, through the study of rationalists like Descartes, Spinoza and Leibnitz.

# Department of Philosophy Course Outcomes (Continued) SEMESTER-I (Continued)

Course Title	Course Learning Outcome
SEC-1 Computer Application	This introductory course provides students with the opportunity to practice using computer operating systems. They use graphic design applications, spreadsheets and the Internet. The course often includes information about the social, political and economic effects of the Internet and technology on society. Students examine modern examples of how technology is used for research and communication. A course such as this can be taken as a beginning part of many programs to ensure students can use computers. This is another practical, introductory computer applications class that trains individuals to use a wide range of computer application programs and is likely to be an early course taken
OR	in many programs. Students practice using command keys and formatting material for ease of reading and learn to use Microsoft Word, Excel and PowerPoint to create presentations, spreadsheets and text documents. Nowadays which is mandatory for every student.  The course will consider recent philosophical theory regarding human rights and their role in international legal practice. We will try to sort out what human rights claims are about, how to properly theorize about them, whether (and how) they are distinct from other moral rights claims, what it means to protect (and conversely, violate) human rights, to whom
SEC-1 Philosophy of Human Rights	demands grounded in human rights can be properly addressed, and what kinds of demands they can, in fact, sustain. There are a couple of reasons for considering these questions in the context of international law. First, several theorists have recently suggested that international practice is the proper location for understanding the function and content of, specifically, human rights. Second, in any case, it is becoming increasingly plausible that basic normative questions in international law can be illuminatingly addressed by consideration of human rights.
	SEC-1 Computer Application  OR  SEC-1 Philosophy of Human

**SEM-I Table Ends** 

# Department of Philosophy Course Outcomes (Continued) SEMESTER-II

Course ID	Course Title	Course Learning Outcome
CC3	Indian Philosophy - II	This section is the continuation of the CC-1. Here students learn about Indian logic, epistemology, metaphysics and ethics. The discourse is diverse, moving from a discussion on 'existence' from the Indian philosophical perspective to highlighting the debate on the idea of Ultimate Reality by some central schools of thought in Indian philosophy. In a nutshell, the paper provides a consolidated picture of Indian philosophical thought and impresses upon the young mind the significance of the Indian outlook to understand life.
CC4	History of Western Philosophy- II	This course introduces the students to the Western philosophical tradition, empiricists like Locke, Berkeley and Hume, and the modern critical philosopher like Immanuel Kant. Students are introduced with questions that have been significant to philosophy from its beginnings: questions about the nature of the mind or soul, the existence of God, the foundations of knowledge, ethics and the good life. In the process of evaluating the arguments of these philosophers, students will develop their own philosophical and analytical skills.
AEC C2	ENVS	Where they learn about the environment and the different movement about the protection of the environment. Eventually, this programme makes them an environmentally friendly citizen with the necessary awareness. As the programme suggests, they have to prepare a project report based on their survey on some environmental crisis.

# Department of Philosophy Course Outcomes (Continued) SEMESTER-III

Cor	SEIVIESTER-III		
Course ID	Course Title	Course Learning Outcome	
CC5	Philosophy of Mind	Students are acquainted with a very unique attempt to consider Psychology as a science(as it accepted experimental method), though unique science with its subjective Outlook & accepting introspection as an important method. Its wide range & its application in almost all fields of human beings, draw our attention & higher studies open various job facilities both academically & clinically. Philosophy of mind is one of the most exciting areas of philosophy. It is concerned with questions about the nature of mind and the relation between our minds and the physical world. This course provides an introduction to the philosophy of mind by introducing participants to the mind-body problem, one of the most intractable problems in philosophy. Students through their reading of various classical and contemporary works on the mind-body problem encouraged to think for themselves about the problems addressed. Through this course, students are encouraged to develop philosophical thinking and the ability to describe the main arguments for and against the main positions in the mind-body debate. Primarily the course is expected to enhance the ability to explicate their view on the mind-body problem.  This course introduces the students to Methods of Psychology, Sensation-Perception, Learning, Consciousness, Memory. This topic is	
CC6	Social and Political Philosophy	This course examines the norms or principles that establish and justify societies and determine the rights and responsibilities of a society concerning its members, of the members concerning each other and to society as a whole, and of society about other societies. The course considers the application of these principles to such issues as justice, human rights, political and social institutions, social changes and world community. Students also know the present and past scenario of political changes and the important notion of society.	
CC7	Philosophy of Religion	Philosophy of religion aims to render various religious beliefs intellectually acceptable, and the philosophical examination of the central theme involved in religious traditions of historical events and general features of the cosmos. It also deals with the argument about God's existence, the significance of religious pluralism, the nature of God and evil to God etc.	

# **Department of Philosophy Course Outcomes (Continued)**

#### **SEMESTER-IV**

Course ID	Course Title	Course Learning Outcome
CC8	CC-8 and CC9: Western Logic(I+II)	Logic contains two types of arguments deductive and inductive. Inductive reasoning, as opposed to deductive one, is a method of reasoning in which the premises supply some evidence for the truth of the conclusion. Different kinds of induction such as perfect induction, imperfect induction, scientific induction etc. are taught in this paper. Different types of postulates and hypothesis along with Mill's experimental methods are also taught. Western Philosophy is based on
CC9		conscious thought, where unconscious thought is central to spiritual awakening and development. You can learn conscious-thought techniques of logic, which are very useful for correcting conscious-thought processes, and are therefore essential in scientific thought and running a business, but these have little influence on subconscious processes. The latter, processes of the brain, being far more extensive and unfettered by logic, create far more original and dynamic thinking. The skill is in being able to harness those subconscious processes at will.
CC10	Epistemology and Metaphysics (Western)	Metaphysics is the branch of philosophy that examines the fundamental nature of reality, including the relationship between mind and matter, between substance and attribute, and between potentiality and actuality. The word "metaphysics" comes from two Greek words that, together, literally mean "after or behind or among [the study of] the natural".
		Descriptive metaphysics is content to describe the actual structure of our thought about the world; reversionary metaphysics is concerned to produce a better structure. Descriptive metaphysics aims to describe the most general features of our conceptual scheme, that is, to describe reality as it manifests itself to human understanding. Conceptual analysis is its main method. Reversionary metaphysics, on the other hand, attempts to revise our ordinary way of thinking and our ordinary conceptual scheme to provide an intellectually and morally preferred picture of the world. The reversionary metaphysicians generally like to establish a well-organized system beyond the world of experience. The issue of appearance and reality occupies an important place in the history of metaphysics.
		SEM IV Table Continued to Next Dag

# Department of Philosophy Course Outcomes (Continued) SEMESTER-IV

Course ID	Course Title	Course Learning Outcome
	Value Education	Value education is the process by which people give moral values to each other. According to Powney et al. It can be an activity that can take place in <i>any</i> human organisation during which people are assisted by others, who may be older, in a condition experienced to make explicit our ethics to assess the effectiveness of these values and associated behaviour for their own and others' long term well-being and to reflect on and acquire other values and behaviour which they recognise as being more effective for long term well-being of self and others. There is a difference between literacy and education
SEC2		There has been very little reliable research on the results of values education classes, but there are some encouraging preliminary results.
		One definition refers to it as the process that gives young people an initiation into values, giving knowledge of the rules needed to function in this mode of relating to other people and to seek the development in the student a grasp of certain underlying principles, together with the ability to apply these rules intelligently, and to have the settled disposition to do so Some researchers use the concept values education as an umbrella of concepts that includes moral education and citizenship education
SEC2	Man and Environment	Study mainly discusses the relation between Man and Environment. Where we know about bio-ethics. The bio-ethics paper is very much relevant in a contemporary time when people are shedding away from their responsibility towards nature. The reason could be many including the ignorance of their surroundings. This paper throws light on the right and responsibility of human with human, human with nature and human with others. The objective of this paper is to provide a holistic (historical, philosophical, analytical and critical) notion of feminism philosophy. There are many sorts of perplexity with the term feminism so this paper aims to provide a clear and distinct understanding of this term and associated ideas. The paper covers topics such as- The creation of Patriarchy, Feminism: A movement to end the sexiest oppression, Is there a feminist method. Also, we find the relation between feminism and ecology.

SEM-IV Table Ends

# Department of Philosophy Course Outcomes (Continued) SEMESTER-V

Course ID	Course Title	Course Learning Outcome
CC11	Nyaya Logic and Epistemology –I	The objective of this course is to engage the student in a participative framework to critically and creatively look at the dialogical and pluralistic epistemological traditions within the mosaic of what is called the Indian Philosophical Textual Depository. The primary focus will be on the three sources of knowledge and cognitive activity: perception, inference and verbal testimony. Tarkasamgraha is the book which covers every aspect of Indian Epistemology and Logic for students.
CC12	C12T: Ethics (Indian)	Ethics (nītīśāstra) is a branch of philosophy that deals with moral values. It studies human character and conduct in terms of good and bad, right and wrong. What are the qualities of good character? What type of human behaviour is evil or bad? How should one act in life? These are some of the fundamental questions of ethics. The moral code of the people is an indicator of their social and spiritual ways of life. The true essence of human life is to live amidst worldly joy and sorrows. Ethics is primarily concerned with the moral issues of the world. True religion lays stress on moral virtues. People are required to discharge their duties according to the moral code of ethics. True knowledge of ethics would be attained if one practices and imbibes these moral values. Ethics is of two kinds, individual and social. Individual ethics is indicative of the good qualities that are essential for individual well-being and happiness. Social ethics represents the values that are needed for social order and harmony. Human values are inculcated from the Vedic teachings to lead a peaceful integrated life. Indian Culture shows us pieces of evidence of the development of values in life by training and experience. The Bhagawad Gita is considered as the essence of the Vedas and Upanishads. Important values that are ever relevant and unchanging are found in the form of scriptural texts in the Indian culture, such as Vedas, Bhagavad Gita. We, human beings, face various conflicts at different phases of life, become stressed both physically &mentality. This paper shows a path to overcome these conflicts through Karma Yoga of Bhagavad Gita, which is very relevant & necessary for us today.

# Department of Philosophy Course Outcomes (Continued) SEMESTER-V (Continued)

Course ID	Course Title	Course Learning Outcome
DSE1	Philosophy of Language (Indian)	The Indian text section exposes students to the problems of understanding language, meaning, reference and other related concepts in Indian philosophy. Getting a comparative understanding of Indian and Western perspectives of these philosophical issues is one of the main objectives of this course. The course expounds the main problems and positions in the philosophy of language and explains the meaning of the philosophical concepts in different positions on language. The course also establishes the relationship between language users and the realities of the world and enables human thinking to analyse these realities.
	Ethics (Applied ethics)	Applied ethics is the practice of ethics that aims to guide the moral judgment governing the decisions we make in all areas of our lives. Issues of right and wrong are related to one's values. This paper helps the students to identify the correct approach to issues related to the value of human life, for example, euthanasia, suicide, foeticide etc. This course also discusses issues related to environmental ethics in terms of respect for animals and ecology and ethics of Care.
DSE2	OR  Philosophy of Language (Western)	Language is the vehicle of thought. Philosophy of Language is a systematic inquiry into the origin of language, the nature of meaning, the usage and cognition of language and the relationship between language and reality. As language is the centre of human life, human culture and human cognition, the course is a sincere attempt to understand the realities of the world through the systematic study of the various concepts involved in the philosophy of language. The course expounds the main problems and positions in the philosophy of language and explains the meaning of the philosophical concepts in different positions on language. The course also establishes the relationship between language users and the realities of the world and enables human thinking to analyze theses realities

SEM-V Table Ends

#### **Department of Philosophy**

# Course Outcomes (Continued) SEMESTER-VI

Course ID	Course Title	Course Learning Outcome
CC13	Nyaya Logic and Epistemology –II	The primary focus will be on the three sources of knowledge and cognitive activity: inference, comparison and verbal testimony.
CC14	Ethics (Western)	The objective is to introduce students to basic ethical theories which enhance their decision-making capabilities. The course is designed to help them achieve clarity and creative approach in a given situation. This course helps to understand and interpret socio-cultural aspects with a more rational basis. Study about values, it helps students to identify different kinds of moral values, and distinguish them from other sorts of values. Also, it enhances ethical knowledge, like code of ethics, through which students can raise ethical issues about euthanasia, animal cruelty etc.) Finally, it improves ethical judgments – that in turn enhances ethical will power.

#### **Department of Philosophy**

#### **Course Outcomes (Continued)**

#### **SEMESTER-VI** (Continued)

Course ID	Course Title	Course Learning Outcome
1 1	An Enquiry Concernin g Human Under- standing D. Hume	An Enquiry Concerning Human Understanding is a book by the Scottish empiricist philosopher David Hume. The argument of the Enquiry proceeds by a series of incremental steps, separated into chapters which logically succeed one another. After expounding his epistemology, Hume explains how to apply his principles to specific topics. Hume begins by distinguishing between impressions and ideas. Impressions are sensory impressions, emotions, and other vivid mental phenomena, while ideas are thoughts or beliefs or memories related to these impressions. We build up all our ideas from simple impressions using three laws of association: resemblance, contiguity, and cause and effect.  Next, Hume distinguishes between relations of ideas and matters of fact. Relations of ideas are, for the most part, mathematical truths, so denial of them would result in a contradiction. Matters of fact are the more common truths that we learn from experience. Denying a matter of fact is not contradictory. For the most part, we understand matters of fact according to cause and effect, where a direct impression will lead us to infer some unobserved cause. Our inferences regarding matters of fact are ultimately based on probability. If experience teaches us that two events are conjoined quite frequently, the mind will infer a strong causal link between them. Hume's interest in philosophy extended throughout his life, and he published numerous shorter works that tried to clarify or refine the ideas expressed in the Treatise. The Enquiry Concerning Human Understanding, first published in 1748, is a significant reworking of the first book of the Treatise. In it, he builds upon the empirical philosophy of Locke and Berkeley and attacks the metaphysical rationalism of Descartes and others.  Russell's chief innovation with The Problems of Philosophy was the concept of sense-data. Sense-data are the impressions that the appearance of reality offers our
	The Problems of Philosophy  Bertrand Russell	senses. We have a sensation of a piece of sense-data. Sense-data is an important concept distinguished from the physical world full of physical objects because it is the only part of the world with which we have direct acquaintance. The physical world is an external conception, in Russell's philosophy, which reaches us only through an interface with our senses. The primary concern of <i>The Problems of Philosophy</i> is the establishment of a practicable theory of knowledge. Russell's famous innovations for his theory are knowledge by acquaintance and knowledge by description. We know by an acquaintance when we are directly aware of our sense-data. Knowledge by description is based on our acquaintance and some knowledge of truths. Our acquaintance is the most direct access we have to things in reality. Description allows us, from a distance, to infer knowledge about the actual world. It is thus that direct and indirect realism is a dichotomy conspicuous in Russell's thought, though not made explicit. Russell's style of enquiry in this work appropriates Cartesian radical doubt as a tool to do analytic philosophy and conceive of new possibilities. Descartes refused to accept anything as true unless it struck him as clearly and distinctly true, in itself. Russell revives this method in his first chapter's account of the dubious nature of our so-called "knowledge." Throughout the work, he prompts us to doubt and reconsider our everyday conception of reality, knowledge, and truth.

# Department of Philosophy Course Outcomes (Continued) SEMESTER-VI (Continued)

Course ID	Course Title	Course Learning Outcome
DSE-	Vedāntasāra : Sadananda Yogindra Saraswati	Sadananda Yogindra Saraswati, the exponent of the Advaita Vedanta as taught by Adi Shankara and the renowned author of Vedantasara which is one of the best known Prakarana Grantha (textbook) of the philosophy of the Upanishads. In his works, Sadananda stresses the liberated being's freedom from bondage, detachment from the body, and constant goodness, although being beyond virtue. The liberated being after having lived out his prarabdha karma merges with Brahman. It is truly the essence of Vedanta.
3B	OR	
	DSE-3B: Śrimadbhaga badgīta	The Bhagavad Gita acts as a powerful catalyst for change and renovation in one's life. The verses from this book contribute to improving self-reflection, better the senses and expand one's inner development, makes the life more active and joy at any circumstances, through attitudinal changes in the individuals. It offers us the tools to connect with our deepest insubstantial spirit, and leads us to participate in the battle of life.

#### **Department of Philosophy**

#### **Course Outcomes (Continued)**

#### **SEMESTER-VI** (Continued)

Course ID	Course Title	Course Learning Outcome
DSE-4 To Take Any one Of DSE4A DSE4B DSE4C DSE4D	DSE4A Swami Vivekananda	In the 19th century, India was not marked by any noteworthy philosophical achievements, but the period was one of great social and religious reform movements.  Swami Vivekananda was born Narendra Nath Datta, on 12th January 1863. He was a monk and chief disciple of Ramakrishna Paramhansa. He introduced Indian philosophies of Vedanta and Yoga to the Western world and is credited with raising interfaith awareness, bringing Hinduism to the world stage during the late 19th century. Core Values Of Swami Vivekanand's Philosophy  Morality is both individual life and social life is mostly based on fear of societal censure. But Vivekananda gave a new theory of ethics and new principle of morality based on the intrinsic purity and oneness of the Atman.  Ethics according to Vivekananda was nothing but a code of conduct that helps a man to be a good citizen. We should be pure because purity is our real nature, our true divine Self or Atman. Similarly, we should love and serve our neighbours because we are all one in the Supreme Spirit known as Paramatma or Brahman.  One of the most significant contributions of Swami Vivekananda to the modern world is his interpretation of religion as a universal experience of transcendent Reality, common to all humanity. This universal conception frees religion from the hold of superstitions, dogmatism, priestcraft and intolerance. He believed that every religion offered a pathway to the eternal supreme – supreme freedom, supreme knowledge, supreme happiness. This can be accomplished by realising one's ATMA as part of PARAMATMA.  Swami Vivekananda laid the greatest emphasis on education for the regeneration of our motherland. According to him, a nation is advanced in proportion as education is spread among the masses. He said that our process of education should be such that it helps the students to manifest their innate knowledge and power. He advocated a man-making characterbuilding education. He said that education must make the students self-reliant and help them face the challenges of

#### **Department of Philosophy**

#### **Course Outcomes (Continued)**

#### **SEMESTER-VI (Continued)**

Course ID	Course Title	Course Learning Outcome
	DSE4B  Rabindranath  Tagore	Rabindranath Tagore's philosophical thinking is no less based on the Upanishads, but his interpretation of them is closer to Vaishnava theism and the bhakti cults than to traditional monism. He characterized the absolute as the supreme person and placed love higher than knowledge. In his <i>Religion of Man</i> , Tagore sought to give a philosophy of man in which human nature is characterized by a concept of surplus energy that finds expression in creative art. In his lectures on <i>Nationalism</i> , Tagore placed the concept of society above that of the modern nation-state.
DSE-4 To Take Any one Of DSE4A DSE4B DSE4C DSE4D	DSE4C Sri Aurobindo	In his major work, <i>The Life Divine</i> , Sri Aurobindo starts from the fact of the human aspiration for a kingdom of heaven on earth and proceeds to give a theoretical framework in which such an aspiration would be not a figment of imagination but a drive-in nature, working through man toward a higher stage of perfection. Both the denial of the materialist and that of the ascetic are rejected as being one-sided. The gulf between unconscious matter and fully self-conscious spirit is sought to be bridged by exhibiting them as two poles of a series in which spirit continuously manifests itself. The Vedantic concept of a transcendent and all-inclusive <i>brahman</i> is sought to be harmonized with a theory of emergent evolution. Illusionism is rejected. The purpose of man is to go beyond his present form of consciousness.
	DSE4D M.K. Gandhi	Gandhi preferred to say that the truth is God rather than God is the truth because the former proposition expresses a belief that even the atheists share. The belief in the presence of an all-pervading spirit in the universe led Gandhi to a strict formulation of the ethics of nonviolence (ahimsa). But he gave this age-old ethical principle a wealth of meaning so that ahimsa for him became at once a potent means of collective struggle against social and economic injustice, the basis of a decentralized economy and decentralized power structure, and the guiding principle of one's individual life in relation both to nature and to other persons. The unity of existence, which he called the truth, can be realized through the practice of ahimsa, which requires reducing oneself to zero and reaching the furthest limit of humility.

# LEARNING OUTCOMES OF B.A. HONOURS IN POLITICAL SCIENCE PROGRAMME

#### **Program Specific Outcomes**

## The student graduating with the Degree B.A. (Honours) in Political Science will have the following achievements

Political Science is interdisciplinary subject. So It's scope is vast. Students of Political Science can be engaged in different job sector.

- 1. Basic principles of Political Science can build good Politician. Our student can be good Politician.
- 2. Our Student study the Constitution of India and recent trends. Our student can be benefited in IAS, IPS. Judiciary related exam and WBCS etc.
- 3. Public Administration is included in syllabus of Political Science. Our students can be eligible in any Administration and Management sector. Our Students can be Advisor for Good Governance in any sector.
- 4. Political Science deals with Human Rights in different aspects .Our Students can be engaged with NGO and Voluntary Organisations as social worker
- 5. Political Science is connected with International Relations. Our students are benefited in different Foreign Service. Our student can be engaged with South Asian Studies as Researcher.
- 6. Our many students can be appointed as Assistant Teacher in different HS School through SSC, Our Student can be also appointed as Assistant Professor in College and University and Research Institute.

#### **Department of Political science**

#### **Programme: B.A. Honours in Political Science**

#### **Course Outcomes for Academic Year 2018-19**

#### **Three Tier Pattern**

Year	Course ID	Course Title	Outcome
	Paper-III	Political Theory	<ul> <li>Students learn:</li> <li>Nature of Politics</li> <li>Theories of States.</li> <li>State and Legal Imperatives</li> <li>Relation between State and Individual</li> <li>Nationalism and Internationalism</li> <li>Political obligation and right of resistance.</li> <li>Theories of democracy</li> <li>EmpiricalPoliticalTheories.</li> </ul>
2 <sup>nd</sup> Year (H)	Paper-IV	Comparative Government and Politics	<ul> <li>With an exposure of the structure and functioning of different political system across the world.</li> <li>The students can be ensured that Prime Minister of UK and President of USA are powerful in respective political system through compare between different political system.</li> </ul>
	Paper- V	International Relations and Organisations	<ul> <li>The students will get a broad theoretical outlook of chronological span of subject matter of international relations.</li> <li>The students would be able to grasp regional politics around SAARC.</li> <li>The students would be ensured that India maintain its bilateral relations with neighboring countries and big powers in World System through its basic principles.</li> </ul>
	Paper-VI	Society, State And Politics	<ul> <li>The student will gain knowledge the basic concept of civil society nationalism, social inequality, political culture in sociological perspective.</li> <li>The student will be able to apply Group Politics and identity Politics in Indian Political System.</li> </ul>
3 <sup>rd</sup> Year (H)	Paper- VII	Public administration	<ul> <li>The student will get a broad overview of public administration.</li> <li>Students can be oriented to join in Indian administration.</li> <li>Students understand that local self government like Panchayet and Municipalities are powerful in Indian polity.</li> </ul>
	Paper- VIII	Colonialism and Nationalism in India	<ul> <li>The student will be able to speak and write on the history of nationalism in India.</li> <li>The students can be followed the ideology and path of Gandhian Movement</li> <li>The students understand that communalism is main barrier of unity of India.</li> </ul>

#### **Department of Political science**

#### **Programme: B.A. Honours in Political Science**

**Course Outcomes for Academic Year 2018-19** 

#### **CBCS Pattern**

Semester	Course ID	Course Title	Outcome
	CC-1	Understanding Political Theory	<ul> <li>The students understand that Politics is a process, activity and discipline.</li> <li>The students earn democratic values</li> <li>The students are also motivated to take part in democratic institutions by participatory method.</li> </ul>
SEM-1	CC-2	Constitutional Government and Democracy in India	<ul> <li>The students are connotated that Preamble is the philosophy of the Constitution and ideal of the constitution of India.</li> <li>The students conscious their fundamental rights.</li> <li>The students understand that centre-state relations are essential in Federal structure of India.</li> <li>The students are encouraging to join grass root Politics.</li> </ul>
	CC-3	Political Theory- concept and debates	<ul> <li>This course help the student famillative with the basic values like Freedom, Equality and Justice.</li> <li>The students are concerned fairness and transparency of the process for the allocation of resources through Procedural Justice.</li> </ul>
SEM-II	CC-4	Political process in India	<ul> <li>Reflect the trends the nature of party system in Indian Polity</li> <li>The students can feel that division of politics through caste, language, religion and regional attitude invite secession politics in Indian state.</li> <li>The reflect that nature of Indian state is not static but dynamic. Students accept development and welfare nature of Indian state. But they protest against the coercive nature of Indian state</li> </ul>

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF PHYSICS HONOURS PROGRAMME

#### **Program Specific Outcomes**

Of

### The students graduating with the Degree B.Sc. (Honours) in Physics and those studying GE Courses in Physics

- 1. Students are expected to acquire core knowledge in Physics, including the major premises of mechanics (classical, quantum, statistical), electromagnetic theory, electronics, modern physics, mathematical physics, condensed matter physics etc.
- 2. Students are also expected to develop a written and oral communication skills in communicating physics-related topics.
- 3. A strong foundation of knowledge of physics helps the students to enter into the higher level of study and research.
- 4. Students should learn how to design and conduct an experiment (or series of experiments) demonstrating their understanding of the scientific method and processes. Not only that they are expected to have an understanding of the analytical methods required to interpret and analyse results and draw conclusions as supported by their data.
- 5. Students will develop the proficiency in the acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data.
- 6. Students will learn the applications of numerical techniques for modelling physical systems for which analytical methods are inappropriate or of limited utility.
- 7. Students will realize and develop an understanding of the impact of physics and science on society.
- 8. Apply conceptual understanding of the physics to general real-world situations, and analyse physical problems and develop correct solutions using natural laws.
- 9. Describe the methodology of science and the relationship between observation and theory.
- 10. Learn to minimize contributing variables and recognize the limitations of equipment.
- 11. Discover of physics concepts in other disciplines such as mathematics, computer science, engineering, and chemistry.

# Course Outcomes of CC, SEC & DSEC Courses of Physics Honours and GE Courses Taught to Students of Other Honours Subjects SEM-I

	Course	Course Title &	SEM-I
SEM	ID	Credits (T+P)	Course Outcomes
		ereuns (1-11)	Revise the knowledge of calculus, vectors, vector calculus, probability and probability distributions. These basic mathematical structures are essential in solving problems in various branches of Physics as well as in engineering.
		Mathematical	➤ Learn the curvilinear coordinates which have applications in problems with spherical and cylindrical symmetries.
	CC1	Physics-I 4+2	➤ Learn the Dirac delta function its properties, which have applications in various branches of Physics, especially quantum mechanics.
			➤ In the laboratory course, learn the fundamentals of the Python programming languages and their applications in solving simple physical problems involving interpolations, differentiations, integrations, differential equations as well as finding the roots of equations.
			Understand laws of motion and their application to various dynamical situations, notion of inertial frames and concept of Galilean invariance. He / she will learn the concept of conservation of energy, momentum, angular momentum and apply them to basic problems. 2. Understand the analogy between translational and rotational dynamics, and application of both motions simultaneously in analyzing rolling with slipping.
I			Write the expression for the moment of inertia about the given axis of symmetry for different uniform mass distributions.
	C2		Understand the phenomena of collisions and idea about center of mass and laboratory frames and their correlation.
			Understand the principles of elasticity through the study of Young Modulus and modulus of rigidity.
		Mechanics 4+2	> Understand simple principles of fluid flow and the equations governing fluid dynamics.
		112	Apply Kepler's law to describe the motion of planets and satellite in circular orbit, through the study of law of Gravitation.
			Explain the phenomena of simple harmonic motion and the properties of systems executing such motions. 9. Describe how fictitious forces arise in a non-inertial frame, e.g., why a person sitting in a merry-go-round experiences an outward pull.
			> Describe special relativistic effects and their effects on the mass and energy of a moving object.
			> Appreciate the nuances of Special Theory of Relativity.
			➤ In the laboratory course, the student shall perform experiments related to mechanics (compound pendulum), rotational dynamics (Flywheel), elastic properties (Young Modulus and Modulus of Rigidity) and fluid dynamics etc.

### **Course Outcomes (Continued) SEM-I**

SEM	Course ID	Course Title & Credits (T+P)	Course Outcomes								
		Cituits (1+1)	Creats (1+1)	TD Credits (1/1)	➤ Know main aspects of the inadequacies of classical mechanics and understand historical development of quantum mechanics and ability to discuss and interpret experiments that reveal the dual nature of matter.						
			Understand the theory of quantum measurements, wave packets and uncertainty principle.								
		Elements of Modern Physics 4+2	Understand the central concepts of quantum mechanics: wave functions, momentum and energy operator, the Schrodinger equation, time dependent and time independent cases, probability density and the normalization techniques, skill development on problem solving e.g. one-dimensional rigid box, tunnelling through potential barrier, step potential, rectangular barrier.								
I			JEI .	4+2				•			
					Ability to calculate the decay rates and lifetime of radioactive decays like alpha, beta, gamma decay. Neutrinos and its properties and role in theory of beta decay.						
		>	➤ Understand fission and fusion well as nuclear processes to produce nuclear energy in nuclear reactor and stellar energy in stars.								
			➤ Understand various interactions of electromagnetic radiation with matter. Electron positron pair creation. 8. In the laboratory course, the students will get opportunity to perform various experiments to verify different theories they learned in this course.								

# Course Outcomes (Continued) SEM-II Course Outcomes

CEM	Course	Course Title &	Course Outcomes
SEM	ID	Credits (T+P)	After going through the course, the student should be able to
II	CC3	Electricity & Magnetism 4+2	<ul> <li>Demonstrate Gauss law, Coulomb's law for the electric field, and apply it to systems of point charges as well as line, surface, and volume distributions of charges.</li> <li>Explain and differentiate the vector (electric fields, Coulomb's law) and scalar (electric potential, electric potential energy) formalisms of electrostatics.</li> <li>Apply Gauss's law of electrostatics to solve a variety of problems.</li> <li>Articulate knowledge of electric current, resistance and capacitance in terms of electric field and electric potential.</li> <li>Demonstrate a working understanding of capacitors. 6. Describe the magnetic field produced by magnetic dipoles and electric currents.</li> <li>Explain Faraday-Lenz and Maxwell laws to articulate the relationship between electric and magnetic fields.</li> <li>Understand the dielectric properties, magnetic properties of materials and the phenomena of electromagnetic induction.</li> <li>Describe how magnetism is produced and list examples where its effects are observed.</li> <li>Apply Kirchhoff's rules to analyse AC circuits consisting of parallel and/or series combinations of voltage sources and resistors and to describe the graphical relationship of resistance, capacitor and inductor.</li> <li>Apply various network theorems such as Superposition, Thevenin, Norton, Reciprocity, Maximum Power Transfer, etc. and their applications in electronics, electrical circuit analysis, and electrical machines.</li> <li>In the laboratory course the student will get an opportunity to verify various laws in electricity and magnetism such as Lenz's law, Faraday's law and learn about the construction, working of various measuring instruments. The students should be able to verify of various circuit laws, network theorems elaborated above, using simple electric circuits.</li> </ul>
	CC4	Waves & Optics 4+2	<ul> <li>Recognize and use a mathematical oscillator equation and wave equation, and derive these equations for certain systems.</li> <li>Apply basic knowledge of principles and theories about the behaviour of light and the physical environment to conduct experiments.</li> <li>Understand the principle of superposition of waves, so thus describe the formation of standing waves.</li> <li>Explain several phenomena we can observe in everyday life that can be explained as wave phenomena.</li> <li>Use the principles of wave motion and superposition to explain the Physics of polarisation, interference and diffraction.</li> <li>Understand the working of selected optical instruments like biprism, interferometer, diffraction grating, and holograms.</li> <li>In the laboratory course, student will gain hands-on experience of using various optical instruments and making finer measurements of wavelength of light using Newton Rings experiment, Fresnel Biprism etc. Resolving power of optical equipment can be learnt first-hand.</li> <li>The motion of coupled oscillators, study of Lissajous figures and behaviour of transverse, longitudinal waves can be learnt in this laboratory course</li> </ul>

## Course Outcomes (Continued) SEM-II

		C mu c	SEM-II				
SEM	Course	Course Title &	Course Outcomes				
SENI	ID	Credits (T+P)	After going through the course, the student should be able to				
		Thermal Physics & Statistical Mechanics	Learn the basic concepts of thermodynamics, the first and the second law of thermodynamics, the concept of entropy and the associated theorems, the thermodynamic potentials and their physical interpretations. They are also expected to learn Maxwell's thermodynamic relations.				
	GE2		Know the fundamentals of the kinetic theory of gases, Maxwell-Boltzmann distribution law, equipartition of energies, mean free path of molecular collisions, viscosity, thermal conductivity, diffusion and Brownian motion.				
II			➤ Have a knowledge of the real gas equations, Van der Waal equation of state, the Joule Thompson effect.				
						4+2	➤ Learn about the black body radiations, Stefan- Boltzmann's law, Rayleigh-Jean's law and Planck's law and their significances.
				➤ Learn the quantum statistical distributions, viz., the Bose-Einstein statistics and the Fermi-Dirac statistics.			
			In the laboratory, the students are expected to perform the various experiments regarding heat, thermodynamics and statistical mechanics.				

## Course Outcomes (Continued) SEM-III

CE3.5	Course	Course Title &	Course Outcomes
SEM	ID	Credits (T+P)	After going through the course, the student should be able to
	CC5	Mathematical Physics-II 4+2	<ul> <li>Learn the Fourier analysis of periodic functions and their applications in physical problems such as vibrating strings etc.</li> <li>Learn about the special functions, such as the Hermite polynomial, the Legendre polynomial, the Laguerre polynomial and Bessel functions and their differential equations and their applications in various physical problems such as in quantum mechanics which they will learn in future courses in detail.</li> <li>Learn the beta, gamma and the error functions and their applications in doing integrations</li> <li>Know about the basic theory of errors, their analysis, estimation with examples of simple experiments in Physics.</li> <li>Acquire knowledge of methods to solve partial differential equations with the examples of important partial differential equations in Physics.</li> <li>Apply the Python programme in curve fittings, in solving system of linear equations, generating and plotting special functions such as Legendre polynomial and Bessel functions, solving first and second order ordinary and partial differential equations</li> </ul>
Ш	CC6	Thermal Physics 4+2	<ul> <li>Comprehend the basic concepts of thermodynamics, the first and the second law of thermodynamics, the concept of entropy and the associated theorems, the thermodynamic potentials and their physical interpretations.</li> <li>Learn about Maxwell's thermodynamic relations.</li> <li>Learn the basic aspects of kinetic theory of gases, Maxwell-Boltzmann distribution law, equitation of energies, mean free path of molecular collisions, viscosity, thermal conductivity, diffusion and Brownian motion.</li> <li>Learn about the real gas equations, Van der Waal equation of state, the Joule Thompson effect.</li> <li>In the laboratory course, the students are expected to do some basic experiments in thermal Physics, viz., determinations of Stefan's constant, coefficient of thermal conductivity, temperature coefficient of resistant, variation of thermo-emf of a thermocouple with temperature difference at its two junctions and calibration of a thermocouple.</li> </ul>
	CC7	Digital Systems and Applications 4+2	<ul> <li>Basic working of an oscilloscope including its different components and to employ the same to study different wave forms and to measure voltage, current, frequency and phase.</li> <li>Secure first-hand idea of different components including both active and passive components to gain a insight into circuits using discrete components and also to learn about integrated circuits.</li> <li>About analog systems and digital systems and their differences, fundamental logic gates, combinational as well as sequential and number systems.</li> <li>Synthesis of Boolean functions, simplification and construction of digital circuits by employing Boolean algebra.</li> <li>Sequential systems by choosing FlipFlop as a building bock-construct multivibrators, counters to provide a basic idea about memory including RAM, ROM and also about memory organization.</li> <li>In the laboratory he is expected to construct both combinational circuits and sequential circuits by employing NAND as building blocks and demonstrate Adders, Subtractors, Shift Registers, and multivibrators using 555 ICs.</li> </ul>

## Course Outcomes (Continued) SEM-III

SEM	Course ID	Course Title & Credits (T+P)	Course Outcomes
	SEC1	Electrical circuits & Network Skills	After the completion of the course the student will acquire necessary skills/ hands on experience /working knowledge on multi-meters, volt-meters, ammeters, electric circuit elements, dc power sources, ac/dc generators, inductors, capacitors, transformers, single phase and three phase motors, interfacing dc/ac motors to control and measure, relays and basics of electrical wiring.
III	GE3	Solid State Physics 4+2	<ul> <li>At the end of the course the student is expected to learn and assimilate the following:</li> <li>A brief idea about crystalline and amorphous substances, about lattice, unit cell, miller indices, reciprocal lattice, concept of Brillouin zones and diffraction of X-rays by crystalline materials.</li> <li>Knowledge of lattice vibrations, phonons and in depth of knowledge of Einstein and Debye theory of specific heat of solids.</li> <li>Knowledge of different types of magnetism from diamagnetism to ferromagnetism and hysteresis loops and energy loss.</li> <li>Secured an understanding about the dielectric and ferroelectric properties of materials.</li> <li>Understanding above the band theory of solids and must be able to differentiate insulators, conductors and semiconductors.</li> <li>Understand the basic idea about superconductors and their classifications.</li> <li>To carry out experiments based on the theory that they have learned to measure the magnetic susceptibility, dielectric constant, trace hysteresis loop.</li> </ul>

## Course Outcomes (Continued) SEM-IV

SEM	Course	Course Title &	Course Outcomes		
SENI	ID	Credits (T+P)	After going through the course, the student should be able to		
	CC8	Mathematical Physics-III 4+2	<ul> <li>Learn about the complex numbers and their properties, functions of complex numbers and their properties such as analyticity, poles and residues. The students are expected to learn the residue theorem and its applications in evaluating definite integrals.</li> <li>Learn about the Fourier transform, the inverse Fourier transform, their properties and their applications in physical problems. They are also expected to learn the Laplace transform, the inverse Laplace transforms, their properties and their applications in solving physical problems.</li> <li>In the laboratory course, the students should apply Python programming language to solve solution first- and second- order ordinary differential equations with appropriate boundary conditions, evaluation of the Gaussian integrals, evaluation of a converging infinite series up to a desired accuracy, evaluation of the Fourier coefficients of a given periodic function, plotting the Legendre polynomials and the Bessel functions of different orders and interpretations of the results, and least square fit of a given data to a graph.</li> </ul>		
IV	CC9	Elements of Modern Physics 4+2	<ul> <li>Know main aspects of the inadequacies of classical mechanics and understand historical development of quantum mechanics and ability to discuss and interpret experiments that reveal the dual nature of matter.</li> <li>Understand the theory of quantum measurements, wave packets and uncertainty principle.</li> <li>Understand the central concepts of quantum mechanics: wave functions, momentum and energy operator, the Schrodinger equation, time dependent and time independent cases, probability density and the normalization techniques, skill development on problem solving e.g. one-dimensional rigid box, tunnelling through potential barrier, step potential, rectangular barrier.</li> <li>Understanding the properties of nuclei like density, size, binding energy, nuclear forces and structure of atomic nucleus, liquid drop model and nuclear shell model and mass formula.</li> <li>Ability to calculate the decay rates and lifetime of radioactive decays like alpha, beta, gamma decay. Neutrinos and its properties and role in theory of beta decay.</li> <li>Understand fission and fusion well as nuclear processes to produce nuclear energy in nuclear reactor and stellar energy in stars.</li> <li>Understand various interactions of electromagnetic radiation with matter. Electron positron pair creation.</li> <li>Understand the spontaneous and stimulated emission of radiation, optical pumping and population inversion. Three level and four level lasers. Ruby laser and He-Ne laser in details. Basic lasing.</li> <li>In the laboratory course, the students will get opportunity to perform the following experiments: measurement of Planck's constant by more than one method, verification of the photoelectric effect and determination of the work Function of a metal, determination of the charge of electron and e/m of electron, determination of the ionization potential of atoms, determine the wavelength of the emission lines in the rotational spectrum of molecules etc.</li> </ul>		

## **Course Outcomes (Continued) SEM-IV**

SEM	Course	Course Title &			
	ID	Credits (T+P)	After going through the course, the student should be able to		
	CC10	Analog Systems and Applications 4+2	<ul> <li>At the end of the course the student is expected to assimilate the following and possesses basic knowledge of the following:         <ul> <li>n- and p-type semiconductors, mobility, drift velocity, fabrication of p-n junctions; forward and reverse biased junctions.</li> <li>Application of p-n junction for different type of rectifiers and voltage regulators.</li> <li>npn and pnp transistors and basic configurations namely common base, common emitter and common collector, and also about current and voltage gain.</li> <li>Biasing and equivalent circuits, coupled amplifiers and feedback in amplifiers and oscillators.</li> <li>Operational amplifiers and knowledge about different configurations namely inverting and non-inverting and applications of operational amplifiers in D to A and A to D conversions.</li> <li>To characterize various devices namely p-n junction diodes, LEDs, Zener diode, solar cells, pnp and npn transistors. Also construct amplifiers and oscillators using discrete components. Demonstrate inverting and non-inverting amplifiers using op-amps.</li> </ul> </li> </ul>		
IV	SEC2	Renewable Energy and Energy Harvesting	<ul> <li>The students are expected to learn not only the theories of the renewable sources of energy, but also to have hands-on experiences on them wherever possible. Some of the renewable sources of energy which should be studied here are: (i) off-shore wind energy, (ii) tidal energy, (iii) solar energy, (iv) biogas energy and (v) hydroelectricity. All these energy sources should be studied in detail.</li> <li>Learn about piezoelectricity, carbon- captured technologies like cells, batteries.</li> <li>The students should observe practical demonstrations of training modules of solar energy, conversion of thermal energy into voltage using thermoelectric modules etc.</li> </ul>		
	GE4	Electricity and Magnetism 4+2	<ul> <li>This course will help in understanding basic concepts of electricity and magnetism and their applications.</li> <li>Apply various network theorems such as Superposition Theorem, Thevenin Theorem, Norton Theorem, Reciprocity Theorem, Maximum Power Transfer, etc. and their applications in electronics, electrical circuit analysis, and electrical machines.</li> <li>In the laboratory course the student will get an opportunity to verify all the theorems mentioned above using simple electric circuits.</li> </ul>		

## Course Outcomes (Continued) SEM-V

OE F	Course Course Title &		Course Outcomes
SEM	ID	Credits (T+P)	After going through the course, the student should be able to
V	CC11	Quantum Mechanics and Applications 4+2	<ul> <li>This course will enable the student to get familiar with quantum mechanics formulation.</li> <li>After an exposition of inadequacies of classical mechanics in explaining microscopic phenomena, quantum theory formulation is introduced through Schrodinger equation.</li> <li>The interpretation of wave function of quantum particle and probabilistic nature of its location and subtler points of quantum phenomena are exposed to the student.</li> <li>Through understanding the behaviour of quantum particle encountering a i) barrier, ii) potential, the student gets exposed to solving non-relativistic hydrogen atom, for its spectrum and eigenfunctions.</li> <li>Study of influence of electric and magnetic fields on atoms will help in understanding Stark effect and Zeeman Effect respectively.</li> <li>The computations using Python will enable the student to appreciate nuances involved in the theory.</li> <li>In the laboratory course, with the exposure in computational programming in the computer lab, the student will be in a position to solve Schrodinger equation for ground state energy and wave functions of various simple quantum mechanical potentials.</li> </ul>
	CC12	Solid State Physics 4+2	<ul> <li>At the end of the course the student is expected to learn and assimilate the following.</li> <li>A brief idea about crystalline and amorphous substances, about lattice, unit cell, miller indices, reciprocal lattice, concept of Brillouin zones and diffraction of X-rays by crystalline materials.</li> <li>Knowledge of lattice vibrations, phonons and in depth of knowledge of Einstein and Debye theory of specific heat of solids.</li> <li>Knowledge of different types of magnetism from diamagnetism to ferromagnetism and hysteresis loops and energy loss.</li> <li>Secured an understanding about the dielectric and ferroelectric properties of materials.</li> <li>Understanding above the band theory of solids and must be able to differentiate insulators, conductors and semiconductors.</li> <li>Understand the basic idea about superconductors and their classifications.</li> <li>To carry out experiments based on the theory that they have learned to measure the magnetic susceptibility, dielectric constant, trace hysteresis loop. They will also employ to four probe methods to measure electrical conductivity and the hall set up to determine the hall coefficient of a semiconductor.</li> </ul>
	DSE1	Classical Dynamics 4+2	<ul> <li>Revise the knowledge of the Newtonian, the Lagrangian and the Hamiltonian formulations of classical mechanics and their applications in appropriate physical problems.</li> <li>Learn about the small oscillation problems.</li> <li>Recapitulate and learn the special theory of relativity- postulates of the special theory of relativity, Lorentz transformations on space-time and other four vectors, four-vector notations, space-time invariant length, length contraction, time dilation, mass-energy relation, Doppler effect, light cone and its significance, problems involving energy momentum conservations.</li> <li>Learn the basics of fluid dynamics, streamline and turbulent flow, Reynolds's number, coefficient of viscosity and Poiseuille's equation.</li> <li>Review the retarded potentials, potentials due to a moving charge, Lienard Wiechert potentials, electric and magnetic fields due to a moving charge, power radiated, Larmor's formula and its relativistic generalization.</li> </ul>

#### **Course Outcomes (Continued)**

#### SEM-V

	Course	Course Title &	Course Outcomes
SEM	ID		
V	1	Nuclear Physics 4+2	After going through the course, the student should be able to  Learn the ground state properties of a nucleus — the constituents and their properties, mass number and atomic number, relation between the mass number and the radius and the mass number, average density, range of force, saturation property, stability curve, the concepts of packing fraction and binding energy, binding energy per nucleon vs. mass number graph, explanation of fusion and fission from the nature of the binding energy graph.  Know about the nuclear models and their roles in explaining the ground state properties of the nucleus —(i) the liquid drop model, its justification so far as the nuclear properties are concerned, the semi-empirical mass formula, (ii) the shell model, evidence of shell structure, magic numbers, predictions of ground state spin and parity, theoretical deduction of the shell structure, consistency of the shell structure with the Pauli exclusion principles.  Learn about the process of radioactivity, the radioactive decay law, the emission of alpha, beta and gamma rays, the properties of the constituents of these rays and the mechanisms of the emissions of these rays, outlines of Gamow's theory of alpha decay and Pauli's theory of beta decay with the neutrino hypothesis, the electron capture, the fine structure of alpha particle spectrum, the Geiger-Nuttall law, the radioactive series.  Learn the basic aspects of nuclear reactions, the Q-value of such reaction and its derivation from conservation laws. The reaction cross-sections, the types of nuclear reactions, direct and compound nuclear reactions, Rutherford scattering by Coulomb potential.  Learn some basic aspects of interaction of nuclear radiation with matter-interaction of gamma ray by photoelectric effect, Compton scattering and pair production, energy loss due to ionization, Cerenkov radiation.  Learn about the detectors of nuclear radiations-the Geiger-Mueller counter, the scintillation counter, the photo-multiplier tube, the solid state and semiconductor det

#### **Course Outcomes (Continued)**

#### SEM-VI

SEM	Course	Course Title &	Course Outcomes
	ID	Credits (T+P)	After going through the course, the student should be able to
VI	CC13	Electromagn etic Theory 4+2	<ul> <li>Achieve an understanding of the Maxwell's equations, role of displacement current, gauge transformations, scalar and vector potentials, Coulomb and Lorentz gauge, boundary conditions at the interface between different media.</li> <li>Apply Maxwell's equations to deduce wave equation, electromagnetic field energy, momentum and angular momentum density.</li> <li>Analyse the phenomena of wave propagation in the unbounded, bounded, vacuum, dielectric, guided and unguided media.</li> <li>Understand the laws of reflection and refraction and to calculate the reflection and transmission coefficients at plane interface in bounded media.</li> <li>Understand the linear, circular and elliptical polarisations of em-waves. Production as well as detection of waves in laboratory.</li> <li>Understand propagation of em-waves in anisotropic media, uniaxial and biaxial crystals phase retardation plates and their uses.</li> <li>Understand the concept of optical rotation, theories of optical rotation and their experimental rotation, calculation of angle rotation and specific rotation.</li> <li>Understand the features of planar optical wave guide and obtain the Electric field components, Eigen value equations, phase and group velocities in a dielectric wave guide.</li> <li>Understand the fundamentals of propagation of electromagnetic waves through optical fibres and calculate numerical apertures for step and graded indices and transmission losses.</li> <li>In the laboratory course, the student gets an opportunity to perform experiments Demonstrating principles of Interference, Refraction and diffraction of light using monochromatic sources of light. Determine the refractive index of glass and liquid using total internal reflection of light. Verify the laws of Polarisation for plane polarised light, Study specific rotation of sugar using Polarimeter etc.</li> </ul>
	CC14	Statistical Mechanics 4+2	<ul> <li>Understand the concepts of microstate, macrostate, ensemble, phase space, thermodynamic probability and partition function, studies of particles with their distinguishably or indistinguishably nature and conditions which lead to the three different distribution laws e.g. Maxwell-Boltzmann distribution, Bose-Einstein distribution and Fermi-Dirac distribution laws of particles and their derivation.</li> <li>Comprehend and articulate the connection as well as dichotomy between classical statistical mechanics and quantum statistical mechanics.</li> <li>Learn to apply the classical statistical mechanics to derive the law of equipartition of energy and specific heat.</li> <li>Understand the Gibbs paradox, equipartition of energy and concept of negative temperature in two level system.</li> <li>Learn to derive classical radiation laws of black body radiation. Wiens law, Rayleigh Jeans law, ultraviolet catastrophe. Saha ionization formula.</li> <li>Learn to calculate the macroscopic properties of degenerate photon gas using BE distribution law, understand Bose-Einstein condensation law and liquid Helium. Bose derivation of Plank's law.</li> <li>Understand the concept of Fermi energy and Fermi level, calculate the macroscopic properties of completely and strongly degenerate Fermi gas, electronic contribution to specific heat of metals.</li> <li>Understand the application of F-D statistical distribution law to derive thermodynamic functions of a degenerate Fermi gas, electron gas in metals and their properties.</li> <li>Calculate electron degeneracy pressure and ability to understand the Chandrasekhar mass limit, stability of white dwarfs against gravitational collapse.</li> <li>In the laboratory course, the students get an opportunity to verify different laws and principles related to statistical mechanics using Python programming.</li> </ul>

#### **Course Outcomes (Continued)**

#### SEM-VI

SEM	Course	Course Title &	Course Outcomes
	ID	Credits (T+P)	After going through the course, the student should be able to
VI	DSE3	Nano- materials and Applications 4+2	<ul> <li>At the end of the course the student is expected to possess the concept the following:</li> <li>In the Nano systems and its implications in modifying the properties of materials at the nanoscale.</li> <li>Concept of Quantum confinement, 3D,2D,1D and 0D nanostructure with examples.</li> <li>Different synthesis techniques including top down and bottom up approaches.</li> <li>Characterization of nanostructured materials using X-ray diffraction, electron microscopy, Atomic Force Microscopy and Scanning Tunneling Microscopy.</li> <li>Optical properties of nanostructured materials, modification of band gap, excitonic confinement.</li> <li>Applications of nanostructured materials in making devices namely MEMS, NEMS and other heterostructures for solar cell and LEDs.</li> <li>The student will synthesize nanoparticles by different chemical routs and characterize them in the laboratory using the different techniques he has learnt in the theory. He will also carry out thin film preparation and prepare capacitors and evaluate its performance. He also expected to fabricate a p-n diode and study its I-V characteristics.</li> </ul>
	DSE4	Experimental Techniques 4+2	<ul> <li>At the end of the course the student should be conversant with the following:</li> <li>About accuracy and precision, different types of errors and statistical analysis of data.</li> <li>About Noise and signal, signal to noise ratio, different types of noises and their identification.</li> <li>Concept of electromagnetic interference and necessity of grounding.</li> <li>About transducers and basic concepts of instrumentation-Different types of transducers and sensors.</li> <li>Working of a digital multi-meter and Vacuum systems.</li> <li>6. Conduct different experiments and gain hands on experience and verify the theory</li> </ul>

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF CHEMISTRY HONOURS PROGRAMME

## **Program Specific Outcomes**

Of

# The students graduating with the Degree B.Sc. (Honours) in Chemistry and those studying GE Courses in Chemistry

- 1. Developing knowledge on the basis of the theoretical concept associated with all three branches of chemistry: organic, inorganic and physical chemistry.
- 2. Familiarising with different fields of chemistry such as biochemistry, polymer, analytical chemistry, some industrial work... etc.
- 3. Learning qualitative and quantitate analysis of different chemicals in laboratory.
- 4. Learning operation techniques for handling the different instruments in undergraduate level.
- 5. Developing the idea to predict the possible outcomes of an unknown chemical reaction and proposing a possible mechanism.
- 6. Learning to solve chemical problems employing relevant mathematical models.
- 7. Learning to synthesis, separation and characterising compounds using laboratory and instrumental techniques.

## Course Outcomes of CC, SEC & DSEC Courses of Chemistry Honours and GE Courses Taught to Students of Other Honours Subjects

SEM-I

Course ID	Course ID (detailed)	Course Title & Description	Course Outcomes
CC1	C1T1	Organic chemistry-  1 (Theory) Organic Chemistry (Basics of organic chemistry, General treatment of reaction mechanism-1, stereochemistry -1)	On completion of 1st semester, the students will be able to understand basic of organic molecules, structure, bonding, reactivity and reaction mechanisms. They also acquire concepts of stereochemistry of organic molecules. It provides balance knowledge in chemistry in addition to understanding of key chemical concepts, principles and theories.
	C1P1	CC1 Lab Chemistry Lab 1. (separation, determination of boiling point, identification of pure organic compound)	By opting the practical classes, students can understand the basic principle of equipment, instruments used in the chemistry laboratory. They can characterize, separate and purify the unknown organic molecules and by this way they can justify their theoretical concepts.
CC2	C2T2	Physical Chemistry  Physical Chemistry  -1  Theory (Kinetic theory of gas, chemical thermodynamics, chemical kinetics)	This course provides the knowledge on idea of velocities of gas molecules, energy and their distribution according to Maxwell's distribution law. It also gives the idea on viscosity, collision density, equipartition principle, heat capacityetc. of gas molecules (ideal and real). This course also provides the knowledge on thermodynamic concepts, laws and their utilities. Students also acquire the concept of kinetics and mechanism of different types of reactions.
	C2P2	Physical Chemistry -1 (Practical)	By opting practical classes, students can determine the heat of neutralization of acid-base reaction, heat of solution, rate constant of a chemical reaction.
GE1	GE1T1	Atomic structure, chemical periodicity, acid and bases, redox reactions, general organic chemistry and aliphatic hydrocarbons	GE course in this semester provides the knowledge of basic organic chemistry. From this course, students can visualize the molecule after understanding the stereochemistry of it. Students are able to understand the physical and chemical characteristics of elements in various groups and periods according to ionic size, charge, etc. and position in periodic table.
	GE1P1	GE1 Practical	Students will be able to demonstrate the experimental techniques and methods. They acquire ideas about the acid-base, redox titration. They start recognizing the organic molecules by qualitative analysis.

## SEM-II

Course ID	Course ID (T/P)	Course Title & Description	Course Outcomes
CC3	C3T3	Inorganic Chemistry-I Theory (Structure of atom, periodic table, acid- base, redox and precipitation reactions)	This course gives the knowledge on:  i) Structure of atom, different principles involved in electronic accommodation in atom, quantum numbers, shape of orbitals and ground state term symbols.  ii) Physical and chemical properties of elements in a group and in a period.  iii) Electrochemical reaction and its application.
	СЗРЗ	Inorganic Chemistry-I Lab (Acid-base, redox titrations)	Upon completion this course, students should be able to estimate quantitatively the presence of alkali in soap or detergents, metal ion in a sample containing mixture of metal ions.
CC4	C4T4	Organic Chemistry II Theory (Stereochemistry II, general treatment of reaction mechanism II, Substitution and Elimination reactions)	In this semester they are offered in detailed concepts of reaction mechanism with stereochemistry. From which they start thinking and apply the understanding of the subject, in identifying the problems which they try to solve through the use of their chemistry knowledge.
664	C4P4	Organic Chemistry II Lab (Organic Preparation, percentage yield calculation)	By doing the practical classes, students will learn the procedure of synthesis of several important organic molecules. The opportunities of exposure to jobs in industries, scientific projects and allied sectors are increased.
	GE2T	GE2 Theory States of matter, chemical kinetics, chemical bonding, p-block elements)	This course deals with study of  i) Properties and laws of different states of matter  ii) Kinetic treatments on different types of reactions  iii) Nature of chemical bonds with VBT and MOT  iv) Character and properties of elements
GE2	GE2P	GE2 Practical (Determination of surface tension and viscosity of a solution. Determination of rate constant for some chemical reactions.)	Upon successful completion of the course, students are able to determine the surface tension, viscosity of a solution and kinetic study on different reactions.

## SEM-III

Course ID	Course ID (T/P)	Course Title & Course Outcomes  Description	
		Physical chemistry	This course is related to fluid dynamics, conductive property of electrolytes, transport number and
CC5	C5T	Physical chemistry-II Theory (Transport processes, Application of thermodynamics -1, Foundation of quantum mechanics	determination of transport number, role of different forces on ion conductance, thermodynamic treatment on chemical reaction under equilibrium, Nernst's distribution law and its application.  The major important part of this course is introduction of quantum mechanics, which gives the idea on operator, postulates, particle in box and simple harmonic oscillationetc.
	C5P	Physical chemistry-II Lab (Determination of viscosity, equilibrium constant, partition coefficient and conductometric titration.	Upon successful completion of the course, students are able to determine viscosity of a solution, equilibrium constant by partition method. They also are able to handle equipment's and instruments required for conductometric titration.
CC6	С6Т	Inorganic Chemistry  Inorganic Chemistry –  II Theory (Chemical bonding, radioactivity)	This course deals with the study on  i) Nature of chemical bonding in compounds  ii) Fajan's rule, VBT, VSEPR, MOT, LCAO, HOMO- LUMO concept, different types of forces and their applications.  iii) Radioactive decay, half-life, average-life of radioactive element, determination of age of a sample and earth, application in atom-bomb, nuclear reactionsetc.
	C6P	Inorganic Chemistry II Lab	This course is related to estimation of Cu(II), Vitamin-C, Cr and Mn in steal, available chlorine in bleaching powder and Iron in cement.
CC7	C7T	Organic Chemistry Organic Chemistry III Theory	This course discussed about the synthesis and properties of biologically important and versatile organometallic reagent. Students are able to understand the principle of green chemistry, alternative solvent media and energy sources for chemical processes. This course open up a new area of research to the students
	C7P	Organic Chemistry III Lab	From this practical class they can apply subject knowledge and skill in near future.

## **SEM-III (Continued)**

Course ID	Course ID (T/P)	Course Title & Description	Course Outcomes
SPC1	SEC1T	SEC1 Theory	Nowadays synthesis of medicine is a very important issue for pharmaceutical industry. This course mainly deals with the structural determination, synthesis and uses of some drugs such as antipyretics, analgesic, sulpha-drugs penicillin etc.
SEC1	SEC1P	SEC1 Practical	Inclusion of this course provides a solid basement to the students for getting opportunity in pharmaceutical industries.
GE3	Physical chemistry- II Theory (Chemical energetics, chemical equilibrium, ionic equilibrium) (Organic chemistry-II) (Aromatic hydrocarbon, organometallic compounds, alcohols, phenols and ethers)		From this course, students can get the idea on heat dynamics (on closed and isolated) for different systems, concept of different state functions and their applications, efficiency of engines and refrigerator, equilibrium state in chemical change, solubility related problems, synthesis of organic molecules using organometallic compounds.

Course	Course ID	Course Title &	
ID	(T/P)	Description	Course Outcomes
CC8	С8Т	Physical chemistry-III Theory (Colligative properties, phase rule, e.m.f. quantum chemistry)	Enable the students to understand: colligative properties of a solution, phase rule in heterogeneous equilibrium. Electrochemistry discussed electrical phenomenon in different cells. Different applications are there of this course. Quantum chemistry provides the student a solid capability for theoretical research work in chemistry.
	C8P	Physical chemistry-III Practical	By doing the practical class, students learn the procedure for the determination of solubility and solubility product of a compound, potentiometric titration, pH metric titration and the study on phase diagram experimentally.
CC9	С9Т	Inorganic Chemistry-III Theory (Chemistry of elements, coordination chemistry, inorganic polymer)	This course is aimed to provide the students with a solid understanding of properties and chemistry of noble gases, p-block elements, and inorganic polymers.  This course is attached with an important chapter; coordination chemistry. From the study of this chapter students get the idea about ligands, IUPAC-nomenclature, Werner's theory, Geometry and stereochemistry of complex compounds.
	С9Р	Inorganic Chemistry-III Practical	From this course students acquire the quantitative estimation of different metal ions in a mixture by complexometric titration method.
CC10	C10T	Organic Chemistry-IV Theory (N-compounds, rearrangements, logic of organic synthesis and organic spectroscopy)	This course deals with the study on the properties, preparation, separation and different chemical reactions of different nitrogen compounds.  This course provides a solid understanding on mechanism with evidence and stereochemical features of different rearrangement reactions.  The course is also attached with two very important topics: synthesis and spectroscopy, which are very important for future research work.
	C10P	Organic Chemistry-IV Practical (Quantitative estimation)	From this course students acquire the capacity of quantitative estimation of different organic compounds, i.e. glycine, glucose, fructose, vitamin-C, aminesetc.

## **SEM-IV (Continued)**

Course ID	Course ID (T/P)	Course Title & Description	Course Outcomes
SEC2	SEC2T	Analytical Chemistry Analytical Chemistry Theory Analysis of soil, water, food products, cosmetics, chromatography).	The students will be able to analyse soil, water, food products, cosmeticsetc. Students should be familiar with chromatographic technique for analytical work.
	SEC2P	Analytical Chemistry Practical	By doing the practical, students will learn the procedure for the determination of pH of water and soil, dissolved oxygen in water, ion exchange capacity of resin and identification of adulterants in some common foods.
GE4	GE4T	GE4T	This course deals with the study of  i) Colligative properties of solution.  ii) Phase equilibria in heterogeneous system.  iii) Electrochemical cells and conductive properties of chemical in cells

SEM-V

Course ID	Course ID (T/P)	Course Title & Description	Course Outcomes	
CC11	C11 T	Inorganic Chemistry-IV Theory (Coordination chemistry –II lanthanides and actinides)	From this course student will be able to learn regarding crystal field theory, splitting of d-electrons, crystal field stabilisation energy for different geometry, Jahn-Teller distortion, magnetism and colour complex, L-S coupling Orgel diagram, charge transfer spectra, and chemistry of lanthanides and actinides.	
	C11P	Inorganic Chemistry-IV Practical	Practical portion is related to  i) Chromatographic analysis of metal ions.  ii) Gravimetric analysis of Ni, Cu, Al, Cl <sup>-</sup> iii) Spectrophotometry	
	C12T	Organic Chemistry-V Theory (Carbohydrates, biomolecules, pericyclic reactions)	This course should provide students with sufficient understanding on:  i) Polynuclear hydrocarbons and their derivatives ii) Heterocyclic compounds related synthesis iii) Stereochemistry of alicyclic compounds iv) Pericyclic reactions v) Biomolecules like amino acids, peptides, DNA, RNAetc	
	C12P	Organic Chemistry-V Practical (Chromatography and spectroscopy)	This portion is very important for present research work in organic chemistry.	
	DSE-1 T	Advance Physical Chemistry Theory (Crystallography, statistical thermodynamics, polymer)	Upon successful completion of this course, students will be able to understand:  i) The different geometry of lattice, lattice symmetry, heat capacity of solid, Einstein's model, Debye's model, x-ray analysis on crystal lattice  ii) Phase space, ensembles probability, statistical weight, partition function, representation of thermodynamic properties by partition function, Maxwell-Boltzmann statistics, Bose- Einstein's statistics, Fermi-Dirac statisticsetc.	
	DSE-1 P	Advance Physical Chemistry Practical	This Portion is related with computational programming analysis, which gives a firm foundation for theoretical research specially in Physical Chemistry	
	DSE-2 T	Analytical Methods in Chemistry Theory	From this course students can learn about UV-visible spectroscopy, IR- spectroscopy, Flame atomic absorption and Emission spectroscopy, basic principles of quantitative analysis, theory of chromatography with basic principles of instrumentation.  Separation techniques are associated with solvent extraction, chromatography, mechanism of separation, development of chromatograms, and role of computer.	
	DSE-2 P	Analytical Methods in Chemistry: Practical	Students can learn practically about TLC, paper chromatography, column chromatography, solvent extraction technique, and spectroscopic analysis using UV and IR-spectra.	

## SEM-VI

Course ID	Course ID (T/P)	Course Title & Description	Course Outcomes
CC13	C13T	Inorganic Chemistry-V Theory (Bioinorganic chemistry and organometallic chemistry)	This course is related with basic chemical reactions in the biological system and the role of metal ions, oxygen management proteins, electrons management proteins, nitrogen fixation, photosynthesis and chemistry of organometallic compounds.
	C13P	Inorganic Chemistry-V Practical	It involves qualitative semi micro analysis of acid and basic radicals in a sample and to assign the most probable composition.
CC14	C14T	Physical Chemistry-V Theory (Molecular spectroscopy, photochemistry, surface phenomenon)	This course is aimed to provide the student with a solid understanding of rotational spectroscopy, vibrational spectroscopy, Raman spectroscopy, NMR and ESR spectroscopy, photochemistry, Surface phenomenon are associated with surface tension, adsorptions and colloids.
	C14P	Physical Chemistry-V Practical	The students will be able to determine surface tension of a liquid, critical micelle concentration, pH of unknown buffer spectrophotometrically.
	DSE3T	Industrial Importance Theory	Students can get the solid knowledge on glass, ceramics, cements, fertilizers, batteries, alloys, chemistry of nano materials and chemical explosives
DSE3	DSE3P	Industrial Importance Practical	Students will be able to:  i) Determine free acidity in fertilizers ii) Estimate phosphoric acid in phosphor fertilizers. iii) Determine the composition in Dolomite. iv) Analyse cement and % Fe present. v) Prepare pigments
	DSE4T	Polymer Chemistry Theory	Course is related with i) kinetics, ii) crystallization, iii) nature, iv) molecular weight determination, v) properties of polymers
DSE4	DSE4P	Polymer Chemistry Practical	Students can learn the synthesis of different polymers, determination of molecular weight by viscosity method, mechanical properties of polymersetc.

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF MATHEMATICS HONOURS PROGRAMME

## **Program Specific Outcomes**

Of

## The students graduating with the Degree B.Sc. (Honours) in Mathematics and those studying GE Courses in Mathematics

On completion of the B.Sc. (Honours) in Mathematics students will be expected to:

- i. Build a solid foundation in mathematics for higher studies by developing an understanding of mathematical problems and approaches through its concepts, theories and applications.
- ii. Achieve analytical reasoning and computational skills that can be utilised in modelling and solving real life problems.
- iii. Attain plenty of practice with essential methods and tools, and increase their familiarity with programming language C++ and Computer Algebra Systems (CAS) softwares such as MATLAB by hand on sessions in Computer lab.
- iv. Identify applications of mathematics in other disciplines and in the real-world, leading to enhancement of career prospects in the fields of research.
- v. Improve the quality of mathematical knowledge in our society. Because mathematics has wide ranging applications in engineering, technology and a host of other disciplines.
- vi. Develop a wide range of generic skills and knowledge which will enhance their employability for government jobs as well as in various other private enterprises along with teaching profession in primary and secondary schools.

## Department of Mathematics Course Outcomes SEMESTER-I

Course ID	Course Type & Title of the Course	Outcomes
CC-1/ C1T	Course Type: Core Course  Calculus, Geometry & Differential Equation	<ul> <li>i. Learn rule of higher order ordinary derivatives and its applications.</li> <li>ii. Gain ideas of tracing curves in Cartesian and polar coordinate systems.</li> <li>iii. Understand L'Hospital's rule and its applications in business, economics and life sciences.</li> <li>iv. Learn about Reduction formula and its uses. Parameterizing a curve, area and volume of surface of revolution.</li> <li>v. Study the properties of three dimensional shapes. Generating lines of central conicoids.</li> <li>vi. Understand the genesis of ordinary differential equations, and obtain their solutions utilizing the standard techniques for separable, exact, linear and Bernoulli cases.</li> <li>vii. Formulate mathematical models in the form of ordinary differential equations to find the possible solutions our daily life problems arising in physical, chemical and biological disciplines.</li> <li>viii. Plot graphs of various functions: exponential, logarithmic, trigonometric, inverse etc. And sketch parametric curves using software like MATLAB.</li> </ul>
CC-2/ C2T	Course Type: Core Course Algebra	<ul> <li>i. Develop knowledge on polar representation of complex numbers, employ De Moivre's theorem.</li> <li>ii. Understand the importance of relation between Roots and Coefficients of the equations and learn various methods of obtaining roots.</li> <li>iii. Learn Inequalities including Cauchy-Schwarz's inequality.</li> <li>iv. Get familiarize with equivalence relations and partitions, composition of functions.</li> <li>v. Apply Euclid's algorithm to find greatest common divisor, employ principle of mathematical induction and its applications.</li> <li>vi. Gain knowledge in modular arithmetic, congruence relation and its applications to our daily life problems.</li> <li>vii. Recognize consistent and inconsistent systems of linear equations by the row echelon form of the augmented matrix using rank and its applications to geometry.</li> <li>viii. Introduce with the properties of linear transformations, and finding eigenvalues, eigenvectors for a square matrix.</li> </ul>

## Department of Mathematics Course Outcomes (Continued) SEMESTER-I (Continued)

Course ID	Course Type & Title of the Course	Outcomes
GE-1/ GE1T	Course Type: Generic Elective  Calculus, Geometry & Differential Equation	<ul> <li>Generic Elective is an inter-disciplinary subject that is offered to the students of other disciplines like physics, chemistry, economics, etc.</li> <li>This course will enable the students to:  i. Strengthen their knowledge in mathematics in order to apply mathematical methods in their course of study and also to pursue with higher studies.</li> <li>ii. Learn rule of higher order ordinary derivatives and its applications.</li> <li>iii. Gain ideas of tracing curves in Cartesian and polar coordinate systems.</li> <li>iv. Understand L'Hospital's rule and its applications in business, economics and life sciences.</li> <li>v. Learn about Reduction formula and its uses. Parameterizing a curve, area and volume of surface of revolution.</li> <li>vi. Study the properties of three dimensional shapes. Generating lines of central conicoids.</li> <li>vii. Understand the genesis of ordinary differential equations, and obtain their solutions utilizing the standard techniques for separable, exact, linear and Bernoulli cases.</li> <li>viii. Formulate mathematical models in the form of ordinary differential equations to find the possible solutions our daily life problems arising in physical, chemical and biological disciplines.</li> <li>ix. Plot graphs of various functions: exponential, logarithmic, trigonometric, inverse etc. And sketch parametric curves using software like MATLAB.</li> </ul>

## Department of Mathematics Course Outcomes (Continued) SEMESTER-II

Course ID	Course Type & Title of the Course	Outcomes
CC -3/ C3T	Course Type: Core Course Real Analysis	<ul> <li>i. Understand basic properties of real number system such as suprema and infima, completeness, and order property.</li> <li>ii. Learn about limit point of a set with open and closed sets, also compact sets with related theorem.</li> <li>iii. Get familiarised with the notions of limit of a sequence and convergence of a infinite series of real numbers.</li> <li>iv. Recognize bounded, convergent, divergent, Cauchy and monotonic sequences and to calculate their limit superior, limit inferior, and the limit of a bounded sequence.</li> <li>v. Apply various tests to determine convergence and absolute convergence of an infinite series of real numbers.</li> <li>vi. Have knowledge on graphical demonstration of sequences and infinite series along with their convergence with the help of mathematical software.</li> </ul>
CC-4 / C4T	Course Type: Core Course  Differential Equations & Vector Calculus	<ul> <li>i. Know general solution of homogeneous equation of second order, Principle of superposition for a homogeneous equation, Wronskian, its properties and applications.</li> <li>ii. Solve Linear homogeneous and non-homogeneous equations of higher order with constant coefficients; Euler's equation.</li> <li>iii. Method of undetermined coefficients, Method of variation of parameters.</li> <li>iv. Grasp the concept and types of system of linear differential equations and an operator method for such systems with constant coefficients.</li> <li>v. Learn about equilibrium points, interpretation of the phase plane, also Power series solution method.</li> <li>vi. Explain the concept of vector functions and their graphs, operations with vector functions, Limits and continuity of vector functions, and its differentiation and integration.</li> <li>vii. Have knowledge with plotting of family of curves as solutions of 2<sup>nd</sup> and 3<sup>rd</sup> order differential equations through graphical demonstration.</li> </ul>

## Department of Mathematics Course Outcomes (Continued) SEMESTER-II (Continued)

Course ID	Course Type & Title of the Course	Outcomes
GE-2/ GE2T	Course Type: Generic Elective Algebra	<ol> <li>i. Develop knowledge on polar representation of complex numbers, employ De Moivre's theorem.</li> <li>ii. Understand the importance of relation between Roots and Coefficients of the equations and learn various methods of obtaining roots.</li> <li>iii. Learn Inequalities including Cauchy-Schwarz's inequality.</li> <li>iv. Get familiarize with equivalence relations and partitions, composition of functions.</li> <li>v. Apply Euclid's algorithm to find greatest common divisor, employ principle of mathematical induction and its applications.</li> <li>vi. Gain knowledge in modular arithmetic, congruence relation and its applications to our daily life problems.</li> <li>vii. Recognize consistent and inconsistent systems of linear equations by the row echelon form of the augmented matrix using rank and its applications to geometry.</li> <li>viii. Introduce with the properties of linear transformations, and finding eigenvalues, eigenvectors for a square matrix.</li> </ol>

## Department of Mathematics Course Outcomes (Continued) SEMESTER-III

Course ID	Course Type & Title of the Course	Outcomes
CC-5 / C5T	Course Type: Core Course  Theory of Real Functions & Introduction to Metric Space	<ol> <li>This course will enable the students to:         <ol> <li>Have a rigorous understanding of the concept of limit of a function.</li> <li>Know geometrical properties of continuous functions on an interval.</li> <li>Examine the uniform continuity and differentiability of a function.</li> <li>Understand the consequences of various mean value theorems for differentiable functions.</li> <li>Use the applications of mean value theorem and Taylor's theorem to inequalities and approximation of polynomials.</li> <li>Understand several standard concepts of metric spaces and their properties like openness, closedness, subspaces and separable spaces.</li> </ol> </li> </ol>
CC-6 / C6T	Course Type: Core Course  Group Theory-I	<ol> <li>i. Recognize the mathematical objects that are called groups, and classify them as abelian, cyclic and permutation groups, etc.</li> <li>ii. Link the fundamental concepts of groups and symmetries of geometrical objects.</li> <li>iii. Determine the subgroups of cyclic groups.</li> <li>iv. Explain the significance of the notions of cosets, normal subgroups, and factor groups.</li> <li>v. Analyse consequences of Lagrange's theorem.</li> <li>vi. Learn about structure preserving maps between groups and their consequences.</li> </ol>

## Department of Mathematics Course Outcomes (Continued) SEMESTER-III (Continued)

SEMESTER-III (Conunued)				
Course ID	Course Type & Title of the Course	Outcomes		
CC-7 / C7T	Course Type: Core Course  Numerical Methods	<ol> <li>i. Learn some numerical methods to find the zeroes of nonlinear functions of a single variable and solution of a system of linear equations, up to a certain given level of precision.</li> <li>ii. Use Interpolation techniques to compute the values for a tabulated function at points not in the table.</li> <li>iii. Apply numerical differentiation and integration to convert differential equations into difference equations for numerical solutions.</li> <li>iv. Solve algebraic and transcendental equation using an appropriate numerical method arising in various engineering problems.</li> <li>v. Approximate a function using an appropriate numerical method in various problems.</li> <li>vi. Evaluate derivative at a value using an appropriate numerical method in various problems.</li> <li>vii. Solve initial and boundary value problems in differential equations using numerical methods.</li> </ol>		
CC7/ C7P	Course Type: Core Course  Numerical Methods Lab	<ul> <li>i. Understand a geometrical visualisation and to obtain numerical solutions of mathematical problems, C++ programming language and Computer Algebra Systems (CAS) like MATLAB are used in practical sessions.</li> <li>ii. Have vital insights into mathematical concepts and to know limitations of numerical computations of various numerical methods described in the paper- C7T.</li> <li>iii. Find numerical solutions of system of linear equations and check the accuracy of the solutions.</li> <li>iv. Learn the simulation of mathematical models arising in real life problems.</li> </ul>		
SEC-1/ SEC1T	Course Type: Skill Enhancement Course  Object Oriented Programming in C++	<ul> <li>Skill enhancement Courses enable the students to acquire the skill relevant to the main subject keeping in view the theme of integrating mathematical and professional skills.</li> <li>This course will enable the students to:         <ol> <li>Understand and apply the Object Oriented Programming concepts of C++ for solving mathematical problems.</li> <li>Differentiate with C and C++.</li> <li>Learn Objects, Classes, Template class in C++, data abstraction, overloading etc.</li> <li>Use the skills and knowledge for their enhanced career opportunities in industry, commerce, education, finance and research.</li> </ol> </li> </ul>		

## Department of Mathematics Course Outcomes (Continued) SEMESTER-IV

Course ID	Course Type & Title of the Course	Outcomes		
CC-8 / C8T	Course Type: Core Course  Riemann Integration and Series of Functions	<ul> <li>i. Learn the properties of Riemann integrable functions, and the applications of the fundamental theorems of integration.</li> <li>ii. Study sequence and series of functions with their convergence, Cauchy's criterion and Weierstrass M-Test for uniform convergence.</li> <li>iii. Understand improper integrals with Beta and Gamma functions and their properties.</li> <li>iv. Represent Fourier series as an infinite trigonometrical series of a periodic function which may have points of discontinuity with conditions of its convergence, examples and applications.</li> <li>v. Analyze conditions for term-by-term integration and differentiation with infinite sum, and approximation of transcendental functions in terms of power series.</li> </ul>		
CC-9 / C9T	Course Type: Core Course  Multivariate Calculus	<ul> <li>i. Learn properties and rule for conceptual variations while advancing from one variable to several variables in calculus.</li> <li>ii. Connect Inter-relationship amongst the line integral, double and triple integral formulations by change of variables.</li> <li>iii. Apply multivariate calculus tools in physics, economics, constrained optimization problems.</li> <li>iv. Define vector field and its conservative property and to calculate directional derivatives and gradients.</li> <li>v. Apply gradient to solve problems involving normal vectors to level surfaces.</li> <li>vi. Utilise Line integrals to the problem of Mechanics.</li> <li>vii. Realize importance of Green, Gauss and Stokes' theorems in other branches of mathematics.</li> </ul>		
CC-10 / C10T	Course Type: Core Course  Ring Theory and Linear Algebra I	<ul> <li>The course will enable the students to learn about:</li> <li>i. The fundamental concept of Rings, Fields, subrings, integral domains ideals, factor ring, and the corresponding morphisms.</li> <li>ii. The concept of linear independence of vectors over a field, the idea of a finite dimensional vector space, subspaces, basis of a vector space and the dimension of a vector space.</li> <li>iii. Recapitulation of linear transformations, the Rank-Nullity theorem, algebra of transformations, invertibility, isomorphisms, and the change of basis.</li> </ul>		
SEC-2 / SEC 2T	Course Type: Skill Enhancement Course Graph Theory	<ul> <li>This course will enable the students to:</li> <li>i. Learn about basic properties of different kind of graphs.</li> <li>ii. Represent graph by matrix, tree and their properties.</li> <li>iii. Assimilate various graph theoretic concepts and familiarize with their applications in real life situations through study of shortest path algorithms.</li> </ul>		

## Department of Mathematics Course Outcomes (Continued) SEMESTER-V

	SENIESTER-V			
Course ID	Course Type & Title of the Course	Outcomes		
		This course will enable the students to:		
	Course Type: Core Course	<ul> <li>i. Formulate, classify and transform partial differential equations into canonical form.</li> <li>ii. Apply a range of techniques to solve first and second order partial differential equations.</li> </ul>		
CC11 /	Partial	differential equations.  iii. Model physical phenomena using partial differential equations such as		
C11T	Differential	the heat and wave equations.		
	Equations &	iv. Deal with the kinematics and kinetics of the rectilinear and planar		
	Applications	motions of a particle including the constrained oscillatory motions of		
	пррисистона	particles.		
		v. Learn about motion of particle in different curves under central forces and the Kepler's laws of the planetary motions.		
	Course Type:	The course shall enable students to learn about:		
CC12 /	Core Course	i. Automorphisms for constructing new groups from the given group.		
C12T		ii. Properties of External and internal direct products and their applications.		
		iii. Basic concepts of group actions and their applications.		
	Group	iv. Representation and use of the Sylow's theorems that characterize certain		
	Theory II	finite groups and test for non-simplicity.		
		• Choices from Discipline Specific Electives provide the student with		
	Course Type:	liberty of exploring his interests within the main subject.		
	Discipline	This course will enable the students to:		
	Specific	i. Find graphical solution of linear programming problems with two		
DSE1/	Elective	variables, and illustrate the concept of convex set and extreme points.		
DSE17		ii. Analyze and solve linear programming models of real life situations		
BULLI		using simplex method.		
	Linear	iii. Learn the relationships between the primal and dual problems and their solutions with applications to transportation, assignment.		
	Programming	iv. Apply techniques to solve transportation and assignment problems.		
		v. Solve two-person zero sum game problems.		
		vi. Enhance their career opportunities for entry in higher education and		
		research program.		
		This course will enable the students to:		
		i. Understand the basic concepts of probability.		
	Course Type:	ii. Appreciate the importance of various probability distributions of		
	Discipline	random variables and to know the notion of central tendency.		
	Specific	iii. Establish the joint distribution of two random variables in terms their		
DSE2/	Elective	correlation and linear regression.  iv. Understand central limit theorem, which establish the remarkable fact		
DSE2T		that the empirical frequencies of so many natural populations,		
		exhibit a bell shaped curve.		
	Probability	v. Learn random sampling distributions, Estimation of parameters, Testing		
	and Statistics	of hypothesis.		
		vi. Apply statistical data and techniques to solve a variety of problems into		
		diversified spheres of life – social as well as physical – such as biology,		
		economics, business management, psychology, education, etc.		

## Department of Mathematics Course Outcomes (Continued) SEMESTER-VI

Course	Course Type	Outcomes
ID	& Title	Outcomes
CC-13 / C13T	Course Type: Core Course  Metric Spaces and Complex Analysis	<ul> <li>i. Understand concepts of sequence in metric spaces and its completeness.</li> <li>ii. Identify the continuity of a function defined on metric spaces, connectedness, compactness, Heine-Borel property.</li> <li>iii. Learn homeomorphisms, Banach fixed point theorem and its application to ODE.</li> <li>iv. Visualize complex numbers as points of R², stereographic projection of complex plane on the Riemann sphere.</li> <li>v. Understand the significance of differentiability and analyticity of complex functions leading to the Cauchy-Riemann equations.</li> <li>vi. Learn the role of Cauchy-Goursat theorem and Cauchy integral formula in evaluation of contour integrals.</li> <li>vii. Expand some simple functions as their Taylor and Laurent series; classify the nature of singularities, poles and residues and application of Cauchy Residue theorem.</li> <li>viii. Understand the uniform convergence, term by term integration and differentiation of a power series.</li> </ul>
CC-14 / C14T	Course Type: Core Course  Ring Theory and Linear Algebra II	<ul> <li>On completion of this course, the student will be able to:</li> <li>i. Understand in detail about polynomial rings, Irreducible polynomial and irreducibility tests.</li> <li>ii. Learn divisibility in integral domains, the significance of unique factorization in rings and integral domains. Principal ideal domains and properties of Euclidean domains.</li> <li>iii. Find dual spaces and basis of linear transformation matrix, eigen spaces, diagonalizability, and canonical forms.</li> <li>iv. Compute inner products and determine orthogonality on vector spaces, including Gram-Schmidt orthogonalization to obtain orthonormal basis.</li> <li>v. Realise importance of adjoint of a linear operator, orthogonal projections and spectral theorem.</li> </ul>

## Department of Mathematics Course Outcomes (Continued) SEMESTER-VI (Continued)

DSE-3 / DSE3T	Course Type: Discipline Specific Elective Mechanics	<ul> <li>i. Understand the significance of mathematics involved in various concepts of physical quantities and the related effects on different bodies. It emphasizes knowledge building for applying mathematics in physical world.</li> <li>ii. Understand the equilibrium of particles acted upon by various forces and learn the principle of virtual work for a system of coplanar forces acting on a rigid body.</li> <li>iii. Determine the centre of gravity of some materialistic systems, equilibrium of a freely hanging uniform cable.</li> <li>iv. Deal with the kinematics and kinetics of the rectilinear and planar motions of a particle including the constrained oscillatory motions of particles in resisting medium.</li> <li>v. Analyze stability of orbits and motion of artificial satellites. Also to find the motion of a particle in three dimensions.</li> <li>vi. Find the general equation of motion, to learn about compound pendulum, D'Alembert's Principle and its applications.</li> </ul>
DSE4 / DSE4T	Course Type: Discipline Specific Elective  Mathematical Modelling	<ol> <li>Learn about piecewise continuous functions, Dirac delta function, Laplace transforms and its properties. Solve Bessel's equation, Legendre's equation using power series solution technique.</li> <li>Solve ordinary differential equations using Laplace transforms.</li> <li>To provide Monte Carlo simulation modelling real world situations related to engineering systems development.</li> <li>To able Generate random numbers and random varieties using different techniques.</li> <li>To provide the knowledge of queuing theory to solve real life problem.</li> <li>Overview of optimization modelling and different linear programming models.</li> </ol>

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF GEOGRAPHY HONOURS PROGRAMME

## **Program Specific Outcomes**

Of

## The students graduating with the Degree B.Sc. (Honours) in Geography and those studying GE Courses in Geography

Learning objectives of Geography is to Correlate Natural Environment with Humans in terms of activities, livelihood, diversity and spatiality. Generally, Students of Geography Honours acquire fundamental and comprehensive knowledge about the physical geographical diversity, natural resources, environment, potential of agricultural and industrial development, interrelations of natural environment with social, cultural phenomena etc. of different parts of the world in general and especially of the different states and regions of the country. They will achieve the ability of exploring natural, environmental, agricultural, industrial and commercial resources and also human resources and proper, sustainable utilization and possibility of future development. Using of Geospatial Knowledge and Technology they will be able to construct Decision support system to improve Holistic Environment. Besides, acquiring the ability to enter in to higher education and research in a variety of related disciplines they also acquire employability in education sector, various public and Private planning agencies, industrial sectors, environmental management bodies, geographical and geological surveying agencies etc.

# Department of Geography Programme: B.Sc. Honours in Geography Course Outcomes

## SEM-I & II

SEM	Course ID	Course Tithe	Outcomes	
	<u>CC1</u>	CT1 Geotectonic and Geomorphology CC1	In the very first classes of Geography, students will be informed about the processes of earth formation, Geological Time Scale for measuring the ages of earth, and related theories for insight about formation of earth's important features. Not only internal forces, external forces and its consequences are also to be studied.	
		CP1 Cartographic Techniques	Map as tool of Geography, helps student to grasp spatial ideas more precisely. Basic knowledge about Cartesian Coordinate system and Grids, Bearing and Map Projection are taught for understanding more complex part in next and later Semesters.	
I	CC2	CT2 Cartographic Techniques- Practical	To understand map more intuitively, detail knowledge about drawing/Calculating scale and Map Projections is required. Students will learn to draw Map Projections along with topographical Map interpretation for enhancing analytical approach in the domain of Geography.	
	GE1	GE-1T Disaster Management	Hazard, risk and vulnerability concept will be included associated with causes, consequences, mapping, impact are the key points to learn by the students. In the field of management, response, mitigation, policies of hazard in pre, peri and post phase of hazard are to be digested by the students.	
	ССЗ	CT3 Human Geography	The niche of Human Geography will be taught here including approaches, Nature, Scope and Element followed by several theories that satisfactorily explained out of different geographical phenomena. Morphology and Processes of Urban and Rural settlement also counts here.	
II			CT4 Cartograms and Thematic Mapping	Maps as a tool with advanced scheme will be taught here. Students will learn Several Visualization techniques of quantitative data like Bar, Pie diagram along with theme based mapping also will have been introduced here for first in the whole course.
	CC4	CP4 Cartograms and Thematic Mapping - Practical	After getting into theoretical theme based mapping, students will learn to prepare map on their own, mimicking real world scenario. A new approach to measurement of distance and angle in real world surveying will learn by students using Prismatic Compass and Dumpy Level.	
	GE2	GE-2T Geospatial Technology	Practical use of geospatial technology in different sector with minute knowledge about projection, data types, satellite system, image pre and post processing and GNSS system are the keypoint to be learnt by students.	

# Department of Geography Programme: B.Sc. Honours in Geography Course Outcomes (Continued)

## SEM-III & IV

SEM	Course ID	Course Tithe	Outcomes	
	CC5	CT5 Climatology	Climatic Processes and Phenomena will be taught here with minute detail unlike they already taught in higher secondary. Several modern Climatic Classification approaches also has been included for better understanding of regional micro climate.	
	CC6	CC6	CT6 Statistical Methods in Geography	Students will learn about fundamental concepts, terminologies, theories of Statistics as primary concern. Introduction to Descriptive Statistics including Central Tendency, dispersion, association and correlation followed by regression will be taken as fair to follow for first confrontation to Statistics.
III		CP6 Stat. Mtd. Practical	Students will learn to use statistics on their own through a short project under the supervision of faculty members.	
	CC7	CT7 Geography of India	Students will be familiar about regional geography of India in different physiographic and social spectrum.	
	SEC1	Coastal Management	On Coastal Part, students have to study about Convention of Coastal terminology and division, forming processes, physiographic properties, effect and consequences on both physical environment and human induced landscape. Several policies regarding coastal management also have to be grasped by the learner.	
	CC8	CT8 Regional Planning and Development	Introduction, approaches and strategies of Regional Planning will be taught here with special reference to India. Along with, several significant theories for Planning is also included for enhancing problem solving and analytical approach of students through studying of planning based strategies for neutralizing regional imbalances.	
IV	CC9	CT9 Economic Geography	In this paper, economic processes, activities, approaches to Geography will be discussed followed by regional resources that have the potentiality to generate economic revenue are also included. International organizations of economic agreements also have to study by the students.	
	CC 10		CT10 Environmental Geography	Perception, approach, strategies of retaining environment is generally taught here. Students also learn from simple eco –system to complex urban –environmental issues as an integral part of study. Through completion of project, students will learn to analyze environment related data on their own. They also learn to test pH and NPK for better understanding of local environment. They also experience to use real world pollution data for analysis.
		CP10 Env. Geo. Practical	Methodology of research including data collection, data analysis procedure will be taught here. Along with that students will learn about writing of reports as per convention.	
	SEC-2	Research Methods /Advanced Spatial Statistical Techniques	For Statistical Technique, as it is optional, students may opt, and they have to deal with advanced statistical theories like sampling, probability distributions and bivariate regression and time series with minute details.	

# Department of Geography Programme: B.Sc. Honours in Geography Course Outcomes (Continued) SEM-V

SEM	Course ID	Course Tithe	Outcomes
	CC11	CT11 Field Work and Research Methodology	Fundamentals of Research Methodology will be taught here along with procedure of Literature Review and process of setting up research problem. Apart from that they will also learn about report writing according to convention. More the processes of fieldwork related teaching will also have done here including questionnaire making, data collection, field techniques policies etc.
		CP11 Field Work and Research Methodology – Practical	An Individual project work have to be completed by the students under the supervision of concerned faculty member. They learn to complete the whole process on their own.
	CC12	CT12 Remote Sensing and GIS	Basic remote sensing process, data collection, data preprocessing, enhancement and map making will be learnt by the students. Ancillary instruments like GPS also taking a part in terms of mechanism, use and calculation within the curriculum.
V		CP12 Remote Sensing and GIS – Lab	On the practical part, students will learn to collect, preprocess, analyze and enhance the satellite images and preparing final map on their own under guidance of instructor using computer system.
	DSE1	Hydrology and Oceanography/ Cultural and Settlement Geography	Students will learn about hydrological processes including Ground Water formation, mechanism, movement and in Oceanographic Processes, physical chemical properties, movement, resources.
	DSE2	Social Geography/Res ource Geography	In Cultural and Settlement Geography, the scope of learning is about processes of cultural diffusion, segregation, cultural diversity within regional scale with special emphasis on Race and Racial groups. On Settlement part, Morphology, nature, characteristics of rural and urban settlement is an important part to grasp for the students.  Social Geography has a scope to learn in the specific domain of Social processes, stratification, differentiation along with special emphasis on Social groups, Race, Caste and Class. Social wellbeing, social tension, Social Inclusion and exclusion also has broad spectrum to learn.  Utilization and Sustainability of resources along with its Significance, appraisal and conservation, distribution, policies, limits and management to it has a broader scope to learn in Resource Geography.

# Department of Geography Programme: B.Sc. Honours in Geography Course Outcomes (Continued) SEM-VI

SEM	Course ID	Course Tithe	Outcomes
	CC13	CT13 Evolution of Geographical Thought	The history of Geography, different philosophies, paradigms and contribution of geographers are the main spectrum for learning to the students.
VI	CC14	CT14 Disaster Management	Disaster and its approaches, properties, paradigms, perception, responses, mapping, factors, consequences and its management is the main thing to grasp for the students.
		CP14 Disaster Management – Project Work	On project work, students will learn to collection of data related to hazard and quantitative and qualitative analysis by themselves with the supervision of faculties.
	DSE3	Population Geography/Soil and Bio- Geography	Population distribution, composition, properties, Characteristics, policies and issues have the scope to learn for the students.  Students will learn about formation processes, Profile identification, physical and chemical properties, and issues of soil along with biographical properties.
	DSE4	Agricultural Geography/Urb an Geography	In Agricultural Geography, cropping pattern, agricultural productivity, irrigation and food security, classification and globalization are the important thing to grasp for the students.  The Processes, issues, patterns, trends of Urban Settlement and its policies and associated theories are to be learnt by the students.

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF ECONOMICS HONOURS PROGRAMME

## **Program Specific Outcomes**

## On successful completion of B.Sc (Honours) in Economics program, the students are expected to achieve:

- **PSO1– Knowledge of Economics:** The student understands the basic concepts in Economics and can apply them in the real world. He/she is also updated with the recent trends in the subject.
- **PSO2 Problem Analysis:** Acquire knowledge of mathematical, statistical, computing and domain knowledge for developing applications for defined economic problems. Identify and formulate the problem to be solved and present them in a form that can be solved efficiently using different economic theory.
- **PSO3 Research Activity:** Apply research-based knowledge and methodologies to analyze, design and interpret data using the right tools, to provide sound conclusions. The student also builds a sound base for research in Economics and related fields.
- **PSO4– Social Responsibility:** Understand responsibilities and consequences based on societal, political, environmental, health, education and overall economical issues within local and global contexts.
- **PSO5** Entrepreneurship development: Find out the right concepts, opportunity for entrepreneurship development and create and add value for the betterment of an individual and society at large.
- **PSO6 Project Management and Finance:** Demonstrate knowledge and understanding of applied economics; apply them in resource management and financial institutions.

### **PSO7 – Opportunity Spectrum:**

- B.Sc. in Economics
- ➤ M.Sc M.Phil/Ph.D Jobs in School/College/University/Research Organisation
- ➤ MBA Jobs in Govt./ PSU/IT Sector/ Private Organisation
- Competitive Examinations Jobs in Govt./ PSU/Private Organisation

## **Department of Economics**

## **Course Outcomes**

## SEM-I & II

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC1	C1T: Introductory Microeconomics	After the completion of this paper the students are able to understand introductory microeconomic theory, solve basic microeconomic problems, and use these techniques to think about a number of policy questions relevant to the operation of the real economy.
I	CC2	C2T: Mathematical Methods in Economics-I	This paper provides the basic mathematical tools which are applied in other papers of the Honours and Master degree level. This methods also used by economists in academics, research and industry. Learning outcomes include the facility to express economic ideas using mathematics, and expertise in analyzing economic models using mathematical methods.
	GE1	GE 1T: Introductory Microeconomics	The purpose of this paper is to familiarize students with the basic concepts of microeconomics, such as, demand and supply, consumer equilibrium, firm's equilibrium, cost theory, and different market structures. Knowledge of these concepts helps students understand the theoretical mechanisms behind the working of markets.
П	CC3	C3 T : Introductory Macroeconomics	This paper provides an overview of macroeconomic issues, such as determination of national income, output, employment, inflation, interest rate and more. The role of monetary and fiscal policy is also discussed. Also, this paper enables students to appreciate the workings of real and money markets and the nature of equilibrium in each market. This paper introduces the concepts if aggregate demand and aggregate supply and the implications of any changes in monetary, fiscal policies, and adverse economic shocks on output and price level.
	CC4	C4 T: Mathematical Methods in Economics-II	This paper is a progression from the Mathematical Methods for Economics-I paper and aims to develop understanding and skill in the application of mathematical theorems and techniques to economic theory and applications. Topics include linear algebra, functions of several real variables, multivariable optimization, and differential equations. Learning outcomes include capability to formulate static and dynamic theoretical models and solving applications in economics, as in production and consumption theory, macroeconomic modeling, and financial economics amongst others.
	GE2	GE2T: Introductory Macroeconomics	This paper includes topics such as introduction to macroeconomics and national income accounting, money, inflation, and the closed economy in the short run. It helps students address public policy issues related to economy level concepts such as investment, GDP, and balance of payments.

## **SEM-III**

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC5	C5T: Intermediate Microeconomics – I	This paper broadly includes consumer theory, production theory, cost theory and perfect competition in higher level. Thus, this paper covers the essential concepts required for understanding other broad areas of economics. Therefore, the scope of the paper includes high education in economics or management, teaching and research work in the government as well as the corporate organizations.
	CC6	C6T: Intermediate Macroeconomics – I	Macroeconomics basically deals with aggregated indicators of an economy such as GDP, national income, unemployment rate, price indices and also the interrelations among different sectors of the economy to better understand how an entire economy performs. This paper basically includes Keynesian theories of macroeconomics which study the causes of short run fluctuation (business cycle) in national income, inflation analysis, and open economy macroeconomics. It also emphasizes the role 'expectation' in wage determination and in inflationary process. The paper provides an indepth study of fiscal and monetary policies along with commodity, assets and labour markets. It is an interesting paper but there also exists a higher level of difficulty in understanding the paper. This paper provides students a strong foundation in macroeconomics so that they can easily grasp the more advanced course in macroeconomics at their post-graduate level.
III	CC7	C7T: Statistical Methods for Economics	This paper is an introductory statistical tool which prepares students in utilizing statistical techniques for quantitative, data-based problems, analysis and inference. It also develops the ability to understand econometrics courses at the Honours and Masters levels. Topics include descriptive statistics, elementary probability theory, random variables and probability distributions, random sampling and jointly distributed random variables, sampling, point and interval estimation. Learning outcomes include developing proficiency for statistical research in academics, research institutions and industry.
	SEC1	Data Analysis	As the programmes suggest and teach some skill to help them to have a command on the research based on different environment and situations.  This course is designed to help undergraduate students appreciate, learn and practice data-based research skills that will help them in writing term papers, and project reports in their discipline and general elective courses. This course gives an outline as to how to identify nature of research, formulation of research topic, review of literature, approaches to research and research strategy, research ethics, using secondary data, how to use primary data, how to use sample selection methods, analysis of data, and writing of project report, with reference to different styles.

## **Department of Economics**

# Course Outcomes (Continued) SEM-IV

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC8	CT8: Intermediate Microeconomics – II	This paper broadly covers general equilibrium theory, game theory, welfare analysis, market structures, externalities and asymmetric information. The paper provides in-depth understanding of the micro foundations required for higher education in economics and also for making policy decisions. Thus, the scope of the paper includes teaching, research work and policy decision making.
	CC9	CT9: Intermediate Macroeconomics - II	This paper aims to provide students with a solid understanding of macroeconomics at the intermediate level, and to ensure that they can apply macroeconomic analysis to the study of economic problems such as inflation, unemployment, budget deficit and many more. In this paper, the modern theories of the determination of consumption, investment, demand for money, steady state levels and growth rate of capital and income are developed and the implications of each model/ theory on alternate fiscal and monetary policy seeking to facilitate full employment, economic growth and price stability are discussed. Since macroeconomics is an empirical discipline, students are familiarized with current macroeconomic data and its relevance.
	CC10	CT10: Introductory Econometrics	This paper broadly includes review of some statistics concepts, simple regression analysis, multiple regression analysis and violation of classical assumptions. This paper provides understanding of the basics required for the empirical work which is commonly done in corporate organizations, research institutions and macroeconomic decision making. Thus, this paper has a very wide scope in all sectors of economy such as agriculture, industry, and services among others for policy making.
	SEC2	Research Methodology	Research methodology is taught as a supporting subject in several ways in many academic disciplines such as health, education, social work, marketing research, agricultural research etc. It is not only a set of skill, but also a way of thinking. This course gives an outline as to how to identify nature of research, formulation of research topic, review of literature, approaches to research and research strategy, research ethics, using secondary data, how to use primary data, how to use sample selection methods, analysis of data, and writing of project report, with reference to different styles. This skill is the gateway of higher level of research.

## SEM-V

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
V	CC11	CT11: International economics	The study of international economics is very important on the ground of open economy or liberalized economic arena. It includes classical and new theories of international trade. It familiarizes students on trade policies on the one hand and on the other hand introduces open economy macroeconomics dealing with exchange rate determination in presence of 'expectation' and different polices to maintain stability in the external front. The students take interest in studying the paper as it gives them an opportunity to understand and analyse the real-world trade related issues. They score well both in internal assessment as well as in end semester examination. In post graduate programme in Economics students find it easier to understand the advanced course in International economics having their strong foundation attained through this course.
	CC12	CT12: Public Economics	Public economics is the study of government policy from the points of view of economic efficiency and equity. The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures. The subject encompasses a host of topics including public goods, market failures and externalities. Students can easily understand the importance of Government sector in the development process of any country.
	DSE1	Economic History of India (1857-1947)	Without knowing our past we cannot understand present or cannot move forward. So, in first Discipline Specific Elective course we choose this paper. The time period mentioned in this paper is very crucial because maximum drain of wealth from India in colonial India was done with different forms. This paper studies the agriculture problems, infrastructural hardness, de industrialization etc, in the colonial India. So with our past experience students can make our better understand about the policies taken by government.
	DSE2	Money and Financial Markets	This is a paper on the economics of money, banking and financial markets. It provides coverage of economic principles that underlie the operation of banks and other financial institutions. The paper aims to provide the student with an introduction to the role of money, financial markets, financial institutions and the monetary policy in the economy, thus providing a solid foundation for further study or employment in the financial services industry. The paper establishes how monetary policy and the financial markets work in theory and practice. The main components of the course are cover the role of financial markets in the economy with a particular emphasis on bond markets and interest rate determination, the main aspects of banks and other financial institutions and the role of money, central banking and monetary policy.

### SEM-VI

			SENI-VI
SEM	Course	Course Title	Course Learning Outcome
	עוו	11116	On completion of this course, the students will be able to
VI	CC13	CT13: Indian Economy	Using appropriate analytical frameworks, this paper reviews major trends in economic indicators and policy debates in India in the post-independence period, with particular emphasis on paradigm shifts and turning points. Given the rapid changes taking place in India, the paper gives an insight into economic development which has taken place since independence, in terms of structural changes, savings and investments among other things. It also talks about demographic trends and issues, education, health and malnutrition, policies towards poverty, inequality, and unemployment. It provides information on these issues not only in terms of India, but also provides an international comparison to give a wider outlook to students. Given the rapid changes taking place in the country, the course gives an insight into macroeconomic policies and their impact, policies pursued and the performance of the agricultural sector and the industrial sector over a period of time. It also throws light on the trends and performance in the services sector in terms of its growth, productivity, diversification, competition policy, and foreign investment among other things. The purpose of the paper is to provide a more comprehensive view of the students, making them more aware about the economic activities taking place around them.
	CC14	CT14: Deve- lopment Eco- nomics	Development Economics is a vibrant paper concerned with processes of change such as social and economic, political and cultural and many major policy challenges that present the efforts to overcome poverty and insecurity, especially in the developing countries. It helps students understand the reasons for why some countries are rich and others so poor; enables them to factor out and remedy significant obstacles impeding growth in poor nations and equip them to create flourishing ground for the same. Hence, the paper provides a stable interdisciplinary social science formation and develops students' capacities for independent and critical inquiry. Set in the global backdrop in which the under-developed and developing countries coexist with the relatively more developed world, this paper in particular, begins with basic demographic concepts and their evolution during the process of development. A changing demographic structure put across the unique pattern of inputs markets and contracts in developing countries is then comprehensively studied to bring out the growth process in relation to its development attributes. These character-traits are then linked to the particular problems of enforcement experienced in these countries. With an aim of further concretizing the development process, governance of communities and organizations is premeditated and linked to the questions of sustainable development. Finally, setting the pace for sustainability, the paper ends with reflections on the role of globalization and increased international dependence on the process of development.

## **SEM-VI (Continued)**

SEM	Course II	Course Title	Course Learning Outcome On completion of this course, the students will be able to
VI	DSE3	DSE-3: Environmental Economics	This paper focuses on the problems of our natural environment through the lens of economic theories and applications. It provides economic theorems and their applications in terms of environment. It also provides warnings to the world that if we do not do anything soon about it, then we stand to lose a lot in the near future. It also suggests different ways through which sustainable development can be achieved, maintaining at least status quo in terms of environment. The purpose of the paper is to make students more aware about the problems faced by the policy makers in terms of environment and at the same time ensuring that economic growth and development does not get hampered. It encourages students to give more thought to environmental issues and try to work in the required direction to ensure that environmental problems are taken seriously and find practical and long-term solutions for them, which are not only environmentally viable, but also economically sustainable.
	DSE4	DSE-4: Project Work	This paper helps students learn the introductory research skills in writing data-based term papers, and project reports, Introduction to the nature of research, formulation of the research topic, research approaches and ethics, and types of data help increase the suitability of students for research based work in the corporate sector, government institutions and media.

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF BOTANY HONOURS PROGRAMME

#### **Program Specific Outcomes**

#### The student graduating with the Degree B.Sc. (Honours) Botany should be able to acquire

- Core competency: Students will acquire core competency in the subject Botany, and in allied subject areas.
- The student will be able to identify major groups of plants and compare the characteristics of lower (e.g. algae and fungi) and higher (angiosperms and gymnosperms) plants.
- Students will be able to use the evidence based comparative botany approach to explain the evolution of organism and understand the genetic diversity on the earth.
- The students will be able to explain various plant processes and functions, metabolism, concepts of gene, genome and how organism's function is influenced at the cell, tissue and organ level.
- > Students will be able to understand adaptation, development and behavior of different forms of life.
- > The understanding of networked life on earth and tracing the energy pyramids through nutrient flow is expected from the students.
- > Students will be able to demonstrate the experimental techniques and methods of their area of specialization in Botany.
- Analytical ability: The students will be able to demonstarte the knowledge in understanding research and addressing practical problems.
- Application of various scientific methods to address different questions by formulating the hypothesis, data collection and critically analyze
- the data to decipher the degree to which their scientific work supports their hypothesis.
- Critical Thinking and problem solving ability: An increased understanding of fundamental concepts and their applications of scientific principles is expected at the end of this course. Students will become critical thinker and acquire problem solving capabilities.
- Digitally equipped: Students will acquir digital skills and integrate the fundamental concepts with modern tools.
- Ethical and Psychological strengthening: Students will also strengthen their ethical and moral values and shall be able to deal with psychological weaknesses.
- > Team Player: Students will learn team workmanship in order to serve efficiently institutions, industry and society.
- Independent Learner: Apart from the subject specific skills, generic skills, especially in botany, the program outcome would lead to gain knowledge and skills for further higher studies, competitive examinations and employment. Learning outcomes based curriculum would ensure equal academic standards across the country and broader picture of their competencies. The Bachelor program in Botany and Botany honours may be mono-disciplinary or multidisciplinary.

G ,	Course	C 77:4	Course Learning Outcome
Semester	ID	Course Title	On completion of this course, the students will be able to
	CC1	Phycology and Microbiology	<ul> <li>Develop understanding on the concept of microbial nutrition.</li> <li>Classify viruses based on their characteristics and structures.</li> <li>Develop critical understanding of plant diseases and their remediation.</li> <li>Examine the general characteristics of bacteria and their cell reproduction/recombination.</li> <li>Increase the awareness and appreciation of human friendly viruses, bacteria, algae and their economic importance.</li> <li>Conduct experiments using skills appropriate to subdivision.</li> </ul>
I	CC2	Biomolecules and Cell Biology	<ul> <li>Develop understanding on chemical bonding among molecules.</li> <li>Identify the concept that explains chemical composition and structure of cell wall and membrane.</li> <li>Classify the enzymes and explain mechanism of action and structure.</li> <li>Compare the structure and function of cells &amp; explain the development of cells.</li> <li>Describe the relationship between the structure and function of biomolecules.</li> </ul>
	GE1	Biodiversity (Microbes, Algae, Fungi and Embryophytes)	<ul> <li>Understand the fundamental concepts related to microbes, algae, fungi and embryophytes.</li> <li>Analyze the discovery and general structure of viruses</li> <li>Examine the morphology and life-cycles of trentepohlia, ulva, kappaphycus, sargassum, turbinaria, grailaria, porphyra</li> <li>Evaluate the significance of fungi and its different types</li> <li>Analyze the anatomy and reproduction of Cycas and Pinus along with their ecological and economical importance</li> </ul>
II	CC3	Mycology and Phytopathology	<ul> <li>Identify true fungi and demonstrate the principles and application of plant pathology in the control of plant disease.</li> <li>Demonstrate skills in laboratory, field and glasshouse work related to mycology and plant pathology.</li> <li>Develop an understanding of microbes, fungi and lichens and appreciate their adaptive strategies.</li> <li>Identify the common plant diseases according to geographical locations and device control measures.</li> </ul>
	CC4	Archegoniatae: Bryophytes, Pteridophytes, Gymnosperms	<ul> <li>Demonstrate an understanding of archegoniatae, Bryophytes, Pteridophytes and Gymnosperms.</li> <li>Develop critical understanding on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms.</li> <li>Understanding of plant evolution and their transition to land habitat.</li> <li>Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Bryophytes, Pteridophytes, Gymnosperms.</li> </ul>
	GE2	Plant Ecology and Taxonomy	<ul> <li>Comprehend the basic concepts of plant ecology and taxonomy and botanical nomenclature.</li> <li>Analyze the characteristics of different plant communities.</li> <li>Examine the structure and functions of eco-system.</li> <li>Evaluate the significance of herbarium.</li> <li>Analyze the implications of biometrics, numerical taxonomy and cladistics.</li> </ul>

Semester	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC5	Anatomy of Angiosperms	<ul> <li>Develop an understanding of concepts and fundamentals of plant anatomy.</li> <li>Examine the internal anatomy of plant systems and organs.</li> <li>Develop critical understanding on the evolution of concept of organization of shoot and root apex.</li> <li>Analyze the composition of different parts of plants and their relationships.</li> <li>Evaluate the adaptive and protective systems of plants.</li> </ul>
III	CC6	Economic Botany and Plant Resource Utilization	<ul> <li>Evaluate the adaptive and protective systems of plants.</li> <li>Understand core concepts of Economic Botany and relate with environment, populations, communities, and ecosystems.</li> <li>Develop critical understanding on the evolution of concept of organization of apex new crops/varieties, importance of germplasm diversity, issues related to access and ownership.</li> <li>Develop a basic knowledge of taxonomic diversity and important families of useful plants.</li> <li>Increase the awareness and appreciation of plants &amp; plant product encountered in everyday life.</li> <li>Appreciate the diversity of plants and the plant products in human use.</li> </ul>
	CC7	Genetics and Cytogenetics	<ul> <li>Have conceptual understanding of laws of inheritance, genetic basis of loci and alleles and their linkage.</li> <li>Comprehend the effect of chromosomal abnormalities in numerical as well as structural changes leading to genetic disorders.</li> <li>Develop critical understanding of chemical basis of genes and their interactions at population and evolutionary levels.</li> <li>Analyze the effect of mutations on gene functions and dosage.</li> <li>Examine the structure, function and replication of DNA.</li> </ul>
	SEC1	Biofertilisers	<ul> <li>Develop their understanding on the concept of bio-fertilizer</li> <li>Identify the different forms of biofertilizers and their uses</li> <li>Compose the Green manuring and organic fertilizers</li> <li>Develop the integrated management for better crop production by using both nitrogenous and phosphate bio fertilizers and vesicular arbuscular mycorrhizal (VAM).</li> <li>Interpret and explain the components, patterns, and processes of bacteria for growth in crop production</li> </ul>

Semester	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC8	Molecular Biology	<ul> <li>Analyse the structures and chemical properties of DNA and RNA through various historic experiments.</li> <li>Differentiate the main types of prokaryotes through their grouping abilities and their characteristic.</li> <li>Evaluate the experiments establishing central dogma and genetic code.</li> <li>Gain an understanding of various steps in transcription, protein synthesis and protein modification.</li> </ul>
IV	CC9	Plant Ecology and Phytogeograp hy	<ul> <li>Understand core concepts of biotic and abiotic.</li> <li>Classify the soils on the basis of physical, chemical and biological components.</li> <li>Analysis the phytogeography or phytogeographical division of India.</li> <li>Evaluate energy sources of ecological system.</li> <li>Assess the adaptation of plants in relation to light, temperature, water, wind and fire.</li> <li>Conduct experiments using skills appropriate to subdivisions.</li> </ul>
	CC10	Plant Systematics	<ul> <li>Classify Plant systematics and recognize the importance of herbarium and Virtual herbarium.</li> <li>Evaluate the Important herbaria and botanical gardens.</li> <li>Interpret the rules of ICN in botanical nomenclature.</li> <li>Assess terms and concepts related to Phylogenetic Systematics.</li> <li>Generalize the characters of the families according to Bentham &amp; Hooker's system of classification.</li> </ul>
	SEC2	Mushroom Culture technology	<ul> <li>Recall various types and categories of mushrooms.</li> <li>Demonstrate various types of mushroom cultivating technologies.</li> <li>Examine various types of food technologies associated with mushroom industry.</li> <li>Value the economic factors associated with mushroom cultivation.</li> <li>Device new methods and strategies to contribute to mushroom production.</li> </ul>

Semester	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC11	Plant Physiology	<ul> <li>Understand Water relation of plants with respect to various physiological processes.</li> <li>Explain chemical properties and deficiency symptoms in plants</li> <li>Classify aerobic and anaerobic respiration.</li> <li>Explain the significance of Photosynthesis and respiration</li> <li>Assess dormancy and germination in plants.</li> </ul>
	CC12	Plant Metabolism	<ul> <li>Differentiate anabolic and catabolic pathways of metabolism.</li> <li>Recognize the importance of Carbon assimilation in photorespiration.</li> <li>Explain the ATP-Synthesis.</li> <li>Interpret the Biological nitrogen fixation in metabolism</li> </ul>
V	DSEC1	Elements of Plant Breeding	<ul> <li>Develop conceptual understanding of plant genetic resources, plant breeding, gene bank and gene pool.</li> <li>Familiarize with genetic basis of heterosis.</li> <li>Classify Sexual and Asexual modes of reproduction.</li> <li>Explain monogenic and polygenic inheritance</li> <li>Reflect upon the role of various non- conventional methods used in crop improvement.</li> </ul>
	DSEC2	Natural Resource Management	<ul> <li>Understand the concept of different natural resources and their utilization.</li> <li>Critically analyze the sustainable utilization land, water, forest and energy resources.</li> <li>Evaluate the management strategies of different natural resources.</li> <li>Reflect upon the different national and international efforts in resource management and their conservation.</li> </ul>

Semester	Course ID	Course Title	Course Learning Outcome At the end of the course the students will be able to
	CC13	Plant Metabolism	<ul> <li>Differentiate anabolic and catabolic pathways of metabolism</li> <li>Recognize the importance of Carbon assimilation in photorespiration</li> <li>Explain the ATP-Synthesis</li> <li>Interpret the Biological nitrogen fixation in metabolism</li> </ul>
	CC14	Plant Biotechnology.	<ul> <li>Know about the basic techniques of plant tissue culture</li> <li>Acquire knowledge about recombinant DNA technology &amp; gene cloning</li> <li>Learn about the different methods of gene transfer.</li> <li>Know about the practical &amp; commercial aspects of biotechnology &amp; biosafety concerns.</li> </ul>
VI	DSEC3	Industrial and Environmental Microbiology	<ul> <li>Understand the concept and role of microbes in industry and environment.</li> <li>Critically analyze the types of bioreactors and the fermentation process.</li> <li>Evaluate the role of microorganisms in industry and microbes in agriculture.</li> <li>Reflect upon different Landscaping practices and garden design.</li> <li>Develop skills on the remediation process of contaminated soils.</li> </ul>
	DSEC4	Bio-Analytical Techniques	<ul> <li>Develop conceptual understanding of cell wall degradation enzymes and cell fractionation.</li> <li>Classify different types of chromatography techniques.</li> <li>Explain the principles of Light microscopy, compound microscopy, Fluorescence microscopy and confocal microscopy.</li> <li>Apply suitable strategies in data collections and disseminating research findings.</li> </ul>

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF ZOOLOGY HONOURS PROGRAMME

#### **Program Specific Outcomes**

#### The student graduating with the Degree B.Sc. (Honours) Zoology should be able to acquire:

- Students acquire knowledge and skills in the basics of animal sciences, understands the interactions among various living organisms.
- Understand interactions among the various animals of different phyla, their distribution and their relationship with the environment.
- Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology.
- Understands the complex evolutionary processes and behaviour of animals.
- Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.
- Analyse the relationships among animals, plants and microbes.
- Correlates the physiological processes of animals and relationship of organ systems.
- Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species.
- Understands about various concepts of genetics and its importance in human health.
- Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Cell biology, Genetics, Applied Zoology, Clinical science, tools and techniques of Zoology, Toxicology, Entomology, Nematology, Sericulture, Biochemistry, Fish biology, Animal biotechnology, Immunology and research methodology.
- Gains knowledge about research methodologies, effective communication and skills of problem solving methods.
- Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties.
- Apply the knowledge and understanding of Zoology to one's own life and work.
- Develops empathy and love towards the animals
- Contributes the knowledge for Nation building.

#### **SEMESTER-I**

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC1	Non- Chordates I	<ul> <li>Came to knowing the basic concept of biosystematics and procedure in taxonomy.</li> <li>Identifying the taxonomic status of the entire non-chordates up to nematoda and discuss the evolutionary model of the groups.</li> <li>Described the general biology of few selected non-chordates useful to mankind.</li> <li>Know about some of the important and common protozoans, helminthes of parasitic nature causing diseases in human beings.</li> </ul>
I	CC2	Ecology	<ul> <li>Describe the history, introduction and nature of ecosystem.</li> <li>Understand the structure and functions of eco-system.</li> <li>Develop understanding of aquatic ecology.</li> <li>Explain the biogeocycles and laws.</li> <li>Describe population &amp; community ecology.</li> <li>Understanding the characteristics of population and population dynamics.</li> <li>A study of life history pattern, fertility rate and age structure.</li> <li>Illustration of competition and coexistence, intra-specific and inter-specific interactions, scramble and contest competition model, mutualism and commensalism, prey-predator interactions.</li> <li>Description of nature of ecosystem, production, food webs, energy flow, biogeochemical cycles, resilience of ecosystem and ecosystem management.</li> <li>Describe wild life conservation and management.</li> </ul>
	GE1	Animal Cell Biotechnology	<ul> <li>Attain knowledge about the history, branches and scope of biotechnology.</li> <li>Understood the recombinant technology, gene integration into the vector and with host genome and creation of transgenic animals.</li> <li>Gain knowledge about in-vitro fertilization and embryo transfer</li> <li>Understand the principle and applications of biotechnology techniques – DNA fingerprinting, plotting technique micro array.</li> <li>Application of the knowledge of stem cells and gene therapy.</li> </ul>

#### **SEMESTER-II**

	Course		Course Learning Outcome
SEM	ID	<b>Course Title</b>	On completion of this course, the students will be able to
	ID		
	CC3	Non- Chordates II	<ul> <li>Understood the diversity and classification and functional aspects of different systems of phylum Annelida, Arthropoda, Mollusca and Echinodermata.</li> <li>Understood the importance of metamerism in annelids</li> <li>Described the social life and economic importance of insects.</li> <li>Described the advanced characteristic features of cephalopod molluscs.</li> <li>Came to know that the resemblance and evolutionary significance of larval forms of echinoderms.</li> <li>Relationship of Hemichordata with non-chordates and chordates.</li> </ul>
II	CC4	Cell Biology	<ul> <li>Give the overview of cell</li> <li>Describe the composition of prokaryotic and eukaryotic cells.</li> <li>Describe the structure and function of plasma membrane</li> <li>Understand the structure, functions and interactions of cell organelles.</li> <li>Describe structure and function of chromosomes</li> <li>Detail description of cell division and their significance.</li> <li>Understand the properties and treatment of cancer cells.</li> <li>Description of cell regulatory mechanisms- regulatory and control mechanisms in a mammalian cell at the biochemical level, key concepts about cellular signaling mechanisms.</li> </ul>
	GE2	Animal Diversity	<ul> <li>Lower invertebrates, introduction, symmetry, coelom, acoelom and parasitism.</li> <li>Classify and characterize Phylum-Protozoa, Porifera, Coelenterata, Platyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca, Echinodermata.</li> <li>Characteristics and Outline Classification of Protochordata.</li> <li>Characteristics and Outline of Classification of Origin of Chordata.</li> <li>Characteristics and Outline Classification of Pisces and Amphibia, Reptiles, Aves, Mammalia.</li> </ul>

#### **SEMESTER-III**

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
	CC5	Chordates	<ul> <li>Identify the taxonomic status of the entire chordates and discuss the evolutionary model of the group.</li> <li>Imparted the knowledge on ecology of some important fishes, amphibians reptiles, birds and mammals.</li> <li>Impart knowledge in development systems of chordates.</li> <li>Make able to discuss some and very important phenomena in Chordates.</li> <li>Know about the conservation and management strategies of the chordate fauna.</li> <li>Describe zoogeography.</li> </ul>
	CC6	Animal Physiology: Controlling & Coordinating Systems	<ul> <li>Develop understanding for the fundamental concepts of different animal tissues.</li> <li>Structure of cartilage, bones and mechanism of ossification.</li> <li>Familiarize students with physiology of muscle, nerve and reproductive system.</li> <li>Knowledge of neuromuscular coordination and nerve impulse propagation.</li> <li>Understood the menstrual cycle and the role of contraceptive in population control.</li> <li>Develop basic understanding of endocrine system and its interactions with other systems.</li> </ul>
Ш	CC7	Fundamentals of Biochemistry	<ul> <li>Develop understanding on chemical bonding among molecules.</li> <li>Describe the relationship between the structure and function of biomolecules.</li> <li>Attained the knowledge of macromolecule such as carbohydrates, protein and fat, their types and significance.</li> <li>Understood the knowledge of cholesterol and its biological significance.</li> <li>Described the enzymes, mechanism of enzyme action and factors affecting the enzyme activity.</li> <li>Describe the structure of lipids and nucleic acids.</li> <li>Fundamental concept of bioenergetics in cellular processes.</li> <li>Metabolism of carbohydrate, protein, lipid and nucleic acid and their role.</li> </ul>
	SEC1	Apiculture	<ul> <li>Described Taxonomy, Morphological sex differences in larva and adult.</li> <li>Came to know about the culture methods of <i>Apis cerena indica</i>.</li> <li>Describe the diseases and pests of <i>Apis</i>.</li> <li>Study different byproduct of honey-bees and marketing strategies.</li> </ul>
	GE3	Aquatic Biology	<ul> <li>Gain knowledge about aquatic biomes.</li> <li>Classification, characteristics and nutrient cycle of freshwater bodies.</li> <li>Came to know about marine biology and adaptation in deep sea organisms.</li> <li>Explain the management system of aquatic resources.</li> </ul>

#### **SEMESTER-IV**

	Course		Course Learning Outcome
SEM	ID	Course Title	On completion of this course, the students will be able to
	CC8	Comparative Anatomy of Vertebrates	<ul> <li>Comparative vertebrate anatomy of the systems with respect to piscean, amphibian, reptilian, avian and mammalian.</li> <li>Describe the anatomy of Integumentary System.</li> <li>Describe the anatomy of Digestive System.</li> <li>Describe the anatomy of Circulatory and Respiratory Systems.</li> <li>Describe the anatomy of Urogenital System.</li> <li>Describe the anatomy of Neuro-endocrine System</li> </ul>
	CC9	Animal Physiology: Life Sustaining Systems	<ul> <li>Understood about the composition of food and mechanism of digestion absorption and assimilation.</li> <li>Attain knowledge of respiration and excretion and understood the mechanism of transport of gages and urine formation.</li> <li>Described the mechanism of circulation and composition of blood.</li> <li>Knowledge of mechanism of osmoregulation and thermoregulation in animals.</li> </ul>
IV	CC10	Immunology	<ul> <li>Describe the evolution of immunology, historical perspective</li> <li>Describe the fundamental concept of Innate and adaptive immunity.</li> <li>Immunoglobulin structure, functions and types.</li> <li>Develop the basic concepts of Antigenicity and immunogenicity.</li> <li>Describe the molecular structure and function of major histocompatibility complex.</li> <li>Illustration of allergy and hypersensitivity diseases, autoimmunity, transplant rejection and responses to alloantigens.</li> <li>An understanding of manipulation of immune responses for the benefit of mankind, vaccines.</li> </ul>
	SEC2	Sericulture	<ul> <li>Described Taxonomy, Morphological sex differences in larva and adult.</li> <li>Understood the culture of mulberry plants</li> <li>Came to know about the culture methods of <i>B.mori and</i> mulberry silk</li> <li>Described the diseases and pests of <i>B.mori</i>.</li> <li>Studied the quality of silk, silk gland and marketing strategies of silk.</li> </ul>
	GE4	Environment and Public Health	<ul> <li>Come to know about different sources of environmental hazards.</li> <li>Explain the effect of climate change in public health.</li> <li>Cause and effect of air, water and noise pollution.</li> <li>Gain the knowledge about waste management systems.</li> <li>Study the effect of selective disease on public health.</li> </ul>

#### **SEMESTER-V**

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to
			Analyze the structures and chemical properties of DNA and
V	CC11	Molecular Biology	<ul> <li>RNA.</li> <li>Describe the fundamental concept of DNA Replication, Transcription and the molecular events in Translation.</li> <li>Describe the types of Posttranslational modifications (PTM).</li> <li>Explain the process of gene expression and applications.</li> <li>Description of siRNA and miRNA basics, regulation of transcription and translation of proteins by miRNA.</li> <li>Developing concept of regulation of gene activity in prokaryotes and eukaryotes at transcriptional and posttranscriptional level.</li> <li>Describing structural and functional organization of a typical eukaryotic gene, transcription factors, enhancers and silencers, and non-coding genes.</li> <li>Describe DNA damage and repair mechanism</li> <li>Fundamental idea about molecular techniques like PCR, Western and Southern blot, Northern Blot, Sanger DNA sequencing.</li> </ul>
	CC12	Genetics	<ul> <li>Understanding of Mendel's principle, its extension and chromosomal basis.</li> <li>Determination of gene action from genotype to phenotype including penetrance and expressivity, gene interaction, epistasis, pleiotropy; nature of the gene and its functions.</li> <li>Describe mutation, mutagenesis and method for detection.</li> <li>Comprehend the effect of chromosomal abnormalities in numerical as well as structural changes leading to genetic disorders.</li> <li>Depicting the mechanism of sex determination and dosage compensation in human and Drosophila.</li> <li>Capability to perform gene mapping using 3- point test cross in Drosophila, gene mapping in humans by linkage analysis in pedigrees.</li> <li>Evolution of the concept of the gene and fine structure of gene using rII locus</li> <li>Understand the structure and function of Transposons.</li> </ul>

#### **SEMESTER-V** (Continued)

SEM	Course	Course Title	Course Learning Outcome
SEIVI	ID	Course Title	On completion of this course, the students will be able to
V	DSE1	Animal Behaviour and Chronobiology	<ul> <li>An overview of animal behavior, orientation to primary and secondary orientation; kinesis –orthokinesis, klinokinesis; taxis – different kinds of taxis; sun-compass orientation, dorsal- light reaction.</li> <li>Devising conservation strategies for different animal species. Learning and instincts: conditioning, habituation, sensitization, reasoning.</li> <li>Developing compassion towards other animals as well as other individuals, group selection, kin-selection and inclusive fitness, cooperation, and alarm call.</li> <li>Evaluating other individuals of the society and taking decisions.</li> <li>Explain feeding and Reproductive behavior</li> <li>Description of milestones in clock research, biological rythms, advancement in Chronobiology.</li> <li>Zeitgeber cycles, organization of circadian system in multicellular animals.</li> <li>Conceptualization of central and peripheral clock system, circadian pacemaker system in invertebrates and vertebrates.</li> <li>To develop understanding of diversity and complexity of the clock system, molecular Biology of the circadian pacemaker system.</li> <li>An overview of photoreception and photo-transduction, the physiological clock and measurement of day length, role of photic and non-photic cues in seasonality</li> <li>Illustration of the relevance of biological clocks for human welfare - Clock function (dysfunction).</li> </ul>
	DSE2	Animal Biotechnology	<ul> <li>Attain knowledge about the history, branches and scope of biotechnology.</li> <li>Understood the recombinant technology, gene integration into the vector and with host genome and creation of transgenic animals.</li> <li>Gain knowledge about in-vitro fertilization and embryo transfer</li> <li>Understand the principle and applications of biotechnology techniques – DNA fingerprinting, plotting technique micro array.</li> <li>Application of the knowledge of stem cells and gene therapy.</li> <li>Understood the tools of gene manipulation and gene transfer</li> <li>Knowledge of construction and labeling of molecular probe, construction of genomic library and protein engineering.</li> <li>Understood the techniques of recombinant DNA technology and its applications.</li> <li>Came to know about the techniques and applications of human genome projects</li> </ul>

#### **SEMESTER-VI**

SEM	Course ID	Course Title	Course Learning Outcome At the end of the course the students will be able to
SEM	CC13	Developmental Biology	<ul> <li>Information about history and basic concepts of developmental biology.</li> <li>Illustration of model systems: invertebrate and vertebrate model organisms.</li> <li>Explain the fundamental concept of embryogenesis.</li> <li>Elucidation of early embryonic development of invertebrates and vertebrates.</li> <li>Concepts of organogenesis in invertebrates and vertebrates: the homeotic selector genes.</li> <li>Illustration of postembryonic development: growth- cell proliferation, growth hormones; aging genes involved in alteration in timing of senescence.</li> <li>Understanding of process of regeneration in Hydra and salamander.</li> <li>Explanation of embryonic stem cells and their applications.</li> <li>Description of medical implications of developmental biology, genetic errors of human development, the nature of human syndromes.</li> <li>An insight on teratogenesis- environmental assaults on human development, teratogenic agents.</li> </ul>
VI	CC14	Evolutionary Biology	<ul> <li>Trace the Origin of life: A concept of – "from molecules to life", life originated from RNA, introns as ancient component of genes.</li> <li>Established theories of evolution: Correlate the theories with the evidences.</li> <li>Explain the genetic basis of evolution</li> <li>An insight to the overview of evolutionary biology, concept of organic evolution during pre- andpost- Darwin era evolution and molecular biology- a new synthesis.</li> <li>Understanding of the universal common ancestor and tree of life, three domain concept of living kingdom.</li> <li>Illustration of the molecular phylogeny, construction of phylogenetic trees using molecular data, construction of phylogenetic trees by using 16S rRNA gene sequences and concept of speciation in bacteria.</li> <li>Description of molecular divergence and molecular clocks and molecular drive, complication in inferring phylogenetic trees.</li> <li>Study of origin and diversification of eukaryotes, early fossilized cells, evolution of eukaryotic cell from prokaryotes- a case of symbiosis, evolution of eukaryotic genomes; gene duplication and divergence.</li> <li>Conceptualization of mode of speciation, evolution, systematics, biological classification, origination, extinction, and causes of differential rates of diversification. Illustration of current status and future of biodiversity, human evolution.</li> </ul>

#### **SEMESTER-VI** (Continued)

SEM	Course ID	<b>Course Title</b>	Course Learning Outcome At the end of the course the students will be able to	
VI	DSE3	Endocrinology	<ul> <li>Developing a concept of endocrine system, its function and phylogeny.</li> <li>Description of discovery of hormones as chemical signals for control and regulation of physiological processes.</li> <li>Understanding the nature of hormonal action.</li> <li>Elucidation of biosynthesis of protein hormones and molecular mechanisms of regulation.</li> <li>Knowledge of signal discrimination, signal transduction and signal amplification in hormone regulated physiological processes.</li> <li>Proficiency in using hormones as therapeutic agentsin regulation of fertility, and hormonal contraceptives.</li> <li>Illustration of evolution of thyroid gland, thyroid hormone synthesis and its regulation, hormonal regulation of calcium and phosphate homeostasis.</li> <li>Understood Epiphysis, Hypothalamo-hypophysial Axis.</li> <li>Come to know about the mechanism of action of steroidal, non-steroidal hormones with receptors. Bioassays of hormones using RIA &amp; ELISA.</li> </ul>	
	DSE4	Biology of Insects	<ul> <li>Insect taxonomy to introduce students to fascinating world of insects.</li> <li>Describe the general insect morphology.</li> <li>Describe the insect physiology.</li> <li>Fundamental understanding of insect pathology.</li> <li>Insect's role as a source for commercial products (honey, wax, silk, lac and medicines), in forensic science; as vectors; in pest control.</li> <li>Identifying beneficial and harmful insects based on comparative study of morphology and their articulation.</li> <li>Identifying potential disease vectors</li> <li>Identifying potential biocontrol agents.</li> <li>Understood insect – plant interaction: role of allelochemicals.</li> </ul>	

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF B.Com. Honours in Financial Accounting

**PROGRAMME** 

#### **Program Specific Outcomes**

## For the students graduating with the Degree B.Com (Honours) in Financial Accounting

#### **Financial Accounting:**

- a) To enable the students to learn principles and concepts of Accountancy.
- b) Students are enabled with the Knowledge in the practical applications of accounting.
- c) To enable the students to learn the basic concepts of Partnership Accounting, and allied aspects of accounting.
- d) The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects.
- e) To find out the technical expertise in maintaining the books of accounts.
- f) To encourage the students about maintaining the books of accounts for further reference.

#### **Marketing and Salesmanship**

- g) This course enables the students, the practical knowledge and the tactics in the marketing.
- h) To study and critically analyze the basic concepts and trends in Marketing.
- i) To aware of the recent changes in the field of marketing.

#### **Computer Concepts and applications**

- i) To make students familiar with computer environment & operating systems
- k) To introduce students with accounting packages like tally.
- l) To develop skill and knowledge among students in applications of internet in education of commerce.

#### **Business Mathematics and Statistics**

- m) To use and understand useful functions in business as well as the concept of EMI.
- n) To understand the different concept of population and sample and to make students familiar with Calculation of various types of averages and variation.
- o) To learn the applications of matrices in business.
- p) To understand the students to solve LPP to maximize the profit and to minimize the cost.
- q) To use regression analysis to estimate the relationship between two variables and to use frequency distribution to make decision.
- r) To understand the techniques and concept of different types of index numbers.

#### **Business Environment and Entrepreneurship**

- s) To make the students aware about the Business and Business Environment.
- t) To develop entrepreneurial awareness among students.
- u) To motivate students to make their mind set for thinking entrepreneurship as career.

#### **Banking and Finance**

- v) To familiar the students with the fundamentals of banking and thorough knowledge of banking operations.
- w) To build up the capability of students for knowing banking concepts and operations.
- x) To aware the students about financial structure, system and the basic principles of financial discipline and decisions.
- y) To make understandable to the students regarding the new concepts introduced in the banking system.
- z) To make the students aware about the Primary and Secondary market operations and the basic analytical tools for the measurement and comparison of performances of different investment options and opportunities.

#### **Department of Commerce**

#### Programme: B.Com. (Honours) in Financial Accounting

#### **Course Outcomes**

#### SEM-I & II

SEM	Course ID	Course Title	Course Learning Outcome On completion of this course, the students will be able to	
	CC1	C1T: Financial Accounting and C1P: Practical	Students will get sufficient knowledge in the basic accounting system, conceptual knowledge of financial accounting and to impart skills for maintaining accounts, its principles, standard norms etc. And practical knowledge through computerised accounting processes.	
I	CC2	C2T: Business Law	It provides basic knowledge and ideas of mercantile laws with case study.	
	GE1	GE1T: Micro Economics	To acquaint the students with the concept of Micro Economics dealing with Consumer behaviours, demand and supply of the market, different types of production cost and competition, cost behaviour of firms etc.	
	AECC1	English MIL	It imparts basic communication skills and writing reports, drafts, letters, notice etc.	
	CC3	C3T: Corporate Accounting	This subject helps the students to get sufficient knowledge and skills in company accounts, Processes, company final accounts and balance sheet, cash flow statement as per company act 2013.	
II	CC4	C4T: Students Corporate Laws	Outcome: It imparts knowledge about company laws as per company act 2013.	
	GE2	GE2T: Macro Economics	Students get the knowledge of Income, Savings, Investment, National Income Determination, Foreign Trade etc.	
	AECC2	ENVS	Adequate awareness about environmental problems, conservation of resources, National and International policies to control environment problems with project work.	

#### **Department of Commerce**

#### Programme: B.Com. (Honours) in Financial Accounting

#### **Course Outcomes (Continued)**

#### SEM-III & IV

SEM	Course ID	Course Title	Course Learning Outcome
	CC5	C5T: Human Resource Management	Students get knowledge of human resource objectives, planning, Man power development, Recruitment, Placement, Promotion, Compensation, Labour Turnover etc.
	CC6	C6T: Income Tax Law and Practice C6P: Practical	It provides adequate knowledge about assessment of Income from different sources, Carry forward and set off, practical activities through computers like e-filing, GST, CGST and filing returns etc.
III	CC7	C7T: Management principles and application	Provides basic management policies, functions, contributions by management scientist and evolution of management thoughts. Different functional activities level of management and organisation structure etc.
	GE3	GE3T: Business Statistics GE3P: Practical	This subject provides statistical knowledge and practical ideas regarding data collection, tabulation, graphical representation, and analysis of collected data through central tendency, dispersion, moments, skewness, kurtosis, etc. It also gives knowledge about correlation regression analysis, time series and index number for estimation and forecasting.
	SEC1	E-commerce	Students get basic theory and practical knowledge about the e- commerce system, e-commerce needs and methods and practice using computers, mobile.
	CC8	C8T: Cost Accounting	It imparts the Ideas and nature of cost accounting systems, cost analysis, estimation of direct, indirect, variable, fixed and semi variable cost. It helps in the preparation of cost sheet and estimation of cost, different types of costing system, material, labour, overhead, contract cost, job cost, cost ledger and costing final accounts and reconciliation between final accounts of financial accounting system.
	CC9	C9T: Business Mathematics C9P: Practical	It gives a good knowledge on matrix, determinant, calculus and practical experience through using computers, problem solving etc.
IV	CC10	C10T: Computer Application in Business C10P: Practical	It provides a sound knowledge about application of computer for day to day activities, theoretical and practical knowledge with word, excel, powerpoint etc.
	GE4	GE1T: Indian Economy	Outcome: It imparts knowledge and ideas of problems of Indian Economy, remedies. Different steps taken by government for labour policy, industrial policy, international trade- export and import policy, FDI and SME, large scale industries, problems of industries, privatization, banking system in India and regulation.
	SEC2	Entre- preneurship	It provides the students a basic idea about entrepreneurship, types, features, functions, history of entrepreneurship in India, entrepreneurship development programme and project formulation, so that students can prepare projects for their business independently.

#### **Department of Commerce**

#### Programme: B.Com. (Honours) in Financial Accounting

#### **Course Outcomes (Continued)**

#### SEM-V & VI

SEM	Course ID	Course Title	Course Learning Outcome	
	CC11	C11T: Principles of marketing	The main outcome of this subject is providing basic marketing systems, principles, policies, functions and different theories with project work, case study.	
	CC12	C12T: Fundamentals of financial management C12P: Practical	It provides knowledge and concept of finance of business, management of finance, capital structure, cost of capital, leverage, dividend policy etc. So that students can enrich their knowledge with business finance.	
V	DSE1	Financial Market	Students get ideas about Indian financial market, money market, capital market etc., how Indian financial market operates, sources of finance, financial instruments and regulatory authorities to control Indian financial market, stock exchange, SEBI, RBI etc.	
	DSE2	Management Accounting	Students get from this subject sound and practical knowledge about what is management accountancy and working capital management, budgetary control, marginal costing techniques, standard costing techniques and decision making process through accounting information and analysis.	
	Core13	C13T: Auditing and Corporate Governance	Outcome: It provides the students with different activities by auditors, corporate and government audit, social audit etc. It helps to acquire good ideas on corporate governance as per Indian company act 2013.	
	CC14	C14T: Indirect Tax Laws	Outcome: Students get basic and practical knowledge of Indirect tax, like GST, SGST, gift tax, wealth tax etc. and e-filing of those tax processes.	
VI	DSE3	Fundamental of Investment	Outcome: It provides some necessary concepts and knowledge about Investment, Investment need and opportunity, different modes of Investment, Risk associated with Investment etc.	
	DSE4	Business Research Method and Project Work	Outcome: This subject helps the student to know about research, research methodology, data collection, uses of various software for preparation of report and comparison of collected data, analysis in a systematic way, practical knowledge of project work etc.	

# PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES OF B.C.A PROGRAMME

#### **BCA (Hons) (Bachelor in Computer Application)**

#### **Program Outcomes**

- To provide thorough understanding of nature, scope and application of computer and computer languages.
- To develop interdisciplinary approach among the students.

#### **Program Specific Outcomes**

After the completion of the course, a student is able

- To pursue further studies to get specialization in Computer Science and Applications, Economics, Mathematics, business administration
- To pursue the career in corporate sector can opt for MCA, MBA.
- To Work in the IT sector as a programmer, system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.
- To work in public sector undertakings and Government organisations.
- For teaching in Schools and Colleges.

#### Course Objectives and Outcomes BCA Sem-I

#### Subject: Computer Fundamentals

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Computer Fundamentals	SEMESTER: I
Subject code: BCA -1101	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To impart knowledge about the structure, components and functions of a computer system.
- To understand working of basic input and output devices. □
- To learn about the binary number representation along with its operations.
- To give detailed knowledge of MS-Office.
- To give an in-depth understanding of role of computers in business, education and society.

#### **Course Outcomes:**

- Familiarization with the terms like Operating System, peripheral devices, networking, multimedia, internet etc.
- Ability to use internet for searching information on web, sending e-mails and many other tasks.
- Skill to work with MS-Word, Excel and PowerPoint.
- Initiation into the process of writing business letters or job applications, tabulating data, preparing PPTs etc using MS-Office

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: PROGRAMMING IN C

PROGRAMME: Computer Application	DEGREE:BCA
Subject: PROGRAMMING IN C	SEMESTER: I
Subject Code: BCA -1102	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To introduce students to a powerful programming language C.
- To understand the basic structure of a C program.
- To gain knowledge of various programming errors.
- To enable the students to make flowchart and design an algorithm for a given problem.
- To enable the students to develop logics and programs.

#### **Course Outcomes:**

- In-depth understanding of various concepts of C language.
- Ability to read, understand and trace the execution of programs.
- Skill to debug a program.
- Skill to write program code in C to solve real world problems.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

### Subject: DISCRETE MATHEMETICAL STRUCTURE WITH APPLICATION OF COMPUTER SCIENCE

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Discrete Mathematics Structure with Application of Computer Science.	SEMESTER: I
Subject code: BCA -1103	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To understand and solve discrete mathematical problems.
- To impart knowledge regarding relevant topics such as set Theory, basic logic, graphs, trees or discrete probability.
- To familiarize students with linear Algebra, differential and integral calculus, numerical methods and statistics.

#### **Course Outcomes:**

- Develops formal reasoning.
- Creates habit of raising questions.
- Knowledge regarding the use of Discrete Mathematics in Computer Science.
- Helpful in formulating questions.
- Ability to communicate knowledge, capabilities and skills related to the computer engineer profession.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Digital Electronics

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Digital Electronics	SEMESTER: I
Subject Code: BCA -1104	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To gain basic knowledge of digital electronics circuits and its levels.
- To understand and examine the structure of various number system and its conversation.
- To learn about the basic requirements for a design application.
- To enable the students to understand, analyze and design various combinational and sequential circuits. □
- To understand the logic functions, circuits, truth table and Boolean algebra expression.

#### **Course Outcomes:**

- Skill to build and troubleshoot digital logic circuits.
- Skill to use the methods of systematic reduction of Boolean expression using K- Map.
- Ability to interpret logic gates and its operations.
- Familiarization with semiconductor memories in electronics.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Communication Skill and Language Laboratory

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Communication Skill and Language Laboratory	SEMESTER: I
Subject Code: BCA -1195	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### **Course Objectives:**

- To enable the learner to communicate effectively and appropriately in real life situation.
- To use English effectively for study purpose across the curriculum.
- To develop and integrate the use of four language skills:
  - a) Reading, b) Writing c) Listening d) Speaking
- To revise and reinforce structure already learnt.

#### **Course Outcomes**

- **Reading Skills:** Ability to read English with ability to read English with understanding and decipher paragraph patterns, writer techniques and conclusions.
- Writing Skills:- Skill to develop the ability to write English correctly and master the mechanics of writing the use of correct punctuation marks and capital letter.
- Listening Skills:- Ability to understand English when it is spoken in various contexts.

• Speaking Skills:- Develop the ability to speak intelligibly using appropriate word stress, sentence stress and elementary intonation patterns.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: C PROGRAMMING LABORATORY

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: C PROGRAMMING LABORATORY	SEMESTER: I
COURSECODE: BCA -1196	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Subject: DIGITAL ELECTRONIC AND LOGIC LABORATORY

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Digital Electronic and Laboratory	SEMESTER: I
COURSECODE: BCA -1197	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Course Objectives and Outcomes BCA Sem-II

#### Subject: Computer Organisation and Architechture

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Computer Organisation and Architechture	SEMESTER: II
Subject Code: BCA -1201	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To enable the students to understand the functionality and implementation of computer system.
- To familiarize with the various instruction codes and formats of different CPUs.
- To introduce the students to I/O and memory organization of computer system.
- To deliver an overview of Control Unit of a computer system.
- To learn the usage of parallel and vector processing.

#### **Course Outcomes:**

- Ability to understand the functionality, organization and implementation of computer system.
- Skill to recognize the instruction codes and formats.
- Knowledge of the internal working of main memory, cache memory, associative memoryand various modes of data transfer.
- Familiarization with the working of parallel processing and vector processing.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Data Structure

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Data Structure	SEMESTER: II
Subject Code: BCA -1202	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To familiarize the students with data structures used for representing data in memory like Arrays, Linked Lists, Graphs, Trees etc.
- To analyze the performance of algorithms.
- To learn how to apply algorithms of data structures on data.
- To gain knowledge of various methods used in data structures such as brute force, divide and conquer, greedy, etc.

#### **Course Outcomes:**

Skill to analyze algorithms and to determine algorithm correctness and their time efficiency.

- Knowledge of advanced abstract data type (ADT) and data structures and their implementations.
- Ability to implement algorithms to perform various operations on data structures.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Mathematical Foundation for Computer Science

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Mathematical Foundation for Computer Science	SEMESTER: II
Subject Code: BCA -1203	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To understand and solve discrete mathematical problems.
- To impart knowledge regarding relevant topics such as Differential Calculus-Successive differentiation. Leibnitz's theorem, mean value theorem. Rolle's theorem(Statement only), Cauchy mean value theorem(statement only), Lagrange mean value heorem(statement only),
- To familiarize students with linear Algebra, Linear independence and dependence of vectors. Eigen vector and Eigen value, characteristic polynomial and characteristic equation, cayley- Hamilton therem. Determinant, Matrix-addition, multiplication of matrices, matrix inverse. Solution of system of equation of three variables by matrix method, crammers rule. Higher Algebra-different type of mapping and their simple example.

#### **Course Outcomes:**

- Develops formal reasoning.
- Creates habit of raising questions.
- Knowledge regarding the use of Discrete Mathematics in Computer Science.
- Helpful in formulating questions.
- Ability to communicate knowledge, capabilities and skills related to the computer engineer profession.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Financial and Management Accounting

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Financial Management and Accounting	SEMESTER: II
Subject Code: BCA -1204	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- Fundamental concepts about account.
- The objective of the course is to strengthen the fundamentals of accounting and provide strong foundation for other accounting courses.
- The course will intensify knowledge on all the basic components by using double entry book keeping perspective.

#### **Course Outcomes:**

The students will be able to:

- Define fundamental accounting concepts, Conventions & terminologies.
- Describe the importance, functions & objectives of books of entry, subsidiary books, bank reconciliation statement and Final accounts.
- Prepare books of entry, subsidiary books, bank reconciliation statement and Final accounts using double entry book keeping.
- To rectify the errors located in books of entry & subsidiary books.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: System Ananysis and Design

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Syatem Ananysis and Design	SEMESTER: II
Subject Code: BCA -1205	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To understand the categories of Information System (IS) and its various operations support systems.
- To gain knowledge about various IS like Accounting System, Inventory Control System and Office Automation System.
- To explain various phases of software development life cycle (SDLC) and differnet methodologies.
- To enable the students to understand managerial issues related to the information systems.
- To provide foundation for understanding the software development process in a defined way according to industrial standards.

#### **Course Outcomes:**

 Ability to analyze a problem and identify and to define the computing requirements appropriate to its solution.

- Understand and evaluate a computer based information system.
- Capability to assist in the creation of an effective Project plan.
- Develop the software projects or prototypes by understanding the requirements.
- Meet the project deadlines along with the number of resources and type of tasks to be carried out.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: DATA STRUCTURE LABORATORY

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Data Structure Laboratory	SEMESTER: II
COURSECODE: BCA -1296	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Subject: FINANCIAL ACCOUNTING LABORATORY

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Financial Accounting Laboratory	SEMESTER: II
COURSECODE: BCA -1297	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

## Course Objectives and Outcomes BCA Sem-III

Subject: Design and Analysis of Algorithm

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Design and Analysis of Algorithm	SEMESTER: III
Subject Code: BCA -2101	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To analyze the performance of algorithms, time complexity, Time and space complexity, Asymptotic Notation, Big-O, omega, theta etc.; finding time complexity of well known algorithms, like heapsort, search algorithm etc.
- To familiarize the students with Algorithm Design techniques ,Recursion- Definition, Use, Limitations, Examples: Hanoi problem, Tail Recursion.
- To learn how to apply algorithms of data structures on data.
- To gain knowledge of various methods used in algorithm such as brute force, divide and conquer, greedy,backtracking,dynamic programming etc.

#### **Course Outcomes:**

- Skill to analyze algorithms and to determine algorithm correctness and their time efficiency.
- Knowledge of design advanced algorithm and their implementations.
- Ability to implement algorithms to perform various operations on data structures.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: System Programming

PROGRAMME: Computer Application	DEGREE:BCA
Subject: System Programming	SEMESTER: III
Subject Code: BCA -2102	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To introduce the students about the system software and its application.
- To understand the working of different translators viz. Assembler and Compiler.
- To learn about the instructions of assembly language.
- To familiarize with various software development tools.

#### **Course Outcomes:**

- Detailed knowledge of Compilation process of a program.
- Knowledge of internal working of macro processor.
- Familiarization with Assembly language.

• Understanding the working of linker and loaders – components used during the process of program execution.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Computer Oriented Numerical Methods and Statistical method

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Computer Oriented Numerical Methods and Statistical method	SEMESTER: III
Subject Code: BCA -2103	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To learn how to perform error analysis for arithmetic operations.
- To demonstrate working of various numerical methods.
- To provide a basic understanding of the derivation and use of methods of interpolation and numerical integration.
- To impart knowledge of various statistical techniques.
- To develop students' understanding through laboratory activities to solve problems related to above stated concepts.

#### **Course Outcomes:**

- Skill to choose and apply appropriate numerical methods to obtain approximate solutions to difficult mathematical problems.
- Ability to apply various statistical techniques such as Measures of Central Tendency and Dispersion.
- Understanding of relationship between variables using the method of Correlation and Trend Fit Analysis.
- Skill to execute programs of various Numerical Methods and Statistical Techniques for solving mathematical problems.

#### **Assessment Methodologies:**

Assessment victiouologies.		
S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Database Management System

PROGRAMME: Computer Application	DEGREE: BCA
Subject: Database Management System	SEMESTER: III
Subject Code: BCA -2104	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To introduce the students to understand and use a relational database system.
- Introduction to Databases, Conceptual design using ERD, Functional dependencies and Normalization, Relational Algebra is covered.
- To learn how to design a database by using different models.
- To enable the students to understand the database handling during execution of the transactions.
- To understand the handling of database by concurrent users.
- To gain complete knowledge of SQL and PL/SQL.

#### **Course Outcomes:**

- Familiarization with Database Management System.
- Able to construct an Entity-Relationship (E-R) model from specifications and to transform to relational model.
- Comprehensive knowledge of database models.
- Able to construct unary/binary/set/aggregate queries in Relational Algebra.
- Understand and apply database normalization principles.
- Ability to code database transactions using SQL.
- Skill to write PL/SQL programs.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Microprocessor

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Microprocessor	SEMESTER: III
Subject Code: BCA -2105	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- Familiarization with 8085 Architecture & organization, Instruction cycles, machine cycles.
- Familiarization with 8085 Instruction set: Instruction format, addressing modes, classification of instruction set.,8085 Programming: Assembly language programming: basic structure,
- Able to construct Stack operations, limitations, subroutine concepts, parameter passing techniques, subroutine design, delay subroutine design & applications, Re-entrant & recursive subroutines, concept of counters and timers.

#### **Course Outcome:**

- To learn how to design 8259A interrupt controller.
- To enable the students to understand single level interrupt, multilevel interrupt & vector interrupt system, 8085 interrupt structure and its operation,
- To understand 8255 programmable peripheral interface,8254 programmable timer,8237 programmable DMA controller..the handling of database by concurrent users.
- To gain complete knowledge of 8086 and architecture, segmented memory has cycles, read/write cycle in min/max mode. Reset operation, wait state, Halt state, Hold state, Lock operation, interrupt processing of SQL and PL/SQL.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: DBMS LABORATORY

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: DBMS Laboratory	SEMESTER: III
COURSECODE: BCA - 2196	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

Subject: MICROPROCESSOR LABORATORY (8085) and SYSTEM PROGRAMMING LABORATORY (8086) (GR.A) and NUMERICAL LABORATORY (GR.-B)

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Microprocessor and Numerical Lab	SEMESTER: III
COURSECODE: BCA – 2197 (Gr.A & Gr. B)	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Course Objectives and Outcomes BCA Sem-IV

Subject: Object Oriented Programming using C++

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Object Oriented Programming using C++	SEMESTER: IV
Subject Code: BCA -2201	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To give an overview of benefits of Object Oriented Programming (OOP) approach over the Traditional Programming approach.
- To deliver comprehensive view of OOP concept.
- The fundamental point in learning programming is to develop the critical skills of formulating programmatic solutions for real problems.
- the student can develop object oriented software using class encapsulation and inheritance.
- To impart detailed knowledge of a powerful object oriented programming language C++.

#### **Course Outcomes:**

- Familiarization with a widely used programming concept Object Oriented Programming.
- Develop logical thinking.
- Skill to write codes in C++ by applying concept of OOP, such as Objects, Classes,
- Constructors, Inheritance etc., to solve mathematical or real world problems.
- Ability to isolate and fix common errors in C++ programs
- Design and implement Applet and event handling mechanisms in programs

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Operating System

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Operating System	SEMESTER: IV
Subject Code: BCA -2202	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To understand the services provided by and the design of an operating system.
- To understand the structure and organisation of the file system.
- To understand what a process is and how processes are synchronized and scheduled.
- To understand different approaches to memory management.
- Students should be able to use system calls for managing processes, memory and the file system.
- Students should understand the data structures and algorithms used to implement an OS.

#### **Course Outcomes:**

- Analyze the concepts of processes in operating system and illustration of the scheduling of processor for a given problem instance.
- Identify the dead lock situation and provide appropriate solution so that protection and security of the operating system is also maintained.
- Analyze memory management techniques, concepts of virtual memory and disk scheduling.
- Understand the implementation of file systems and directories along with the interfacing of IO devices with the operating system.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Operation Reasearch

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Operation Reasearch	SEMESTER: IV
Subject Code: BCA -2203	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To understand the role of computers in OR, Formulations and graphical solution of Linear Programming Problem.
- To understand the simplex methods charnes method of penalties two phase simplex method, Duality.
- To understand Transportation Model, Assignment problem and formulation and solution of transportation models like The row—minima, column-maxima, matrix-minima and vogel's approximation methods. Assignment model:

#### **Course Outcomes:**

- Analyze the concepts of processes Integer Programming Problem(IPP).
- Identify the dead lock situation and provide appropriate solution so that protection and security of the operating system is also maintained.
- Analyze the Networks Fulkerson's rule measure of activity PERT computation CPM computation
- Understand Game Theory.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Software Engineering

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Software Engineering	SEMESTER: IV
Subject Code: BCA -2204	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To introduce the students to a branch of study associated with the development of a software product.
- To gain basic knowledge about the pre-requisites for planning a software project.
- To learn how to design of software.
- To learn how to design DFD tructure chart. Understand concept of Project Management along with software testing, maintenance, back-up..
- To enable the students to perform testing of a software.

#### **Course Outcomes:**

- Evaluate and analyze the SDLC and basic architecture SRS documents.
- Familiarization with the concept of software engineering and its relevance.
- Understanding of various methods or models for developing a software product and coding techniques.
- Ability to analyze existing system to gather requirements for proposed system.
- Skill to design and code a software.
- Understand the concept project management.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Computer Networks

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Computer Networks	SEMESTER: IV
Subject Code: BCA -2205	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To enable the students to understand the Network Architecture, Network type and topologies.
- To understand the design issues and working of each layer of OSI model.
- To familiarize with the benefits and issues regarding Network Security.

#### **Course Outcomes:**

- Knowledge of uses and services of Computer Network.
- Ability to identify types and topologies of network.

- Understanding of analog and digital transmission of data.
- Familiarization with the techniques of Network Security.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: C++ LAB

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: C++ Lab	SEMESTER: IV
COURSECODE: BCA - 2296	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Subject: OPERATING SYSTEM LAB (Gr.-A) & NETWORKING LAB (Gr.-B)

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Operating System and Networking Lab	SEMESTER: IV
COURSECODE: BCA - 2297	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Course Objectives and Outcomes BCA Sem-V

Subject: Object Oriented Programming USING JAVA

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Object Oriented Programming USING JAVA	SEMESTER: V
Subject Code: BCA -3101	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

Course pre-requisites: Basic knowledge about C,C++.

#### **Course Objectives:**

- The fundamental point in learning programming is to develop the critical skills of formulating programmatic solutions for real problems.
- It will be based on basic knowledge of algorithms and procedural programming language. Once the basic skill of writing programs using loop, methods and arrays will be clear then the student can develop object oriented software using class encapsulation and inheritance.
- To impart the basic concepts of Java Programming and to develop understanding about Basic Object oriented Design using Applet.

#### **Course Outcomes:**

- Understands fundamental constructs of OOP.
- Gets the knowledge of different forms of OO Implementation.
- Apply object oriented programming concepts in problem solving through JAVA.
- Ability to create packages and interfaces.
- Ability to implement error handling techniques using exception handling.
- Design and implement Applet and event handling mechanisms in programs

Assessment Methodologies:

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Profession values and Ethics

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Profession values and Ethics	SEMESTER: V
Subject Code: BCA -3102	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To introduce the students about Renewable Energy Resources, Environmental degradation and pollution. Eco-friendly Technologies.
- Environmental Studies is a multidisciplinary subject. It has been introduced with the objective of exposing the students to the basic concepts of environment resources, pollution, management and law and also the current issues endangering life on earth.
- To gain basic knowledge about the safety regulations safety engineering.
- To learn about the value Crisis in contemporary society. Nature of values, Value Spectrum of a 'good' life Psychological values with Integrated personality; mental health. Societal values.
- To enable the students to perform testing of a software.

#### **Course Outcomes:**

- Evaluate and analyze the Concept and perspective of Human Resource Management, Concept of Human Resource Planning importance, Human Resource planning process,
- Familiarization with the concept of Barriers to Human Resource planning, Measures to make Human Resource Planning effective, Role of training & Development of Human Resources, Conducting Training & Development Programmes.
- Understanding of Cost benefit analysis for Training & Development. Concept of incentives, Financial incentives- types,
- Ability to analyze the Rational of incentives, fringe Benefits, Types of benefits, Making benefit Programmes effective.
- Understand the concept of Human Resources Communication, Communication channels, Human Resources Communication Media, making Human Resources Communication Effective.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: .(dot) Net Technology

PROGRAMME: Computer Application	DEGREE:BCA
Subject: .(dot) Net Technology	SEMESTER: V
Subject Code: BCA -3103	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- The fundamental point in learning the concept of NET Framework, The Common Language Runtime, CLRBased Languages, The NET Framework Class Library, The NET Compact Framework
- It will be based on basic knowledge about Web Services, Describing Web Services, Access to Internet Applications, B2B Integration, A Web Services Scenario, XML, WSDL, SOAP, UDDI, Future Directions for Web Services.
- To impart the basic concepts of The XML Technology Family Creating and Destroying Remote Object, System Enterprise Services, GUIs Using Windows Forms, Windows Forms Controls.
- Ability to NET Data Providers, Direct Access to Data, Accessing Data with DataSets, Creating and Using DataSets, Accessing and Modifying a DataSet, Using DataSets with XMLDefined Data.

#### **Course Outcomes:**

- Understands fundamental constructs of OOP.
- Gets the knowledge of different forms of Browser Applications Work, Web Controls, Separating the User Interface.
- Apply object oriented programming concepts in problem solving through C#,VB.NET
- Ability to create packages and interfaces.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Compiler Design (ELECTIVE – I)

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Compiler Design (ELECTIVE – I)	SEMESTER: V
Subject Code: BCA -3104	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To develop an understanding of computability and complexity.
- To develop an ability to design machine models for various computation problems.
- Design of lexical analyzer. Basic parsing techniques such as shift reduce parsing, operator-precedence parsing, Top-down parsing, bottom-up parsing. Symbol tables: Contents, data structures, representation of scope. Syntax directed translation.

#### **Course Outcomes:**

- Students would be able to design cross compiler.
- Students would be able to design algorithms using machine models
- Students would be able to apply the knowledge in compiler design, text and image processing.
- The student will be able to define a system and recognize the behaviour of a system.
- They will be able to minimize a system and compare different systems.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: SEMINAR

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Seminar	SEMESTER: V
COURSECODE: BCA – 3195	COURSE TYPE: Presentation by Individual topic
Practical class per week: 5	Duration of period: 60 minutes

#### Subject: JAVA LAB

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Java Lab	SEMESTER: V
COURSECODE: BCA – 3196	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

#### Subject: .(dot)NET LAB

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: .(dot) Net Lab	SEMESTER: V
COURSECODE: BCA - 3197	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

## Course Objectives and Outcomes BCA

#### Sem-VI

Subject: Object Oriented Analysis and Design (Using UML)

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Object Oriented Analysis and Design (Using UML)	SEMESTER: VI
Subject Code: BCA -3201	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To introduce students the basic concept of object oriented modelling, conceptual model of the UML, Architecture, Software DevelopmentLifecycle.
- To gain basic knowledge about Basic Structural Modeling: Classes, Relationships, common Mechanisms and diagrams.
- To learn about the Class & Object Diagrams: Terms, concepts, modeling techniques for Class & Object Diagrams.
- To learn how to design UMLlike Use cases, Use case Diagrams, Activity Diagrams.
- To enable the students to perform testing of a software uding UML.

#### **Course Outcomes:**

- Evaluate and analyze the Architectural Modeling: Component, Deployment, Component diagrams and Deployment diagrams.
- Familiarization with the concept of UML and its relevance.
- Understanding of various methods or models for developing a software product and coding techniques.
- Skill to develop and design the different Case Study using UML.

#### **Assessment Methodologies:**

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

#### Subject: Advanced Database Management System (ELECTIVE - 2)

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Advanced Database Management System (ELECTIVE-2)	SEMESTER: VI
Subject Code: BCA -3202	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

Course pre-requisites: Knowledge about Database Management System.

#### **Course Objectives:**

- The objective of the course is to enable students to understand and use a relational database system. Introduction to Databases, Conceptual design using ERD, Functional dependencies and Normalization, Relational Algebra is covered in detail.
- Students learn how to design and create a good database and use various SQL operations.
- To enable the students to perform Multivalued dependencies, theory of normalisation-4NF, 5NF, 6NF DKNF
- To learn about transaction management and introduction to advanced and non-relational databases, lock base protocols, Two-phase locking, Live Lock, Time- Stamp Protocol.

#### **Course Outcomes:**

- Able to master the basic concepts and understand the applications of database systems.
- Able to construct an Entity-Relationship (E-R) model from specifications and to transform to relational model.
- Able to construct unary/binary/set/aggregate queries in Relational Algebra.
- Understand and apply database normalization principles.
- Able to construct SQL queries to perform CRUD operations on database. (Create, Retrieve, Update, Delete)
- Understand principles of database transaction management, database recovery, security.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	TYPE
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: Computer Graphics and Multimedia

PROGRAMME: Computer Application	DEGREE:BCA
Subject: Computer Graphics and Multimedia	SEMESTER: VI
Subject Code: BCA -3203	COURSE TYPE: Theory
Periods per week: 3	Duration of period: 60 minutes

#### **Course Objectives:**

- To understand the basics of computer graphics, different display devices and applications of computer graphics.
- To learn about algorithmic development of graphics primitives like: point, line, circle, ellipse etc.
- To impart knowledge of 2D and 3D transformations on graphics objects.
- To familiarize with 2D Viewing and different clipping methods.
- To give a broad view of Projection and its types.

#### **Course Outcomes:**

- Knowledge of working of display systems.
- Skill to execute various Scan Conversion algorithms in laboratory so as to draw Graphics primitives.
- Familiarization with 2D and 3D graphics.
- Develop creativity to create 2D objects.

**Assessment Methodologies:** 

S.NO	DESCRIPTION	ТҮРЕ
1	Student Assignment	Direct
2	Internal Examination	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

Subject: GRAPHICS AND MULTIMEDIA LAB

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Graphics and Multimedia Lab	SEMESTER: VI
COURSECODE: BCA - 3294	COURSE TYPE: Practical
Practical class per week: 5	Duration of period: 60 minutes

Subject: PROJECT (INDUSTRIAL)

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Project	SEMESTER: VI
COURSECODE: BCA - 3295	COURSE TYPE: Software based Project
Practical class per week: 5	Duration of period: 60 minutes

Subject: GRAND VIVA

PROGRAMME: Computer Application	DEGREE:BCA
COURSE: Grand VIVA	SEMESTER: VI
COURSECODE: BCA - 3296	COURSE TYPE: Prepare for GRAND VIVA
Practical class per week: 4	Duration of period: 60 minutes