STUDENT HANDBOOK (BCA)

Welcome to Asian School of Business (ASB).

ASB is committed to advancement of knowledge and practice in management through excellence in education in the fields of business and management. Our academic program offers exhaustive management education with a practical approach and applied orientation. We focus on creating leaders of tomorrow for the real business world. ASB invests for the success of its students and supports them to form a good base for their career.

This **Student Handbook** has been prepared to provide students with information about campus resources and services available to them, student life inside the campus and general Institution procedures. This handbook also contains information about Vision, Mission and Core Values of Asian School of Business to apprise the students about our objectives and the subsequent outcomes we aim to achieve. The policies contained in this handbook are applicable for all students who are supposed to follow the same accordingly.

ASB makes this handbook available to each student and it is responsibility of every student to acquaint himself/herself with its contents.

By enrolling with ASB you agree to comply with all the rules and regulations of Institution. Ignorance of a policy/regulation will not be considered as an excuse for failure to observe it.

This student handbook covers all the important policies drafted for benefit of the students and their academic development. The student handbook mainly focuses upon the following:

- General Code of Conduct
- Evaluation System
- Academic and Administrative Policies and Procedures
- Syllabus

While every effort has been made to make this handbook as complete and accurate as possible, changes may occur at any time in future regarding norms, fees, syllabus etc. listed out in this handbook. However these changes shall be let known to you as and when they come into effect.

We wish you all the best and look forward to see you conquering the world in near future.

Vision

Growth with Education

Mission

In the current global context, we believe in developing the aspiring leaders and entrepreneurs who manage and create powerful organizations in the emerging corporate landscape.
Asian School of Business aims at creating highly intellect business mindset, promote best business practices and innovative techniques to attain desired organization goal and contribute to nation's economy at large.

Core Values

E: Excellence-Excellence in Education through Industry and Academia under one Umbrella

D: Dedication- Strong hub of Management, Directors, and Advisory Board with clear vision and sincere efforts

U: Unity-Unified staff and students

C: Clarity- Clear thought process for the accomplishment of Mission

A: Achievement- Keen to set a benchmark for the accomplishment of particular tasks and striving for success in achieving the same

T: Togetherness-Belongingness towards the Institution and society

I: Innovativeness- Value addition through innovative teaching-learning

O: Optimism- Positive mind framework for quality assurance and accepting the challenges in the world of Globalization

N: Nurturing- Grooming the personality as per the requirement of corporate world

BCA Programme Details

Asian School of Business is affiliated to Chaudhary Charan Singh University, Meerut and is committed to provide the learning and application of skills relevant in the global context. ASB offers a three-year full-time graduate programme in Computer Applications that enables students to develop intellectual and practical skills to get transformed into a highly technical human resource. At ASB, we are committed to your success and every effort will be made to ensure that your experience is an enriching and a rewarding one.

Programme Objectives

Bachelor of Computer Applications provides an integrated set of learning opportunities for students interested in mastering the skills and knowledge necessary for effectively participating in modern technical organizations. The objectives of the program include:

- ✓ Stimulating mental ability of the student in such a way that promotes creative thinking and results in innovations. Further, they will be prepared for continued learning throughout their career
- ✓ Students will have the positive perspectives and skills that create productive IT professionals
- ✓ The graduate program faculty will demonstrate an excellence in teaching, as well as evidence of meaningful professional and scholarly activities.

Program Outcomes

PO1: Domain Knowledge & Its Application

Apply knowledge of computing fundamentals, mathematics, and domain knowledge of computing models from defined problems and requirements.

PO2: Analytical Ability & Innovative Approach to Problem Solving

Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities providing innovative solutions to complex computing problems by designing or evaluating systems, components and processes.

PO3: Effective Communication

Effective Communication with the computing community/society about complex computing activities by writing effective reports, design documentation, effective presentations.

PO4: Value Based Leadership Abilities and Entrepreneurial Potential

Understand the principles of leadership and team building based on values and develop the attitude for taking calculated risks necessary for realizing the entrepreneurial potential.

Concerned Personnel

Asian School of Business

Name	Designation	May Contact for	E-Mail Address
Dr. Maroof Ahmad	Asst. Dean – ASB	Overall Concerns	maroof.ahmad@abs.edu.in
Dr. Sunita Verma	HOD – Department of Student Welfare (DSW)	Students related Issues	sunita.verma@abs.edu.in
Mr. Ravi Sharma	Asst. Dean – Corporate Resource Cell (CRC)	Internship & Final Placements	ravi.sharma@abs.edu.in
Dr. Shweta Batra	Controller of Examinations	Examination related Issues	shweta.batra@abs.edu.in
Programme Office	Academic Coordinator	Student Coordination	coordinatorasb@asb.edu.in

General Code of Conduct

1. Registration Fee submitted at the time of admission is charged one time and is not refundable.
2. In the event of confirmation for admission and payment of registration amount, ASB will invest for customized equipment, infrastructure, faculty etc. and hence no refund shall be tenable in the light of investment made by ASB.
3. In case of non-submission of the required documents due to reappearance/result awaited/result withheld/or any other reason, student need to ensure submission of the same on or before 27th August 2019, failing which the admission would stand cancelled. Extension for submission of the documents will be strictly as per University guidelines.
4. Non submission of documents will lead to cancellation of admission and the college will not be responsible for the same.
5. In case of leaving the course due to any reason, it is mandatory for a student to obtain "No Dues Certificate" to ensure system effectiveness.
6. If, in opinion of the Director, for any reason, continuance of a student in the College is detrimental to the best interest of College, he/she may be asked to leave the College, without assigning reason for the same.
7. The students shall fully abide by the norms and rules and regulations of ASB and submit themselves to the disciplinary action in event of violation of act of discipline.
8. Under the disciplinary action, the management is empowered to impose fine, suspend or even expel the concerned student in the interest of ASB.
9. Student should never try to encroach into privacy of the administrative area which, upon violation, may invite penalty as per the norms.
10. There should not be misuse of the Internet facility as provided in the labs. Students are not allowed to download pictures, movies, videos, unauthorized, objectionable content; in case of misusing the same, their act shall be viewed under the provisions of Cyber Laws.
11. Using mobile phones during the class is strictly prohibited. Recording the lecture or any conversation in between students or with the faculty or senior management will not be excused. This kind of act will lead to disciplinary action against the student(s) involved.
12. Any sort of electronic gadgets like cell phones, pagers, walkmans, disc mans, iPods etc. are not allowed to be used during the lectures. Strict disciplinary action shall be initiated against students violating the norms.

13. Listening Music inside class rooms or in corridors is strictly prohibited. Students are expected to maintain professional decorum by regulating their act, voice, actions etc. while they are in campus.
14. Students should not loiter within the College premises while the classes are going on.
15. Consumption of tobacco and tobacco products, alcohol, chewing of gutka, any intoxicants/drugs inside the institute is strictly prohibited. If anyone is found indulged in these activities, the student would be liable for fine and punishment and may even be rusticated in such a case.
16. Students shall do nothing either inside or outside the college that will in any way interfere with its orderly conduct and discipline.
17. Insubordination and unbecoming language or misconduct, on the part of a student is sufficient reason for his/her suspension or dismissal.
18. Any student found misbehaving in the class, library or computer lab with faculty/staff/fellow students will be severely punished. The nature of punishment will depend upon the severity of offence.
19. Every student must obtain on admission an Identity Card, which must have his/her photograph attested. He/she must use it whenever in the college premises, representing the college outside premises and present it for inspection on demand.
20. Every student is required to maintain a minimum of 75% attendance separately for lectures, tutorials, event/activities and/or practicals conducted for each semester.
21. In case of absence on account of illness, Asst. Dean-ASB should be informed by the parents of the concerned student personally. On resuming the college, student should report to the Asst. Dean-ASB along with prescription, supporting reports and the fitness certificate.
22. Students are not allowed to attend classes in other section of which he/she is not a part of.
23. No student shall collect any money or contribution for picnic, trip or educational visit to some place, get-together, study-notes, charity or any other activity without prior sanction from the Director.
24. No student shall be allowed to take part in the active politics.
25. No student shall communicate any information or write about matters dealing with the College administration to the Press/ Social Media or any other institution
26. Student should contribute towards keeping the campus and infrastructure clean. Any negligence on the part of student may lead to appropriate action as suggested by the authorities.
27. Writing on walls, pillars, toilets, furniture or corridors is prohibited and violation may lead to appropriate action as decided by the authorities.

28. Students shall be liable to pay fine along with the compensation if any damage/misuse of the equipment/infrastructure is reported to.
29. Any Society or Association of students will not be started without written permission of the authorities.
30. No person(s) shall be invited to address or entertain the students of institute without the permission of the concerned authority.
31. Carrying any valuables in the institute will be at the risk of the concerned student and institute will not accept any responsibility of the valuables lost inside campus.
32. Students applying for certificates, testimonials, etc. which requires the Director's signature on any kind of document or application should first contact the Academic Coordinator.
33. Students receiving Government or College Scholarships or any remission in fees must note that the grant and continuance thereof are subject to good behavior, regular attendance and satisfactory progress.
34. It is the responsibility of students to read the Notice Boards regularly for important announcements made by the College office from time to time. They will not be excused or given any concession on grounds of ignorance or not reading notices.
35. Any changes in the address/email Id/contact number of the student should be immediately updated to the ASB management for the effective communication.
36. For any self-infliction or infection of mental agony or problem developed, ASB management/authorities shall not be held responsible at any time during completion of the course/course tenure.

Additional Guidelines for BCA Students opting for educational trip to University of Southern California (USC), USA including Workshop at School of Cinematic Arts, USC

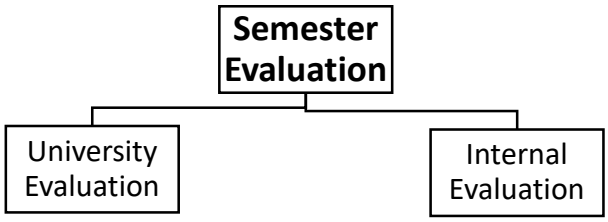
1. A minimum of 75% attendance in the concerned subjects is mandatory, failing which the student shall not be eligible to appear for Diploma in Business of Entertainment from AAFT and Workshop & Certification from School of Cinematic Arts, University of Southern California.
2. Workshop at School of Cinematic Arts, University of Southern California is scheduled after completion of 1st year of BCA programme, depending upon academic schedule of School of Cinematic Arts, University of Southern California, USA. Only the students with proven records (attendance, conduct, fee paid etc.) will be entitled for this workshop.
3. The concerned student has to submit his/her passport before the commencement of classes for the course and ensure that the passport is valid for the next three years from the date of commencement of classes for BCA Programme at Asian School of Business.
4. Travel to USC-SCA, Los Angeles, USA is subject to relevant Visa being granted by US embassy and that the student would be provided a maximum of two chances for Visa application. First

chance shall be provided in second year of the course and in case of visa rejection in first chance, second chance shall be provided in third year of the course. Thereafter, no further chance for USC-SCA Workshop shall be provided.

5. Visa application fee for the first time would be paid by the college, whereas in case of rejection of first application of visa due to any reason whatsoever, fee for visa application for second time shall have to be borne by the student.
6. It shall be sole responsibility of the student to apply for Visa as directed by the college and should present all the required documents for visa approval as demanded by the embassy.
7. Once the visa of a particular student is approved by the US embassy, the concerned student cannot withdraw from the scheduled travel for USC workshop under any circumstances whatsoever, and if it is done, he/she will not be entitled to claim any further chance to avail USC workshop and certification.

Matters not covered by the existing rules will rest at the absolute discretion of the Disciplinary Committee / Director of the Institute.

Examination and Evaluation System

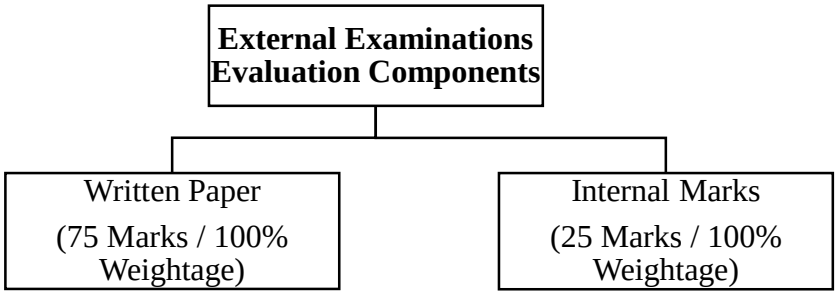


University Evaluation:

1. The external theory examination in each course will be held at the end of each semester as per the pattern prescribed by university.
2. Usually university examinations are conducted in the month of December and May, but is always at the discretion of university (the date and schedule of the examination is declared by university and is communicated through notifications).
3. As per the university norms presently, the examination centre will be in some other institute and reaching the centre on time is responsibility of the individual student.
4. Admit card for the university examinations needs to be acquired from the campus only.
5. The duration of Semester is at the discretion of the university and it has got the rights to reduce or extend the tenure.
6. Result declaration will be carried out as per the university norms.
7. The university has the right to modify the syllabus at any point of time.
8. The norms of promotion of a student from current semester to the next semester are specifically followed as per the norms of the university which are liable to change at any given time. The campus does not hold any responsibility for such changes.
9. The minimum passing marks in each paper shall be 40 of the total marks of internal assessment and university examination taken together. However the minimum passing marks in aggregate shall be 50% marks in each semester, all subjects taken together.
10. If a student fails in a course, the internal assessment awards would remain the same as he/she obtained in the first attempt.
11. If a student fails in 1 or 2 subjects or has less than 50% aggregate in a particular semester, he/she has to appear in these subjects in the subsequent semester (Odd semester backlog with odd semester and even with even semester) but in case a student fails in 3 or more subjects, the student will have to appear in all the subjects of that semester after completion of the 6^{th} semester.

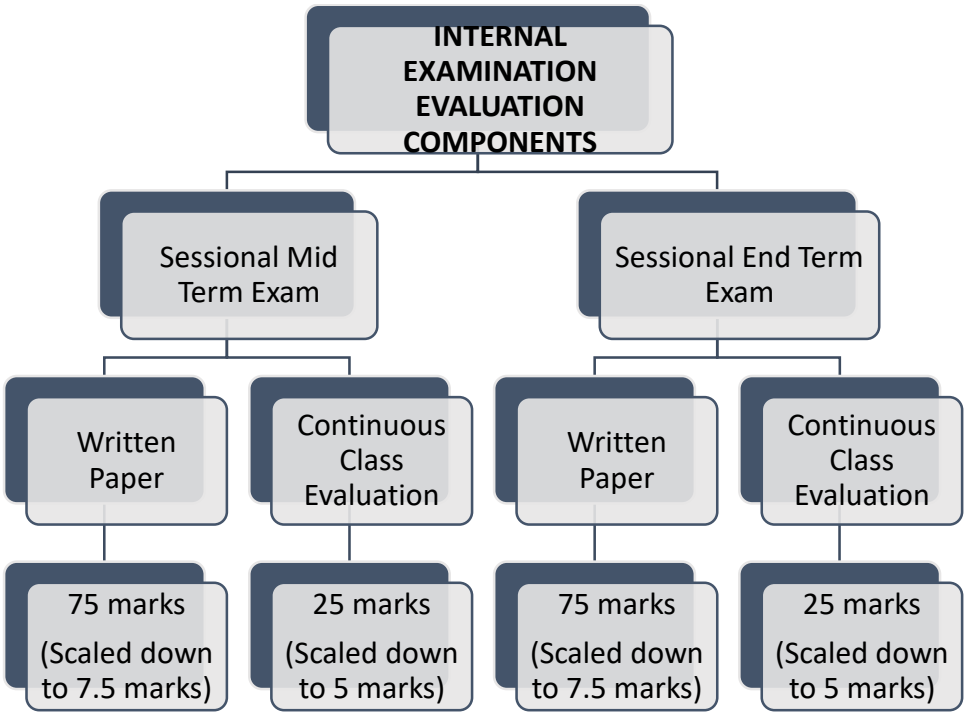
12. Anything related to university examination will be informed to students through college notice board and as per the updated norms of university, procedures will be followed.

Table-1



Internal Evaluation:

It comprises of Sessional Mid-term and Sessional End-term examinations and continuous class evaluation.



Continuous class evaluation includes:

1. Assignments: 10 marks
2. Class activities: 10 marks
3. Participation in Events and Activities: 5 marks

Total internal marks to be submitted to university per semester per subject are 25 marks which are divided as follows:

2 written examinations (Sessional Mid-term and Sessional End-term) of 75 marks each scaled down to 7.5 + 7.5 = 15 marks per subject.
Continuous class evaluation for the semester (Sessional Mid-term and Sessional End-term) of 25 marks each scaled down to 5 + 5 = 10 marks per subject.

1.1 Unfair Practices

Students are prohibited from resorting to unfair practices in the examinations or any of the other evaluation components as per the rules and regulations laid down by the Institution.
If students are found to be resorting to unfair practices, like

a. Carrying mobile phones inside the examination hall
b. Carrying any form of chit or any other paper with content written on it either related or not related to the subject
c. Having written anything on the skin and cloth
d. Talking to each other after entering the examination hall
e. Looking into answer sheet of other students
f. Showing answer sheet to other students
g. Writing anything on the Question Paper except roll number and enrollment number
h. Writing anything on the Admit cards.
i. Found talking to other students in the washroom and lobby area
j. Found with any study material inside / outside examination room including washrooms
k. Behaving in indisciplined manner
l. Causing disturbance to others etc.

they will be expelled from the examination hall and their answer script will be seized. Use of unfair practices noticed/ identified on the basis of the report submitted by the invigilator to the Controller of Examination or by the faculty member during invigilation, would result in cancellation of the examination in which he/ she has been found using unfair means or may also lead to the cancellation of all the examinations that he/she may or may not have written. He/ she may be subject to other punitive action as deemed fit.

1.2 Examination fees

S. No	Name of the Examination	Particular	Fees	Mode of Payment
1	Make-up	In case of absence from the examination	Rs. 300 per paper	DD or Cash
2	Re-appear	In case of less attendance in class	Rs. 500 per paper	DD or Cash

1.3 Make-up Examinations

In case of medical cases or other emergency circumstances, if the student is unable to write the examination, he/she will have to write make up examinations. The decision of conducting the make-up examinations will be at the discretion of Examinations Department of the Institute. Re-examination dates will be notified on Notice Board by the Controller of Examination. Students need to fill make-up examination form which has to be accompanied with the fees. Make-up examinations will be conducted only for Sessional Mid-term examinations.

1.4 Re-appear Examinations

The students debarred from the examination on account of attendance and disciplinary action will have to write the re-appear examination. The decision of conducting the re-appear examination will be at the discretion of the Examination Department of the college. Re-appear examination dates will be notified on Notice Board by the Controller of Examination well before the commencement of the examinations. Re-appear examinations will be conducted only for Sessional Mid-term examinations.

1.5 Make-up classes

Re-appear examinations will be conducted only after the recommendation of the Asst. Dean - ASB regarding fulfillment of 100% attendance of a student in make-up classes.

1.6 Re-evaluation / Rechecking/ Copy of Transcript/ Internal Revaluation

Students interested in rechecking /re-evaluation/ copy of their evaluated transcripts, may follow the prescribed guidelines. The applications for revaluation / rechecking/ copy of transcript/internal revaluation may be collected from and submitted to the controller of examinations within 3 days from the date of announcement of the result on the Notice Board. In case the last date falls on holiday or Sunday then next working day will be the last day of submission. The prescribed fee is as under:

S. No.	Particulars	Fees
1	Rechecking of Transcript	Rs. 500/- per paper
2	Revaluation of Transcript	Rs. 1000/- per paper
3	Copy of Transcript	Rs. 2000/- per paper
4	Internal Re-evaluation	Rs. 300/- per paper

Examination Department will re-evaluate /recheck the answer sheets within 5 days of receipt of the request.

Note:

1. **Rechecking of Transcript**: On receiving the application and prescribed fee from the student, marks allotted in the transcript would be re-totaled to check calculation error if any.
2. **Re-evaluation of Transcript**: On receiving the application and prescribed fee the transcript of the student would be re-evaluated by the subject specialist.
3. **Copy of Transcript**: On receiving the application and prescribed fee, the copy of transcript for the subject applied for will be shown and discussed with the student on a specific date of appointment.
4. **Internal Re-evaluation**: On the request of the student along with prescribed fee and application form, internal marks of the student in the applied subject would be re-checked and corrected if required.

1.7 Examination norms

1. Student should report to the examination hall 15 minutes before commencement of the examination. Once the exam starts, the student will not be allowed to enter without permission of the Controller of Examinations.
2. No student is allowed to leave the examination hall in the initial one hour and last half an hour after the commencement of the examination.
3. All the students are required to carry their hall ticket and college identity card in the examination hall else they will not be allowed to write the exam. In case of lost hall ticket, student shall have to pay a fine of Rs. 100.
4. It is mandatory for all students to be in college uniform on all examination days otherwise they will not be allowed to appear for the examination.
5. No student is allowed to write anything on the question paper except their enrollment number and roll number.
6. Books, study material, mobile phones, laptops, i-pods and other subject related material are strictly prohibited in the examination hall. Students keeping such valuable items outside the examination hall shall do so at his own risk. ASB will not be responsible for any loss, in such cases.
7. Students are not allowed to share stationery items with each other.

8. Students are not allowed to interact amongst themselves during the examination or with anybody outside the examination hall while the examination is going on.
9. Assembling of students in the lobby & washrooms also is not allowed during the examination hours.
10. Students while going to the washroom during examinations need to make proper entry in the In-Out sheet and should return back within 3 minutes. Any student taking longer time period can be denied entry in to the examination room by the invigilator.
11. The college will not be responsible for personal property left in the examination hall.
12. A candidate whose conduct is disturbing to other candidates and who persists in such behavior after receiving a warning from an invigilator shall be required to leave the examination hall.
13. Examination norms are applicable as soon as you enter the examination hall. If the candidate has any query(s), they should raise their hand and speak to the invigilator only.
14. Decision taken by invigilator during examinations will be final and binding on all students.

Rules for the Payment of Fees

1. The due dates for the submission of fees are stated in admission letter issued to student at time of the admission.
2. Non-submission of fee in accordance to the due dates stated will lead to the imposition of late fee submission fine as per the details mentioned below:

1st week after the due date	Rs. 100/- per day
2nd Week after the due date	Rs. 200/- per day
3rd Week after the due date	Rs. 500/- per day
4th Week after the due date	Rs. 700/- per day
After one month of the due date (Re-Registration Fee)	Rs. 45000/-

3. Non-submission of the fee even after one month of the due date will lead to Re-Registration as stated above.
4. Fees once deposited will not be refunded.
5. The management is authorized to take steps to ensure timely payment of the fees as and when required.
6. Notice for the fee submission or any additional action in case of defaulters will be displayed on Notice Board for the reference and perusal of the student accordingly.
7. Students availing education loan can collect their fee demand letter for the Bank process from the Accounts Department as and when stated as per the notice.
8. Notice displayed on Notice Board will be the only mode of sharing information. In case student misses to see notice, responsibility for the same will be levied on him/her.
9. As per the examination system, it is mandatory to get “no dues” cleared before commencement of the exams. In case of non-submission/partial submission of fees, “no dues” of the student will be pending and hence will not be allowed to appear for the exams, unless permitted by Department of Student Welfare.
10. For any extension required for the above, student should inform and approach Department of Student Welfare before the due date.
11. Students availing Hostel facilities need to deposit Fees on time as informed at the time of the admission and also need to ensure to adhere to the deadlines.

Further updates in rules, if any, will be informed to the students well in advance.

Library Rules & Regulations

1. The library shall remain open on all working days (Monday to Saturday) from 8:30 A.M to 6:00 P.M. Issue / return time of books and reading materials is 9:00 A.M. to 5:00 P.M.
2. Library membership is open to all students; however, they need to apply for the membership on the prescribed application form.
3. Students are eligible to get three text books issued through bar code on their Institute ID Card. Till the time a student is issued the permanent ID Card, a temporary ID Card in the prescribed format can be requested from Asst. Dean/HOD for getting the books issued. This temporary card has to be submitted back on the issuance of the permanent ID Card with bar code.
4. Library Membership is non-transferable. The students himself /herself shall be responsible for any misuse of his / her ID card. Exchanging ID cards among students is strictly prohibited.
5. The Institute ID Card should be preserved carefully as it is essential for establishing library membership. Loss of the Card should be reported immediately in writing to Asst. Dean/HOD. Issue of a duplicate card may be considered on a payment of Rs. 200/- (in case the card has been lost).
6. Books from the Circulation section shall be issued for a maximum 10 days at a time.
7. Books once issued will not be returned on the same day.
8. Request for reissuing the book will not be entertained if the "book request" is pending from other students.
9. Sub-lending of books is strictly forbidden.
10. Borrowers shall return the book on or before the due date, failing which an overdue fine of Rs.10/- per day per book will be levied upon. Producing "Medical Certificate" will not entitle a student an exemption from the fine. No book will be issued to the student unless he/she returns back the overdue books.
11. No student will be entitled to keep the book overdue on the pretext that he/she has got placement/job interview and he/she is not able to attend the college. The borrowed book should be returned on time to library failing which the usual fine will be levied on the student.

12. Books marked **"Not to be Issued/Reference Only"**, journals, magazines or newspapers shall not be issued to students.
13. The Library In-Charge reserves the right to recall any book issued even prior to the due date, if necessary.
14. Students are required to obtain a "No Dues Certificate" at the end of each semester. Defaulters will not be allowed to appear in the examination.
15. Borrowers shall be responsible for the safe return of books to the library. While borrowing a book, students must ensure that book is in good condition. Any damage must be brought to the notice of library staff. The student will have to either replace the book or will pay double the price of the book, if any damage or disfigurement of the book is noticed at the time of returning the book in the library. If any book is damaged or lost, the borrower shall have to replace the whole set or pay double the price of the set with fine amount.
16. Library is a place for making the best use of resources. Complete silence should be maintained in the library. Members are, therefore, advised not to indulge in conversation, consultation, discussion or demonstrative greetings of friends. Any defaulter may be suspended from the library for a period up to 15 days as decided by the Director based on the recommendation of the Library In-charge.
17. "Mobile phone" needs to be kept switched off or on silent mode before entering the library.
18. Bags, folders, personal books, magazines, ladies purse etc. are not allowed to be brought inside the library. Students, in their interest, are advised not to leave money in their bags, purses etc.
19. Visitors are not entertained inside the library without prior permission of the Library In-charge.
20. Stealing or damaging books/magazines/journals, etc. from the library or misbehavior with library staff shall be considered as an offence for which strict disciplinary action will be taken against the students concerned to the extent of expulsion from the institute.
21. Photocopying service is available for all students at nominal charges. Photocopying of library books & Journals may only be carried out within the copyright regulations. Before taking any book/journal for photocopying, permission must be obtained from the librarian or library staff on duty.
22. Director/Library In-Charge has the right to add, delete or amend any or all the above rules from time to time depending on the circumstances

Computer Lab Rules & Regulations

The Asian School of Business Computer Lab is for students currently enrolled at Noida Campus**.** To use the ASB computer lab, a student must possess the current student ID card. It is against policy for a student to let another person use his/her ID Card to gain access to the computer lab. If any student is found violating the above norms, his/her card will be confiscated.

1. Students need to present ID Card issued by Asian School of Business as and when requested by a Lab Technician.
2. Surfing/ Browsing of Social Media websites are strictly prohibited.
3. Students need to make an entry in computer lab while entering or leaving.
4. Students are supposed not to use the on/off switch to reboot the computers again and again.
5. Computer games should not to be played in the lab unless the games are required for an assignment**.**
6. Students need to be considerate towards other lab users as this is a common study area. One is supposed not make any noise inside the lab, nor talk on cell phones inside the lab. One may step outside the lab to attend phone call.
7. Any sort of food and drinks are not permitted inside the computer lab.
8. It is expected that students do not waste limited resources by printing extra copies one may not need. If something is to be printed, one needs to ensure to pick it up from the printer.
9. Students need to limit the printing. If one needs to print from Internet and don't know how long the document is, it is advisable to download the document and check to see how long it is. Those who print excessively will be asked to refrain from doing so. After breach for the third time, printing privileges may be revoked for concerned student.
10. Printing facility is available only for the Print items that are school related. Free printing is not for club flyers or for other personal use.
11. If other students are waiting to use the computer and one is not doing school related work, it is supposed to let the new comers use the computer. The primary purpose of the lab is to assist in school-related work.

12. Students should not install or download any software or modify or delete any system files on any lab computers.
13. CD-ROMs and other multimedia equipment are for Institute work only. Students should not use them for playing music or other recreational activities.
14. Students are supposed to respect the equipment. So one should not damage, remove or disconnect any labels, parts, cable or equipment.
15. Students are supposed not to read or modify other users' files that may be stored on the hard disk.
16. If one leaves the lab, it is advisable not to leave your personal belongings unattended. In any such case, College will not responsible for any theft.
17. Profanity inside the lab will not be tolerated.
18. Sleeping inside the lab is not permitted.
19. Breaching of copyright regulations will lead to strict punishments.
20. After using the computer, students are supposed to shut down the system & arrange the chairs properly before leaving.
21. Director/Lab In-Charge has the right to add, delete or amend any or all the above rules from time to time depending on the circumstances.

FAILURE TO COMPLY WITH ANY OF THE ABOVE-MENTIONED RULES MAY RESULT IN THE SUSPENSION OF LAB PRIVILEGES

Misinterpretation of these policies on your part does not constitute an excuse for improper action.

Failure to adhere to the rules may result in any or all of the following:

1. Revocation of computer Lab facilities
2. Suspension from the Computer Lab for a period as deemed suitable by Director or Asst. Dean - ASB.

Any disciplinary action taken will be in accordance with policies of Asian School of Business

Center for Skill Development-CSD

At Asian School of Business, the impact of a well-groomed, impressive personality & effective communication is well understood and that directs towards a strong impetus on overall personality development of the student. In sync with this mindset at ASB, an in-house Center for Skill Development (CSD) has been set up to cater to the demands of Corporate.

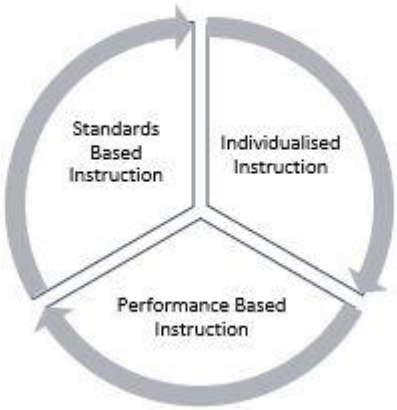
To increase the relevance with future employment market including promotion of self-employment, a two pronged initiative- Soft skills and Employability skills has been made an integral part of skill development under CSD. This further caters to various aspects of development in the different semesters: emphasizing on identifying and developing individual learning and development needs of the students, covering various behavioral & communication aspects, customized training solutions to hone the required competencies, employability skills and making students ready for the professional world

'Crafting Prodigy'

Under the CSD umbrella at ASB, a thriving and impactful mentoring program "Crafting Prodigy Program" is in place, where customized attention is the focus. Every student is assigned to a **'Crafter'** who gives personalized attention towards identifying the strengths and weaknesses of the individual student and focuses on building his/her capabilities and skills needed to succeed in a dynamic global economy; in other words, crafting his **'Prodigy'**.

A dossier incorporating an Individual Development Plan is created, mapping the entire journey of the prodigy through knowledge and skill development, to a well-groomed competent professional ready to take on the world.

Benefits of the programme*:* Everyone learns in different timeframes and in different ways.



Corporate Resource Cell (CRC)

Corporate Resource Cell (CRC) works toward providing best interface to students and aims to create a platform where students and industry can come together and explore opportunities for employment. Prime objective of CRC is to maintain strong Industry Institute linkages and strive for overall development and grooming of students according to industry requirements via regular workshops, symposia, seminars and conferences, at national & international level. CRC also offers Summer Internship Program (SIP), short term projects on regular basis throughout the course; conducts skill based training and workshops wherein students get to know about industry/profession expectations. This helps students in acquiring right skills for better placement opportunity and excel in their profession.

Following are the rules & norms of CRC department that student is expected to follow strictly during the course of study.

1) Placement support will be offered to students only after successful completion of academic compliance, Summer Internship Program (SIP) & CSD trainings.
2) Student must have qualified PAS (Professional Assessment Score)

3) Summer Internship Program (SIP):

a. Compulsory for all students at the end of 4th semester
b. SIP will be offered to students registered in CRC by duly filling "SIP Registration Undertaking" and recommendation of Asst. Dean - ASB
c. Duration of internship is 45 - 60 days wherein students are required to follow the company norms & requirements. They must follow discipline & guidelines suggested by faculty & industry mentors from time to time.
d. The SIP report has to be submitted to company & college as per the prescribed format and strictly following the submission deadlines.
e. Students not following the compliance, having negative feedback from the company; will be required to redo the Summer Internship as per compliance.

5) Final Placements:

a. Final placement assistance will be offered to students who have successfully met the academic compliance and completed SIP.
b. Assistance will be offered to students submitting the duly signed "Assistance Form" approved by Asst. Dean - ASB.
c. Final Placement recruitment process will start in the final semester

PROFESSIONAL ASSESSMENT SCORE (PAS)

Professional Assessment Score (PAS) is an integral part of your academic performance and placement skills set; this is an indicator for your individual performance and skill development which will help you in your personal as well as professional growth. Scores are calculated on basis of your interaction, involvement, performance and achievement in various parameters in activities by mentioned below:

Department	**Score**	**Min. Pass Score**	**Parameter**
Centre for Skill Development (CSD)	10	5	• Crafter meetings & feedback • Regular sessions & their outcome (communication, dressing & grooming, Resume, Language Sessions) • Skill based workshops
	15	15	Mandatory: • Technical Skill Development Workshops • Domain Specific Workshops • Professional Development & Aptitude Trainings
Academics Department	25	15	• Class performance • Maintaining 75% attendance • Overall behavior • Participation in Club Activities & Academic Events • Attendance in Club Activities & Academic Events
Examination Department	25	15	• Performance in Sessional Mid-Term examinations • Performance in Sessional End-Term examinations

Corporate Resource Cell (CRC)	25	15	• Attendance in CRC activities
			  ○ Industrial/Corporate visits
			  ○ On Campus – Guest Lectures
			  ○ Off Campus – Guest Lectures/ Conference/ Seminar (Nomination Basis) #
			• Placement readiness assessment
			• Summer Internship
			• Live Projects (Optional – Nomination Basis) #

Total Score	**100**		

 # - Live Projects are optional and will be offered on nomination basis, however, additional credit will be allocated to students opting for the same.

 # - Off Campus activities are also on nomination basis, however, students opting for the same will be offered additional credit

Important:

- Student needs to meet all above parameters and score a minimum of 15 marks in each, except in CSD where he/she needs to score a minimum of 5 marks
- PAS will be calculated Semester wise; 1st score will be shared during mid semester which will give you an opportunity to improve your score by semester end
- Defaulters will not be eligible for Summer Internship Programs
- A consolidated score of a minimum of 70% needs to be maintained to be eligible for final placement assistance

Department of Student Welfare

Department of Student Welfare encompasses everything that the institute undertakes to meet the personal and social needs of students and enhance their wellbeing. It involves recognizing, valuing and developing each student as a total and unique person in the context of society. The Student Welfare Program is the sum total of all the policies, structures and activities which are planned and implemented by the institute to promote student welfare. Asian School of Business endeavors to create an environment in which students are safe, secure and feel cared for.

Department of Student Welfare at Asian School of Business undertakes concern in reference to:

- ✓ Students Code of Conduct
- ✓ Attendance Norms and Rules and Regulation for availing Leaves
- ✓ Regulations / Directive for Banning ragging & Anti-ragging measures
- ✓ Non-Academic Student Grievance Policy & Academic Grievance Policy

1. **Student Code of Conduct**

a) Codes of conduct are already stated above in the handbook and adherence to the same is compulsory. Noncompliance may lead to the formation of ad-hoc discipline committee followed by the presentment of student involved in indiscipline behavior to show cause his/her act and justifying the act to the committee members.
b) The decision taken by the adhoc discipline committee will be subject to the approval of Department of Student Welfare and the Management.
c) The students involved in indiscipline act need to adhere to the decision taken thereupon.

2. Attendance Norms and Rules and Regulation for availing Leaves

Asian School of Business regards student's participation in class as essential to the learning process. Therefore, regular class attendance is required by all students in each course, failing which the students will be debarred from the examinations.

All students are expected to attend classes regularly and maintain at least 75% of attendance in respective subjects as per the CCS University norms. Leaves (unplanned/planned) with prior approval will be permitted upto 25% of total classes per subject, pre and post Sessional Mid-term examinations.

Further, in case of any emergency or critical situation, 10% of additional reserved leaves may be approved/ granted as per the discretion of Asst. Dean - ASB & HOD - Department of Student Welfare. As a disciplinary measure, any student will not be allowed inside the lecture room after 5 minutes of commencement of lecture. Entry is solely at discretion of the concerned faculty.

Compensatory attendance for classes missed due to participation in CRC activities like placement interviews, seminars, live projects, etc. or for responsibilities given in extracurricular events by college will be provided only when student emails the request for On Duty (OD) Leave to Asst. Dean - ASB and Academic Coordinator, ASB either in advance or latest by 2 PM on the same day keeping the activity In-Charge in cc. Compensation in attendance will be made on pro-rata basis, i.e., only for the duration in which the student was actively involved in the CRC/other assigned activity and not for the whole day. The duration of active participation mentioned in OD request will be subject to verification by the respective activity in-charge.

Guidelines for Availing Leaves:

a) In case of Planned Leave, student is supposed to write an Application addressing Asst. Dean - ASB and submit the same to the Faculty coordinator at least 48 hrs before the date of planned leave.

b) Planned leaves without prior information and approval will not be sanctioned.

c) In case of any unplanned Absence, student is supposed to inform Faculty coordinator or call at board number on the very first day of Absence followed by a written application or e-mail within 48 hrs of joining college back.

d) Any application received after 48 hrs i.e. after 2 days will be cancelled straight away irrespective of any excuse.

e) In case of leaving college early due to ill health or coming late in morning, application is mandatory and it requires approval on the same day. Student has to ensure that this kind of application will be in rare cases and hence not be made a regular affair.

f) No leaves will be sanctioned on the day of any Academic or CRC Event.

g) In case of any Medical Leave extending 2 days, Medical Prescription along with Medical Certificates and Copy of Reports is to be submitted.

h) Any application not approved/ On Hold, will be send to Academic Coordinator and students need to check the status of their application and contact Asst. Dean-ASB to discuss the same within one week from the date of Not approved/ On Hold leaves, to avoid last minute confusion, if any.

i) For any further clarification and additional leaves, the student may seek advice of Faculty Coordinator and act accordingly.

3. Anti-Ragging Measures

The aim of the regulations is to root out ragging in all its forms from the Institute by instituting stringent anti-ragging measures and provisions for strict punishments to defaulters.

Ragging within the Institute Campus including its School / Departments and Hostels is strictly prohibited. Ragging in any form is prohibited and same is applicable also in private lodges/buildings where the Institute's students may be staying. No student shall participate or abet or propagate ragging in any form.

The Institution has formed an "**Anti-Ragging Committee**" headed by HOD-Department of Student Welfare. It will comprise of select faculty members, students from the fresher category as well as seniors and a select lot of non-teaching staff.

This Committee will be fully and totally responsible to ensure that no incidence of ragging as given in these regulations takes place and will also monitor and ensure that the instructions of these regulations are followed fully at all times. The Committee will also maintain alert vigil at all times and ensure that the Anti-Ragging Squads/Anti-Ragging Control Cell of the Institution carry out their functions properly.

A number of **Anti-Ragging Squads** will be constituted. The number of squads will be based on the number of blocks / floors and strength of the students so that the Anti-Ragging Measures can be effectively implemented.

4. Grievance Redressal Cell

Students' Grievance Redressal Cell (GRC) works under the Department of Student Welfare with the aim to redress the grievances and complaints of students of Asian School of Business.

The purpose of the Grievance Redressal Cell is to maintain the healthy working atmosphere amongst staff, students & management of the Institute. This cell will help students to record their complaints and solve their problems related to academics, resources and personal grievances.

The cell will resolve their problems / complaints promptly and judiciously and shall also redress their grievances as and when required. As a result of this system, the Institute will have pleasant ambient atmosphere and good work culture with in-built goodwill and mutual understanding among the students.

The idea behind the working of the Cell is to uphold the dignity of the Institute by ensuring Strife free atmosphere in the Campus by promoting cordial Student to Student relationship and Student to Teacher relationship that acts as a bridge to develop a responsive and accountable attitude among all the students in order to maintain a harmonious educational atmosphere in the Institute.

The Cell will encourage the students to express their grievances / problems freely without any fear. As a bridge between the students and the staff / management, it will advise students to respect the right and dignity of one another and show utmost restraint and patience under all circumstances. The possible issues can be in reference to academic or non-academic reasons as mentioned below.

Academics Related	**Non Academics Related**
Time table scheduling	Service matters
Examination related issues	Maintenance issues
IT services	General Admin
Syllabus review	Any other issue
Library Related	

Process for reporting Grievance:

Any grievance related to academic or nonacademic issue needs to be reported to Department of Student Welfare in a form of written application addressing the HOD-Department of Student Welfare mentioning

- ✓ Name of the Student
- ✓ Batch Details
- ✓ Complaint against whom
- ✓ Reason of Grievance
- ✓ Brief of the Grievance
- ✓ Supporting document, if any.

Within 48 hours of receiving the application, Department of Student Welfare will arrange for pre hearing of the issue or will decide to form a committee/ad-hoc committee to discuss on the grievance and further come to a solution updating student about the same.

Holiday List for Students: Academic Year 2019-20

S No	Date	Day	Occasion
1	30th July 2019	Tuesday	Shivratri
2	12th August 2019	Monday	Eid-ul-Adha
3	15th August 2019	Thursday	Independence Day & Raksha Bandhan
4	24th August 2019	Saturday	Janmashtami
5	2nd September 2019	Monday	Ganesh Chaturthi
6	2nd October 2019	Wednesday	Gandhi Jayanti
7	7th - 8th October 2019	Monday - Tuesday	Dussehra Break
8	26th - 29th October 2019	Saturday - Tuesday	Diwali Break
9	12th November 2019	Tuesday	Guru Nanak Birthday
10	25th December 2019	Wednesday	Christmas
11	01st January 2020	Wednesday	New Year
12	13th January 2020	Monday	Lohri
13	9th March - 10th March 2020	Monday - Tuesday	Holi Break
14	6th April 2020	Monday	Mahavir Jayanti
15	10th April 2020	Friday	Good Friday
16	13th April 2020	Monday	Baisakhi
17	7th May 2020	Thursday	Buddha Purnima
18	24th May 2020	Sunday	Eid-ul-Fitr

Note: The dates in holiday calendar are tentative

Detailed Curriculum

Chaudhary Charan Singh University, Meerut

THREE YEARS BACHELOR OF COMPUTER APPLICATIONS PROGRAMME

BCA-101: Mathematics I

UNIT 1

Determinants

Determinants: Definition, Minors, Cofactors, Properties. Matrices: Definition, Types of Matrices, Addition, Subtraction, Scalar Multiplication and Multiplication of Matrices, Adjoint, Inverse, Crammers Rule, Rank of Matrix Dependence of Vectors, Eigen Vectors of a Matrix, Caley-Hamilton Theorem

UNIT 2

Limits & Continuity

Limit at a Point, Properties of Limit, Computation of Limits of Various Types of Functions, Continuity at a Point, Continuity Over an Interval, Intermediate Value Theorem, Type of Discontinuities

UNIT 3

Differentiation

Derivative, Derivatives of Sum, Differences, Product & Quotients, Chain Rule, Derivatives of Composite Functions, Logarithmic Differentiation, Rolle's Theorem, Mean Value Theorem, Expansion of Functions (Maclaurin's & Taylor's), Indeterminate Forms, L' Hospitals Rule, Maxima & Minima, Curve Tracing, Successive Differentiation & Leibnitz Theorem

UNIT 4

Integration

Integral as Limit of Sum, Fundamental Theorem of Calculus (without proof), Indefinite Integrals, Methods of Integration Substitution, By Parts, Partial Fractions, Reduction Formulae for Trigonometric Functions, Gamma and Beta Functions

UNIT 5

Vector Algebra

Definition of a Vector in 2 and 3 Dimensions; Double and Triple Scalar and Vector Product and physical interpretation of area and volume.

Reference Books

Book	Authors	Publication
Elementary Engineering Mathematics	BS Grewal	Khanna Publishers
Advanced Engineering Mathematics	HK Dass	S. Chand Publishing
Differential Calculus	Shanti Narayan	S. Chand Publishing
Integral Calculus	Shanti Narayan	S. Chand Publishing
Calculus	JP Singh	Ane Books India

BCA-102: Programming Principle & Algorithm

UNIT 1

Introduction to 'C' Language

History, Structures of 'C' Programming, Function as building blocks. Language Fundamentals, Character set, C Tokens, Keywords, Identifiers, Variables, Constant, Data Types, and Comments

UNIT 2

Operators

Types of operators, Precedence and Associativity, Expression, Statement and types of statements, Build in Operators and function, Console based I/O and related built in I/O function: printf(), scanf(), getch(), getchar(), putchar(); Concept of header files, Preprocessor directives: #include, #define

UNIT 3

Control structures

Decision making structures: If, If-else, Nested If-else, Switch; Loop Control structures: While, Do-while, for, Nested for loop; Other statements: break, continue, goto, exit.

UNIT 4

Introduction to problem solving

Concept: problem solving, Problem solving techniques (Trail & Error, Brain Storming, Divide & Conquer). Steps in problem solving (Define Problem, Analyze Problem, Explore Solution) Algorithms and Flowcharts (Definitions, Symbols), Characteristics of an algorithm Conditionals in pseudo-code, Loops in pseudo code Time complexity: Big-Oh notation, efficiency, Simple Examples: Algorithms and flowcharts (Real Life Examples)

UNIT 5

Simple Arithmetic Problems

Addition / Multiplication of integers, Determining if a number is +ve / -ve / even / odd, Maximum of 2 numbers, 3 numbers, Sum of first n numbers, given n numbers, Integer division, Digit reversing, Table generation for n, ab, Factorial, sine series, cosine series, ${}^{n}Cr$, Pascal Triangle, Prime number, Factors of a number, Other problems such as Perfect number, GCD numbers etc (Write algorithms and draw flowchart), Swapping

UNIT 6

Functions

Basic types of function, Declaration and definition, Function call, Types of function, Parameter passing, Call by value, Call by reference, Scope of variable, Storage classes, Recursion.

Reference Books

Book	**Authors**	**Publication**
Let us C	Yashwant Kanitkar	BPB Publications
Programming in C	E Balaguruswamy	Tata McGraw-Hill Publishing
Test your C Skills	Yashwant Kanitkar	BPB Publications
Algorithms	Kevin Wayne	Addison-Wesley Professional
Principles of Programming and Algorithms	Yemul RS	Nirali Publications
Programming in C	Dennis Richie	Prentice Hall
Programming Interviews Exposed: Coding Your Way Through the Interview	John Mongan	Wrox

BCA-103: Computer Fundamentals & Office Automation

UNIT 1

Introduction to Computers

Introduction, Characteristics of Computers, Block diagram of Computer, Types of Computers with features, Mini Computers, Micro Computers, Mainframe Computers, Super Computers, Types of Programming Languages (Machine Languages, Assembly Languages, High Level Languages)

Data Organization, Drives, Files, Directories, Types of Memory (Primary and Secondary) RAM, ROM, PROM, EPROM, Secondary Storage Devices (FD, CD, HD, Pen drive), I/O Devices (Scanners, Plotters, LCD, Plasma Display) Number Systems, Introduction to Binary, Octal, Hexadecimal system Conversion, Simple Addition, Subtraction, Multiplication

UNIT 2

Algorithm and Flowcharts

Algorithm: Definition, Characteristics, Advantages and disadvantages, Examples Flowchart: Definition, Define symbols of flowchart, Advantages and disadvantages, Examples

UNIT 3

Operating System and Services in O.S

DOS– History, Files and Directories, Internal and External Commands, Batch Files, Types of O.S

UNIT 4

Windows Operating Environment

Features of MS– Windows, Control Panel, Taskbar, Desktop, Windows Application, Icons, Windows Accessories, Notepad, Paintbrush

UNIT 5

Editors and Word Processors

Basic Concepts, Examples: MS-Word, Introduction to desktop publishing

UNIT 6

Spreadsheets and Database packages

Purpose, usage, command, MS-Excel, Creation of files in MS-Access, Switching between application, MS-PowerPoint

Reference Books

Book	**Authors**	**Publication**
Fundamentals of Computers	Sinha & Sinha	BPB Publications
Fundamentals of Computers	V. Rajaraman	BPB Publications
MS-Office 2000	Steve Sagman	Peachpit Press

BCA-104: Principles of Management

UNIT 1

Nature of Management:

Meaning, Definition, it's nature purpose, importance & Functions, Management as Art, Science & Profession- Management as social System Concepts of management-Administration-Organization, Management Skills, Levels of Management.

UNIT 2

Evolution of Management Thought:

Contribution of F.W.Taylor, Henry Fayol, Elton Mayo, Chester Barhard & Peter Drucker to the management thought. Business Ethics & Social Responsibility: Concept, Shift to Ethics, Tools of Ethics.

UNIT 3

Functions of Management: Part-I

Planning– Meaning, Need & Importance, Types, Process of Planning, Barriers to Effective Planning, Levels – advantages & limitations. Forecasting- Need & Techniques

Decision making- Types, Process of rational decision making & techniques of decision making. Organizing– Elements of organizing & processes: Types of organizations, Delegation of authority– Need, difficulties in Delegation, Decentralization

Staffing – Meaning & Importance, Principles, Communication Types & Importance

UNIT 4

Functions of Management: Part-II

Motivation- Importance, theories

Leadership- Meaning, styles, qualities & function of leader

Controlling- Need, Nature, importance, Process & Techniques, Total Quality Management

Coordination- Need, Importance

UNIT 5

Management of Change: Models for Change, Force for Change, Need for Change, Alternative Change Techniques, New Trends in Organization Change, Stress Management.

UNIT 6

Strategic Management

Definition, Classes of Decisions, Levels of Decision, Strategy, Role of different Strategist, Relevance of Strategic Management and its Benefits, Strategic Management in India

Reference Books

Book	**Authors**	**Publication**
Principles & Practices of Management	Dr. L.M.Parasad	Sultan Chand & Sons – New Delhi
Essential of Business Administration	K. Aswathapa	Himalaya Publishing House
Business Organization & Management	Dr. Y.K.Bhushan	Sultan Chand & Sons – New Delhi
Management: Concept and Strategies	J.S. Chandan	Vikas Publishing House Private Ltd
Business Environment and Policy – A book on Strategic Management/ Corporate Planning	Francis Cherunilam	Himalaya Publishing House, 2001 Edition
Business Organization and Management	Thelma Talloo	Tata McGraw Hill
Principles of Management	Tripathi, Reddy	Tata McGraw Hill
Essential of Management	Horold Koontz, Iteinz Weibrich	McGraw Hills International
Management Theory & Practice	J.N.Chandan	Vikas Publishing House Private Ltd

BCA-105: Computer Laboratory and Practical Work of Office Automation

Practicals will be based on syllabus of **Office Automation** and shall cover Unit 3, Unit 4, Unit 5, Unit 6 of the above mentioned subject

Reference Books

Book	**Authors**	**Publication**
Fundamentals of Computers	Sinha & Sinha	BPB Publications
Fundamentals of Computers	V. Rajaraman	BPB Publications
MS-Office 2000	Steve Sagman	Peachpit Press
Computer Today	Suresh Basandra	Galgotia Publications Pvt Ltd
Unix Concepts and Application	Sumitabha Das	McGraw Hill Education; 4e

BCA-106: Business Communication

UNIT 1

Means of Communication

Meaning and Definition, Process, Functions, Objectives, Importance, Essentials of good communication, Communication barriers, 7C's of Communication

UNIT 2

Types of Communication

Oral Communication: Meaning, nature and scope, Principle of effective oral communication, Techniques of effective speech, Media of oral communication (Face-to-face conversation, Teleconferences, Press Conference, Demonstration, Radio Recording, Dictaphone, Meetings, Rumour, Demonstration and Dramatisation, Public address system, Grapevine, Group Discussion, Oral report, Closed Circuit TV). The art of listening, Principles of good listening

UNIT 3

Written Communication

Purpose of writing, Clarity in Writing, Principle of Effective writing, Writing Techniques, Electronic Writing Process

UNIT 4

Business Letters & Reports

Need and functions of business letters, Planning & layout of business letter, Kinds of business letters, Essentials of effective correspondence, Purpose, Kind and Objective of Reports, Writing Reports.

UNIT 5

Drafting of business letters

Enquiries and replies, Placing and fulfilling orders, Complaints and follow-up Sales letters, Circular letters Application for employment and resume

UNIT 6

Information Technology for Communication

Word Processor, Telex, Facsimile (Fax), E-mail, Voice mail, Internet, Multimedia, Teleconferencing, Mobile Phone Conversation, Video Conferencing, SMS, Telephone Answering Machine, Advantages and limitations of these types.

Topics Prescribed for workshop/skill lab

Group Discussion, Mock Interview, Decision Making in a Group

Reference Books

Book	**Authors**	**Publication**
Business Communication, 2e	Meenakshi Raman & Prakash Singh	Oxford University Press
Business Communication Today, 14e	Courtland L. Bovee, C. AllenPaul, John V.Thill	Pearson
Effective Business Communication	Asha Kaul	PHI Learning Pvt. Ltd.

BCA-107: Computer Laboratory and Practical Work of Programming Principle & Algorithm

Practicals shall be based on syllabus of Programming Principle & Algorithm and shall cover Unit III, IV, V and VI of the above mentioned syllabus

Reference Books

Book	Authors	Publication
Let us C	Yashwant Kanitkar	BPB Publications
Programming in C	E Balaguruswamy	Tata McGraw-Hill
Test your C Skills	Yashwant Kanitkar	BPB Publications
Algorithms	Kevin Wayne	Addison-Wesley Professional
Principles of Programming and Algorithms	Yemul RS	Nirali Publications
Programming in C	Dennis Richie	Prentice Hall India
Programming Interviews Exposed: Coding Your Way Through the Interview	John Mongan	Wrox
Clean Code	Robert C. Martin	Prentice Hall
Code Complete: A Practical Handbook of Software Construction	Steve McConnell	Microsoft Press
Programming with C	Byron Gottfried, Jitender Chhabra	McGraw Hill Education

BCA-201: Mathematics II

UNIT 1

Sets

Sets, Subsets, Equal Sets Universal Sets, Finite and Infinite Sets, Operation on Sets, Union, Intersection and Complements of Sets, Cartesian Product, Cardinality of Set, Simple Applications.

UNIT 2

Relations and Functions

Properties of Relations, Equivalence Relation, Partial Order Relation Function: Domain and Range, Onto, Into and One to One Functions, Composite and Inverse Functions, Introduction of Trigonometric, Logarithmic and Exponential Functions

UNIT 3

Partial Order Relations and Lattices

Partial Order Sets, Representation of POSETS using Hasse diagram, Chains, Maximal and Minimal Point, Glb, lub, Lattices & Algebraic Systems, Principle of Duality, Basic Properties, Sublattices, Distributed & Complemented Lattices

UNIT 4

Functions of Several Variables

Partial Differentiation, Change of Variables, Chain Rule, Extrema of Functions of 2 Variables, Euler's Theorem.

UNIT 5

3d Coordinate Geometry

3D Coordinate Geometry: Coordinates in Space, Direction Cosines, Angle Between Two Lines, Projection of Join of Two Points on a Plane, Equations of Plane, Straight Lines, Conditions for a line to lie on a plane, Conditions for Two Lines to be Coplanar, Shortest Distance Between Two Lines, Equations of Sphere, Tangent plane at a point on the sphere.

UNIT 6

Multiple Integration

Double Integral in Cartesian and Polar Coordinates to find Area, Change of Order of Integration, Triple Integral to Find Volume of Simple Shapes in Cartesian Coordinates.

Reference Books

Book	**Authors**	**Publication**
Discrete Mathematical Structure	Kolman Busby Ross	PHI
Discrete Mathematics	SK Sarkar	S. Chand
Discrete Mathematics	Rosen	Mc Graw Hill

BCA-202: C Programming

UNIT 1

Arrays

Definition, declaration and initialization of one dimensional array; Accessing array elements; Displaying array elements; Sorting arrays; Arrays and function; Two- Dimensional array: Declaration and Initialization, Accessing and Displaying, Memory representation of array [Row Major, Column Major]; Multidimensional array

UNIT 2

Pointers

Definition and declaration, Initialization; Indirection operator, address of operator; pointer arithmetic; dynamic memory allocation; arrays and pointers; function and pointers

UNIT 3

Strings

Definition, declaration and initialization of strings; standard library function: strlen(), strcpy(), strcat(), strcmp(); Implementation without using standard library functions

UNIT 4

Structures

Definition and declaration; Variables initialization; Accessing fields and structure operations; Nested structures; Union: Definition and declaration; Differentiate between Union and structure

UNIT 5

Introduction C Preprocessor

Definition of Preprocessor; Macro substitution directives; File inclusion directives; Conditional compilation

Bitwise Operators

Bitwise operators; Shift operators; Masks; Bit field

UNIT 6

File handling

Definition of Files, Opening modes of files; Standard function: fopen(), fclose(), feof(), fseek(), fewind();Using text files: fgetc(), fputc(), fscanf()

Command line arguments

Reference Books

Book	**Authors**	**Publication**
Let us C	Yashwant Kanitkar	BPB Publications
Programming in C	E Balaguruswamy	Mc Graw Hill
Test your C Skills	Yashwant Kanitkar	BPB Publications
Programming in C	Brian W. Kernighan, Dennis M. Ritchie	PHI, Private Ltd
Programming Interviews Exposed: Coding Your Way Through the Interview	John Mongan	Wrox; 4e

BCA-203: Organisation Behaviour

UNIT 1

Fundamentals of Organizational Behaviour

Nature, Scope, Definition and Goals of Organizational Behaviour; Fundamental Concepts of Organizational Behaviour; Models of Organizational Behaviour; Emerging aspects of Organizational Behaviour: Meaning Cultural Diversity, Managing the Perception Process

UNIT 2

Perception, Attitude, Values and Motivation

Concept, Nature, Process, Importance, Management Behavioural aspect of Perception, Effects of employee attitudes; Personal and Organizational Values; Job Satisfaction; Nature and Importance of Motivation; Achievement Motive; Theories of Work Motivation: Maslow's Need Hierarchy Theory, McGregors's Theory 'X' and Theory 'Y'

UNIT 3

Personality

Definition of Personality, Determinants of Personality; Theories of Personality- Trait and Type Theories, The Big Five Traits, Myers-Briggs Indicator; Locus of Control, Type A and Type B, Assessment of Personality

UNIT 4

Work Stress

Meaning and definition of Stress, Symptoms of Stress; Sources of Stress: Individual Level, Group Level, Organizational Level; Stressors, Extra Organizational Stressors; Effect of Stress – Burnouts; Stress Management – Individual Strategies, Organizational Strategies; Employee Counselling

UNIT 5

Group Behaviour and Leadership

Nature of Group, Types of Groups; Nature and Characteristics of team; Team Building, Effective Teamwork; Nature of Leadership, Leadership Styles; Traits of Effective Leaders

UNIT 6

Conflict in Organizations

Nature of Conflict, Process of Conflict; Levels of Conflict – Intrapersonal, Interpersonal; Sources of Conflict; Effect of Conflict; Conflict Resolution, Meaning and types of Grievances & Process of Grievances Handling.

Reference Books

Book	**Authors**	**Publication**
Organisational Behavior	Prasad, L.M.	Sultan Chand and Sons
Organizational Behavior	Stephen P. Robbins	Pearson
Organizational Behavior	Anjali Ghanekar	Everest Publishing House
Organisational Theory and Behavior	Sharma, R.A.	Tata McGraw Hill Education
Organizational Behavior Human Behavior at Work	J.W. Newstrom	Tata McGraw Hill
Organizational Behavior through Indian Philosophy	N.M.Mishra	Himalaya Publication House

BCA-204: Digital Electronics & Computer Organization

UNIT 1

Logic gates and circuit

Gates (OR, AND, NOR, NAND, XOR & XNOR); Demogran's laws; Boolean laws, Circuit designing techniques (SOP, POS, K-Map)

UNIT 2

Combinational Building Blocks

Multiplexes; Decoder; Encoder; Adder and Subtractor

UNIT 3

Memories

ROMs, PROMs, EPROMs, RAMs, Hard Disk, Floppy Disk and CD-ROM

UNIT 4

Sequential Building Blocks

Flip-Flop (RS, D, JK, Master-slave & & T flip-flops); Registers & Shift registers; Counters; Synchronous and Asynchronous Designing method

UNIT 5

Memory Organization: Basic cell of static and dynamic RAM; Building large memories using chips; Associative memory; Cache memory organization and Virtual memory organization

Reference Books

Book	Authors	Publication
Digital Logic and Computer Design	M.M. Mano	PHI, 1998
Digital Electronics	G. K. Kharate	Oxford University Press
Digital Electronics	Subrata Ghoshal	Cengage India Private Limited
Digital Electronics	Ghoshal Subrata	Cengage

BCA-205: Financial Accounting & Management

UNIT 1

Overview- Meaning and Nature of Financial Accounting, Scope of Financial Accounting, Financial Accounting & Management Accounting, Accounting concepts & convention, Accounting standards in India

UNIT 2

Basics of accounting- Capital & Revenue items, Application of Computer in Accounting Double Entry System, Introduction to Journal, Ledger and Procedure for Recording and Posting, Introduction to Trail Balance, Preparation of Final Account, Profit & Loss Account and related concepts, Balance Sheet and related concept

UNIT 3

Financial statement analysis: Ratio analysis, Funds flow analysis, concepts, uses, Preparation of funds flow statement, simple problem, Cash flow analysis, Concepts, uses, preparation of cash flow statement, simple problem, Break–Even analysis

UNIT 4

Definition nature and Objective of Financial Management, Long Term Sources of Finance, Introductory idea about capitalization, Capital Structure, Concept of Cost of Capital, introduction, importance, explicit & implicit cost, Measurement of cost of capital, cost of debt

UNIT 5

Concept & Components of working Capital, Factors Influencing the Composition of working Capital, Objectives of working Capital Management – Liquidity Vs. Profitability and working capital policies. Theory of working capital: Nature and concepts

UNIT 6

Cash Management, Inventory Management and Receivables Management

Reference Books

Book	Authors	Publication
Introduction to Accountancy	Maheshwari, S.N; Maheshwari, Suneel K; Maheshwari, Sharad K.	Vikas Publishing
Fundamentals of Accounting	Gupta R.L. & Radhaswamy	Sultan Chand
Financial Accounting	Hanif, M; Mukherjee, A.	Mc Graw Hill
Financial Management	R P Rustagi	Taxmann
Financial Management	I M Pandey	Vikas Publishing

BC-206: Computer Laboratory and Practical Work of C Programming

Practicals will be based on syllabus of **C Programming** and shall cover Units III, IV, V and VI of the above mentioned subject

Book	**Authors**	**Publication**
Let us C	Yashwant Kanitkar	BPB Publications
Programming in C	E Balaguruswamy	Mc Graw Hill
Test your C skills	Yashwant Kanitkar	BPB Publications
Programming in C	Brian W. Kernighan, Dennis M. Ritchie	PHI, Private Ltd.
Programming Interviews Exposed: Coding Your Way Through the Interview	John Mongan	Wrox; 4e

BCA-301: Object Oriented Programming Using C++

UNIT 1

Introduction

Introducing Object–Oriented Approach, Relation to other paradigms {Functional, Data decomposition}.

Basic terms and ideas

Abstraction, Encapsulation, Inheritance, Polymorphism, Review of C, Difference between C and C++ - cin, cout, new, delete, operators.

UNIT 2

Classes and Objects

Encapsulation, information hiding, abstract data types, Object & classes, attributes, methods, C++ class declaration, State identity and behaviour of an object, Constructors and destructors, instantiation of objects, Default parameter value, object types, C++ garbage collection, dynamic memory allocation, Metaclass / abstract classes.

UNIT 3

Inheritance and Polymorphism

Inheritance, Class hierarchy, derivation– public, private & protected, Aggregation, composition vs classification hierarchies, Polymorphism, Categorization of polymorphism techniques, Method polymorphism, Polymorphism by parameter, Operator overloading, Parameteric Polymorphism

UNIT 4

Generic function

Template function, function name overloading, overriding inheritance methods, Run time polymorphism, Multiple Inheritance.

UNIT 5

Files and Exception Handling

Streams and files, Namespaces, Exception handling, Generic Classes

Reference Books

Book	Authors	Publication
Object Oriented Programming in C++	Balaguruswamy	McGraw-Hill Education
Object Oriented Programming using C++	R.Lafore	Galgotia Publications
Mastering C++	A.R.Venugopal, Rajkumar, T. Ravishanker	TMH
The C programming Lang	S.B.Lippman & J. Lajoie	Person ECL - Dennis Ritchie
Object Oriented Programming using C++"	D.Parasons	BPB Publications

BCA-302: Data Structure Using C & C++

UNIT 1

Introduction, Characteristics Array, Representation of single and multidimensional arrays; Sprase arrays – lower and upper triangular matrices and Tridiagonal matrices with Vector Representation also.

UNIT 2

Stacks and Queues

Introduction and primitive operations on stack; Stack application; Infix, postfix, prefix expressions; Evaluation of postfix expression; Conversion between prefix, infix and postfix, introduction and primitive operation on queues, D- queues and priority queues.

UNIT 3

Lists

Introduction to linked lists; Sequential and linked lists, operations such as traversal, insertion, deletion searching, Two way lists and Use of headers

UNIT 4

Trees

Introduction and terminology; Traversal of binary trees; Recursive algorithms for tree operations such as traversal, insertion, deletion; Binary Search Tree

UNIT 5

B-Trees

Introduction, Invention of B-Tree; Statement of the problem; Indexing with binary search trees; a better approach to tree indexes; B-Trees; working up from the bottom; Example for creating a B-Tree

UNIT 6

Sorting Techniques; Insertion sort, selection sort, merge sort, heap sort, searching Techniques: linear search, binary search and hashing

Reference Books

Book	Authors	Publication
Fundamentals of Data structures	E.Horowiz and S.Sahani	Galgotia Book Source Pvt. Ltd., 2003
Data Structures Using C	Tenenbaum, Aaron M.	Pearson
Data Structures Using C	Reema Thareja	Oxford; 2e
Data Structures & Algorithms Using C++: Theory Design & Object-Oriented Implementation	Salaria, R.S.	Khanna Book Publishing
Data Structures Through C in Depth	S. K. Shrivastava, Deepali Shrivastava	BPB Publications
Data Structures & Algorithms Interview Questions You'll Most Likely Be Asked: 6 (Job Interview Questions)	Vibrant Publishers	Vibrant Publishers; 3e

BCA-303: Computer Architecture & Assembly Language

UNIT 1

Basic computer organization and design, Instructions and instruction codes, Timing and control/ instruction cycle, Register/ Types of register/ general purpose & special purpose registers/ index registers, Register transfer and micro operations/ register transfer instructions, Memory and memory function, Bus/ Data transfer instructions, Arithmetic logic micro-operations/ shift micro-operations, Input/ Output and interrupts, Memory reference instructions, Memory interfacing memory/ Cache memory.

UNIT 2

Central Processing Unit

General Register Organization/ stacks organizations instruction formats, addressing modes, Data transfer and manipulation. Program control reduced computer, pipeline/ RISC/ CISC pipeline vector processing/ array processing.

Arithmetic Algorithms: Integer multiplication using shift and add, Booth's algorithm, Integer division, Floating-point representations.

UNIT 3

Computer Arithmetic

Addition, subtraction and multiplication algorithms, divisor algorithms, floating point, arithmetic operations, decimal arithmetic operations, decimal arithmetic operations.

UNIT 4

Input – Output Organization

Peripheral devices, Input/output interface, ALU Asynchronous Data transfer, mode of transfer, priority interrupts, Direct memory Address (DMA), Input/ Output processor (IOP), serial communication.

UNIT 5

Evaluation of Microprocessor

Overview of Intel 8085 to Intel Pentium processors Basic microprocessors, architecture and interface, internal architecture, external architecture memory and input/ output interface.

UNIT 6

Assembly language, Assembler, Assembly level instructions, macro, use of macros in I/C instructions, program loops, programming arithmetic and logic subroutines, Input-Output programming.

Reference Books

Book	**Authors**	**Publication**
Computer Architecture	M.M. Mano	PHI, 1998
Computer Organization and Architecture	Singh Ikvinderpal	Khanna Publishers
Principles of Computer Organization and Assembly Language	Juola Patrick	Pearson
Introduction to Assembly Language Programming	Dandamudi Sivarama P	Springer
Microprocessor & Assembly Language Programming	Mrs. Deepali A Godse	Technical Publications

BCA-304: Business Economics

UNIT 1

The Scope and Method of Economics, the Economic Problem: Scarcity & Choice, The Price Mechanism, Demand & Supply Equilibrium: The Concept of Elasticity and it's Applications. **The Production Process:** output decisions – Revenues Costs and Profit Maximisation **Laws of returns & Returns to Scale:** Economics and Diseconomies of scale.

UNIT 2

Market Structure: Equilibrium of a firm and Price, Output Determination under Perfect Competition Monopoly, Monopolistic Competition & Oligopoly

UNIT 3

Macro Economic Concerns

Inflation, Unemployment, Trade-Cycles, Circular Flow upto Four Sector Economy, Government in the Macro Economy: Fiscal Policy, Monetary Policy, Measuring national Income and Output

UNIT 4

The World Economy – WTO, Globalisation, MNC's, Outsourcing, Foreign Capital in India, Trips, Groups of Twenty (G-20), Issues of dumping, Export-Import Policy 2004-2009

Reference Books

Book	**Authors**	**Publication**
Business Economics	H L Ahuja	S. Chand Publishing
Managerial Economics	Dominick Salvator	McGraw-Hill Book Company
Essentials of Business Economics	D N Dwivedi	Vikas Publishing
Macroeconomics	Andrew B. Abel, Ben S. Bernanke, Dean Croushore	Pearson
Business Economics	Ferfuson P.R., Rothchild, R and Fergusen G.J.	Macmillan, Hampshire, 1993
Principles of Economics	Karl E.Case & Ray C. Fair	Pearson Education
The Essence of Business Economics	Nellis, Joseph, Parker David	Prentice Hall

BCA-305: Elements of Statistics

UNIT 1

Population, Sample and Data Condensation

Definition and scope of statistics, concept of population and simple with Illustration, Raw data, attributes and variables, classification, frequency distribution, Cumulative frequency distribution.

UNIT 2

Measures of Central Tendency

Concept of central Tendency, requirements of good measures of central tendency, Arithmetic mean, Median, Mode, Harmonic Mean, Geometric mean for grouped and ungrouped data

UNIT 3

Measures of Dispersion:

Concept of dispersion, Absolute and relative measure of dispersion, range variance, Standard deviation, Coefficient of variation

UNIT 4

Permutations and Combinations

Permutations of 'n' dissimilar objects taken 'r' at a time (with or without repetitions), ${}^{n}P_{r}$ = n!/(n-r) !(without proof). Combinations of 'r' objects taken from 'n' objects, ${}^{n}C_{r}$ = n!/(r!(n-r)!) (without proof) . Simple examples, Applications

UNIT 5

Sample space, Events and Probability

Experiments and random experiments, Ideas of deterministic and non-deterministic experiments; Definition of sample space, discrete sample space, events; Types of events, Union and intersections of two or more events, mutually exclusive events, Complementary event, Exhaustive event; Simple examples.

Classical definition of probability, Addition theorem of probability without Proof (upto three events are expected). Definition of conditional probability Definition of independence of two events, simple numerical problems

UNIT 6

Statistical Quality Control

Introduction, control limits, specification limits, tolerance limits, process and product control; Control charts for X and R; Control charts for number of defective {n-p chart}, control charts for number of defects {c - chart}

Reference Books

Book	**Authors**	**Publication**
Fundamental of Statistics	SC Gupta	Sultan Chand
Fundamental of Statistics	DN Elhance	Kitab Mahal
Statistical Quality Control	DC Montogomery	John Wiley
Fundamental of Statistics	Goon Das and Gupta	World Press
Introduction of Mathematical Statistics	Hogg and Craig	McMillan
Business Statistics	JK Sharma	Pearson
Statistical Methods	SP Gupta	Sultan Chand & Sons

BCA-306: Computer Laboratory and Practical Work of OOPS

Practicals will be based on syllabus of **Object Oriented Programming** and shall cover Unit 2, Unit 3, Unit 4, Unit 5 of Syllabus from the above subject

Reference Books

Book	**Authors**	**Publication**
Object Oriented Programming in C++	Balaguruswamy	McGraw-Hill Education
Object Oriented Programming using C++	R.Lafore,	Galgotia Publications
Mastering C++	A.R.Venugopal, Rajkumar, T. Ravishanker	TMH
The C programming Lang	S.B.Lippman & J. Lajoie	Pearson ECL - Dennis Ritchie
Object Oriented Programming using C++"	D.Parasons	BPB Publications

BCA-307: Computer Laboratory and Practical Work of DS

Practicals will be based on syllabus of **Data Structures** and shall cover Unit 3, Unit 4, Unit 5, Unit 6 from syllabus of above subject

Reference Books

Book	**Authors**	**Publication**
Fundamentals of Data structures	E.Horowiz and S.Sahani	Galgotia Book Source Pvt. Ltd., 2003
Data Structures Using C	Tenenbaum, Aaron M.	Pearson
Data Structures Using C	Reema Thareja	Oxford; 2e
Data Structures & Algorithms Using C++ : Theory Design & Object-Oriented Implementation	Salaria, R.S.	Khanna Book publishing
Data Structures Through C in Depth	S. K. Shrivastava, Deepali Shrivastava	BPB Publications
Data Structures & Algorithms Interview Questions You'll Most Likely Be Asked: 6 (Job Interview Questions)	Vibrant Publishers	Vibrant Publishers; 3e

BCA-401: Computer Graphics & Multimedia Application

UNIT 1

Introduction: The Advantages of Interactive Graphics, Representative Uses of Computer Graphics, Classification of Application Development of Hardware and software for computer Graphics, Conceptual Framework for Interactive Graphics, Overview, Scan: Converting Lines, Scan Converting Circles, Scan Converting Ellipses.

UNIT 2

Hardcopy Technologies, Display Technologies, Raster-Scan Display System, Video Controller, Random-Scan Display processor, Input Devices for Operator Interaction, Image Scanners, and Working exposure on graphics tools like Dream Weaver, 3D Effects etc

Clipping

Southland- Cohen Algorithm, Cyrus-Beck Algorithm, Midpoint Subdivision Algorithm

UNIT 3

Geometrical Transformation

2D Transformation, Homogeneous Coordinates and Matrix Representation of 2D Transformations, composition of 2D Transformations, the Window-to-Viewport Transformations, Introduction to 3D Transformations Matrix.

UNIT 4

Representing Curves & Surfaces

Polygon meshes parametric, Cubic Curves, Quadric Surface

Solid Modelling

Representing Solids, Regularized Boolean Set Operation primitive Instancing Sweep Representations, Boundary Representations, Spatial Partitioning Representations, and Constructive Solid Geometry Comparison of Representations

UNIT 5

Introductory Concepts: Multimedia Definition, CD-ROM and the multimedia highway, Computer Animation (Design, types of animation, using different functions)

UNIT 6

Uses of Multimedia, Introduction to making multimedia – The stage of Project, hardware & software requirements to make good multimedia skills and Training opportunities in Multimedia Motivation for Multimedia usage

Reference Books

Book	**Authors**	**Publication**
Computer Graphics	D.Harn & Baker	Prentice Hall of India, 1986
Computer Graphics	Rajiv Chopra	S Chand Publishing;
Computer Graphics	Samit Bhattacharya	Oxford University Press
Computer Graphics, Multimedia and Animation	Malay K. Pakhira	PHI

BCA-402: Operating System

UNIT 1

Introduction, What is an operating system, Simple Batch Systems, Multi-programmed Batch systems, Time- Sharing Systems, Personal Computer Systems, Parallel systems, Distributed Systems, Real- Time Systems

Memory Management: Background, Logical versus physical Address space, swapping, Contiguous allocation, Paging, Segmentation

Virtual Memory: Demand Paging, Page Replacement, Page- replacement Algorithms, Performance of Demand Paging, Allocation of Frames, Thrashing, Other Considerations

UNIT 2

Processes: Process Concept, Process Scheduling, Operation on Processes

CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms, Multiple – Processor Scheduling.

Process Synchronization: Background, The Critical – Section Problem, Synchronization Hardware, Semaphores, Classical Problems of Synchronization

UNIT 3

Deadlocks: System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock prevention, Deadlock Avoidance, Deadlock Detection, Recovery from Deadlock

UNIT 4

Device Management: Techniques for Device Management, Dedicated Devices, Shared Devices, Virtual Devices; Input or Output Devices, Storage Devices, Buffering, Secondary Storage Structure: Disk Structure, Disk Scheduling, Disk Management, Swap- Space Management, Disk Reliability

UNIT 5

Information Management: Introduction, A Simple File system, General Model of a File System, Symbolic File System, Basic File System, Access Control Verification, Logical File System, Physical File system File– System Interface; File Concept, Access Methods, Directory Structure, Protection, Consistency Semantics File – System Implementation: File – System Structure, Allocation Methods, Free- Space Management

Reference Books

Book	**Authors**	**Publication**
Operating System Concepts	Silberschatz; Galvin; Gagne	Pearson
Operating Systems	Madnick E., Donovan J	Tata McGraw Hill
Operating Systems	Tannenbaum	PHI, 4e
Operating Systems	Deitel, Deitel and Choffnes	Pearson
UNIX Systems for Modern Architectures	Schimmel	Addison Wesley

BCA-403: Software Engineering

UNIT 1

Software Engineering: Definition and paradigms, A generic view of software engineering

UNIT 2

Requirements Analysis: Statement of system scope, isolation of top level processes and entitles and their allocation to physical elements, refinement and review.

Analyzing a problem, creating a software specification document, review for correctness, consistency, and completeness

UNIT 3

Designing Software Solutions: Refining the software Specification; Application of fundamental design concept for data, architectural and procedural designs using software blue print methodology and object oriented design paradigm; Creating design document: Review of conformance to software requirements and quality

UNIT 4

Software Implementation: Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style and review of correctness and readability

UNIT 5

Software Maintenance: Maintenance as part of software evaluation, reasons for maintenance, types of maintenance (Perceptive, adoptive, corrective), designing for maintainability, techniques for maintenance

UNIT 6

Comprehensive examples using available software platforms/case tools, Configuration Management

Reference Books

Book	Authors	Publication
Software Engineering: A Practitioner's Approach, 8e	Roger S. Pressman	McGraw-Hill Education
Software Engineering	K.K.Aggarwal	New Age International Publishers
Software Engineering Concept	Fairley	McGraw Hill Education
Fundamentals of Software Engineering	Rajib Mall	PHI
Pankaj Jalote's Software Engineering: A Precise Approach	Pankaj Jalote	Wiley
Advanced Software Engineering	Ikvinderpal Singh	Khanna Publishing

BCA-404: Optimization Techniques

UNIT 1

Linear programming

Central Problem of linear Programming various definitions included Statements of basic theorem and also their properties, simplex methods, primal and dual simplex method, transport problem, tic-tac problem and its solution. Assignment problem and its solution, Graphical Method Formulation, Linear Programming Problem

UNIT 2

Queuing Theory

Characteristics of queuing system, Classification of Queuing Model Single Channel Queuing Theory, Generalization of steady state M/M/1 queuing models (Model-I, Model-II)

UNIT 3

Replacement Theory

Replacement of item that deteriorates replacement of items that fail, Group replacement and individual replacement

UNIT 4

Inventory Theory

Cost involved in inventory problem- single item deterministic model economics long size model without shortage and with shorter having production rate infinite and finite

UNIT 5

Job Sequencing

Introduction, solution of sequencing problem, Johnson's algorithm for "n" jobs through "2" machines

Reference Books

Book	**Authors**	**Publication**
Introduction to Operation Research	BE Gillet	McGraw Hill Education
Operations Research: An Introduction	HA Taha	Pearson
Operations Research	Kanti Swarup	Sultan Chand
Operations Research	SD Sharma	Kedar Nath Ram Nath
Operations Research	Hira & Gupta	S. Chand & Company Ltd.
Operations Research	Hiller & Liebermann	McGraw-Hill Education

BCA-405: Computer Laboratory and Practical Work of Computer Graphics & Multimedia Applications

Practicals shall be based on syllabus of **Computer Graphics & Multimedia Application** and shall be based on Unit 2, Unit 3, Unit 5 of the above mentioned subject

Reference Books

Book	**Authors**	**Publication**
Computer Graphics	D.Harn & Baker	Prentice Hall of India, 1986
Computer Graphics	Rajiv Chopra	S Chand Publishing;
Computer Graphics	Samit Bhattacharya	Oxford University Press
Computer Graphics, Multimedia and Animation	Malay K. Pakhira	PHI

BCA-406: Mathematics - III

UNIT 1

Complex Variables: Complex Number System, Algebra of Complex Numbers, Polar Form, Powers and Roots, Functions of Complex Variables, Elementary Functions, Inverse Trigonometric Function

UNIT 2

Sequence, Series and Convergence: Sequence, Finite and Infinite Sequences, Monotonic Sequence, Bounded Sequence, Limit of a Sequence, Convergence of a Sequence, Series, Partial Sums, Convergent Series, Theorems on Convergence of Series (statement, alternating series, conditional convergent), Leibnitz Test, Limit Comparison Test, Ratio Test, Cauchy's Root Test, Convergence of Binomial and Logarithmic Series, Raabe's Test, Logarithmic Test, Cauchy's Integral Test (without proof)

UNIT 3

Vector Calculus: Differentiation of Vectors, Scalar and Vector Fields, Gradient, Directional Derivatives, Divergence and Curl and their Physical Meaning

UNIT 4

Fourier Series: Periodic Functions, Fourier series, Fourier Series of Even and Odd Functions, Half Range Series

UNIT 5

Ordinary Differential Equations of First Order: Variable - Separable Method, Homogeneous Differential Equations, Exact Differential Equations, Linear Differential Equations, Bernoulli's Differential Equations, Differential Equations of First Order and First Degree by Integrating Factor

UNIT 6

Ordinary Differential Equations of Second Order: Homogenous Differential Equations with Constant Coefficients, Cases of Complex Roots and Repeated Roots, Differential Operator, Solutions by Methods of Direct Formulae for Particular Integrals, Solution by Undetermined Coefficients, Cauchy Differential Equations, (only Real and Distinct Roots) Operator Method for Finding Particular Integrals (Direct Formulae)

Reference Books

Book	**Authors**	**Publication**
Advanced Engineering Mathematics	Mathur & Jaggi	Khanna Publishers
Advanced Engineering Mathematics	HK Dass	S. Chand
Advanced Engineering Mathematics	BS Grewal	Khanna Publishers
Advanced Engineering Mathematics	Erwin Kreyszig	Wiley

BCA-501: Introduction to DBMS

UNIT 1

Introduction: Characteristics of database approach, data models, DBMS architecture and data independence.

UNIT 2

E-R Modelling: Entity types, Entity set, attribute and key, relationships, relation types, roles and structural constraints, weak entities, enhanced E-R and object modelling, Sub classes; Super classes, inheritance, specialization and generalization.

UNIT 3

File Organization: Indexed sequential access files; implementation using B & B++ trees, hashing, hashing functions, collision resolution, extendible hashing, dynamic hashing approach implementation and performance.

UNIT 4

Relational Data Model: Relational model concepts, relational constraints, relational algebra

SQL: SQL queries, programming using SQL.

UNIT 5

EER and ER to relational mapping: Data base design using EER to relational language.

UNIT 6

Data Normalization: Functional Dependencies, Normal form up to 3rd normal form.

Concurrency Control: Transaction processing, locking techniques and associated, database recovery, security and authorization. Recovery Techniques, Database Security

Reference Books

Book	**Authors**	**Publication**
SQL, PL/SQL: The Programming Language of Oracle	Ivan Bayross	BPB Publications

BCA-502: Java Programming and Dynamic Webpage Design

UNIT 1

Java Programming: Data types, control structured, arrays, strings, and vector, classes (inheritance, package, exception handling) multithreaded programming

UNIT 2

Java applets, AWT controls (Button, Labels, Combo box, list and other Listeners, menu bar) layout manager, string handling (only main functions)

UNIT 3

Networking (datagram socket and TCP/IP based server socket) event handling, JDBC: Introduction, Drivers, Establishing Connection, Connection Pooling.

UNIT 4

HTML: use of commenting, headers, text styling, images, formatting text with <FONT>, special characters, horizontal rules, line breaks, table, forms, image maps, <META> tags, <FRAMESET> tags, file formats including image formats.

UNIT 5

Java Servlets: Introduction, HTTP Servlet Basics, The Servlet Lifecycle, Retrieving Information, Sending HTML Information, Session Tracking, Database Connectivity

UNIT 6

Java Server Pages: Introducing Java Server Pages, JSP Overview, Setting Up the JSP Environment, Generating Dynamic Content, Using Custom Tag Libraries and the JSP Standard Tag Library, Processing Input and Output.

Reference Books

Book	Authors	Publication
Java: The Complete Reference	Schildt, Herbert	McGraw Hill Education Pvt. Ltd.
Programming with Java a Primer	Balagurusamy, E.	McGraw Hill Education Pvt. Ltd.
Web Technologies Part -II	Bayross, Ivan	BPB Publications
Beginning Java-2	Ivor Horton	SPD Publication
Java Servlet Programming	Jason Hunter	O'Reilly
Dynamic Web Publishing	Shelley Powers	2nd Ed. Techmedia, 1998
Java Server Pages	Hans Bergsten	3rd Ed. O'Reilly

BCA-503: Computer Network

UNIT 1

Basic Concepts: Components of data communication, distributed processing, standards and organizations. Line configuration, topology, Transmission mode, and categories of networks

OSI and TCP/IP Models: Layers and their functions, comparison of models.

Digital Transmission: Interfaces and Modems: DTE-DCE Interface, Modems, Cable modems

UNIT 2

Transmission Media: Guided and unguided, Attenuation, distortion, noise, throughput, propagation speed and time, wavelength, Shannon capacity, comparison of media

UNIT 3

Telephony: Multiplexing, error detection and correction: Many to one, One to many, WDM, TDM, FDM, Circuit switching, packet switching and message switching.

Data link control protocols: Line discipline, flow control, error control, synchronous and asynchronous protocols, character and bit oriented protocols, Link access procedures.

Point to point controls: Transmission states, PPP layers, LCP, Authentication, NCP. **ISDN:** Services, Historical outline, subscriber's access, ISDN Layers and broadcast ISDN.

UNIT 4

Devices: Repeaters, bridges, gateways, routers, The Network Layer; Design issues, Routing algorithms, Congestion control Algorithms, Quality of service, Internetworking, Network-Layer in the internet.

UNIT 5

Transport and upper layers in OSI Model: Transport layer functions, connection management, functions of session layers, presentation layer and application layer.

Reference Books

Book	Authors	Publication
"Computer Networks";	A.S.Tanenbaum,	Pearson Education Asia, 4e
"Data Communication and Networking", 3rd Ed.	Behrouz A.Forouzan	Tata McGraw Hill, 2004
Computer Networks: A Top - Down Approach	Forouzan	McGraw Hill Education
Computer Networks for Students	Dr. Rakesh Kumar Mandal	Shroff/X-Team
Computer Networks: A Systems Approach	Larry L. Peterson	Morgan Kaufmann

BCA-504: Numerical Methods

UNIT 1

Roots of Equations: Bisections Method, False Position Method, Newton's Raphson Method, Rate of convergence of Newton's method.

UNIT 2

Interpolation and Extrapolation: Finite Differences, The operator E, Newton's Forward and Backward Differences, Newton's dividend differences formulae, Lagrange's Interpolation formula for unequal Intervals, Gauss's Interpolation formula, Starling formula, Bessel's formula, Laplace-Everett formula.

UNIT 3

Numerical Differentiation Numerical Integration: Introduction, direct methods, maxima and minima of a tabulated function, General Quadratic formula, Trapezoidal rule, Simpson's One third rule, Simpson's three- eight rule.

UNIT 4

Solution of Linear Equation: Gauss's Elimination method and Gauss's Siedel iterative method.

UNIT 5

Solution of Differential Equations: Euler's method, Picard's method, Fourth-order Ranga – Kutta method.

Reference Books

Book	**Authors**	**Publication**
Numerical Analysis	Scarbourogh	Oxford & IBH Publishers
Introduction to Numerical Analysis	Gupta & Bose	Academic Press
Numerical Analysis	SS Shastri	PHI

BCA-505: Computer Laboratory and Practical Work of DBMS

Practicals will be based on syllabus of **Data Base Management System** comprising of Unit 4 with concepts from Unit 2 to Unit 6 of the Syllabus

Reference Books

Book	**Authors**	**Publication**
"Database Systems Concepts", 4th Edition	Abraham Silberschatz, Henry Korth, S.Sudarshan,	McGraw Hill, 1997
Introduction to Database Management Systems	Kahate	Pearson
Database Management System (DBMS): A Practical Approach	Rajiv Chopra	S Chand
Introduction to Database Systems	ITL Education Solutions Limited	Pearson Education
Database Management	Raghu Ramakrishnan, Johannes Gehrke	McGraw Hill Education

BCA-506: Computer Laboratory and Practical Work of Java Programming and Dynamic Webpage Design

Reference Books

Book	Authors	Publication
Java: The Complete Reference	Schildt, Herbert	McGraw Hill Education Pvt. Ltd.
Programming with Java a Primer	Balagurusamy, E.	McGraw Hill Education Pvt. Ltd.
Web Technologies Part -II	Bayross, Ivan	BPB Publications
Beginning Java-2	Ivor Horton	SPD Publication
Java Servlet Programming	Jason Hunter	O'Reilly
Dynamic Web Publishing	Shelley Powers	2nd Ed. Techmedia, 1998
Java Server Pages	Hans Bergsten	3rd Ed. O'Reilly

Practical will be based on syllabus of **Java Programming & Website Design** and shall be based on complete Syllabus

BCA-507: Minor Project

Evaluation will be based on Summer Training held after fourth semester and will be conducted by the college committee.

BCA-508: Viva-Voce on Summer Training

Viva shall be conducted based on Summer Training of four weeks after the end of fourth Semester and will be conducted by the college committee.

BCA-601: Computer Network Security

UNIT 1

Introduction: Attack, Services and Mechanism, Model for Internetwork Security.

Cryptography: Notion of Plain Text, Encryption, Key, Cipher Text, Decryption and cryptanalysis; Public Key Encryption, digital Signatures and Authentication.

UNIT 2 Network Security:

Authentication Application: Kerveros, X.509, Directory Authentication Service, Pretty Good Privacy, S/Mime.

UNIT 3

IP security Architecture: Overview, Authentication header, Encapsulating Security Pay Load combining Security Associations, Key Management.

UNIT 4

Web Security: Requirement, Secure Socket Layer, Transport Layer Security, and Secure Electronic Transactions.

UNIT 5

Network Management Security: Overview of SNMP Architecutre-SMMPVI1 Communication Facility, SNMPV3.

UNIT 6

System Security: Intruders, Viruses and Relate Threats, Firewall Design Principles. Comprehensive examples using available software platforms/case tools, Configuration Management.

Reference Books

Book	Authors	Publication
Networks Security Essentials: Application Standards,	W. Stallings	Pearson, Education, 2000
Cryptography and Network Security - Principles and Practice	Stallings William	Pearson Education
Computer Networks	Mayank Dave	Cengage Learning India Private Limited
Network Security a Practical Approach	Harrington	Elsevier
Security in Computing	Charles P. Pfleeger, Shari Lawrence Pfleeger, Jonathan Margulies	Pearson Education
Network Security	Pinkesh Anand	Centrum Press

BCA-602: Information System: Analysis Design & Implementation

UNIT 1

Overview of System Analysis and Design: Systems Development Life Cycle; concept and Models: requirements determination, logical design, physical design, test planning, implementation, planning and performance evaluation, communication, interviewing, presentation skills; group dynamics; risk and feasibility analysis; group based approaches, JAD, structures walkthroughs, and design and code reviews; prototyping; database design software quality metrics; application categories software package evaluation and acquisition.

UNIT 2

Information Requirement Analysis: Process modelling with physical logical data flow diagrams, data modelling with logical entity relationship diagrams.

UNIT 3

Developing a Proposal: Feasibility study and cost estimation

System Design: Design of input and control, design of output and control, file design/database design, process, user interface design, prototyping; software constructors; documentation

UNIT 4

Application Development Methodologies and CASE tools: Information engineering structured system analysis and design, and object oriented methodologies for application development data modelling, process modelling, user interface design, and prototyping, use of computer aided software engineering (CASE) tools in the analysis design and implementation of information systems

UNIT 5

Design and Implementation on OO Platform: Object oriented analysis and design through object modelling technique, object modelling, dynamic modelling and functional object oriented design and object oriented programming systems for implementation, object oriented data bases

UNIT 6

Managerial issues in Software Projects: Introduction to software markets; planning of software projects, size and cost estimates; project scheduling; measurement of software quality and productivity, ISO and capability maturity models for organizational growth

Reference Books

Book	**Authors**	**Publication**
Analysis and Design of Information Systems	Rajaraman V.	Prentice-Hall of India
Systems Analysis and Design	Dennis, Wixom, Roth	Wiley
System Analysis, Design and Management Information System-Made Simple	Satish Jain	BPB

BCA-603: E-Commerce

UNIT 1

Introduction to E-Commerce: The Scope of Electronic Commerce, Definition of Electronic Commerce, Electronic E-commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce, E-Commerce in Perspective.

Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, Porter's Model, First Mover Advantage Sustainable Competitive Advantage, Competitive Advantage using E -Commerce, Business Strategy, Introduction to Business Strategy, Strategic Implications of IT, Technology, Business Environment, Business Capability, Exiting Business Strategy, Strategy Formulation & Implementation Planning, E-Commerce Implementation, E-Commerce Evaluation.

UNIT 2

Business-to-Business Electronic Commerce: Characteristics of B2B EC, Models of B2B, Procurement Management Using the Buyer's Internal Marketplace, Just in Time Delivery, Other B2B Models, Auctions and Services from Traditional to Internet Based EDI, Integration with Back-end Information System, The Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: The Nuts and Bolts, EDI & Business.

UNIT 3

Internet and Extranet: Automotive Network Exchange, The Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, Intranet Application Case Studies, Considerations in Intranet Deployment, The Extranets, The structures of Extranets, Extranet products & services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues.

Electronic Payment Systems: Is SET a failure, Electronic Payments & Protocols, Security Schemes in Electronic payment systems, Electronic Credit card system on the Internet, Electronic Fund transfer and Debit cards on the Internet, Stored – value Cards and E- Cash, Electronic Check Systems, Prospect of Electronic Payment Systems, Managerial Issues.

UNIT 4

Public Policy: From Legal Issues to Privacy: EC- Related Legal Incidents, Legal Incidents, Ethical & Other Public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency & Censorship, Taxation & Encryption Policies, Other Legal Issues: Contracts, Gambling & More, Consumer & Seller Protection in EC.

UNIT 5

Infrastructure For EC: It takes more than Technology, A Network of Networks, Internet Protocols, Web- Based client/ Server, Internet Security, selling on the web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues.

Reference Books

Book	**Authors**	**Publication**
E-commerce	Kamlesh K Bajaj, Debjani Nag	McGraw Hill
E-Commerce	David Whiteley	Tata McGraw Hill, 2000
Frontiers of E-Commerce	Ravi Kalkota	Pearson
Electronic Commerce	Eframi Turban, Jae Lee, David King, K. Michale Chung	Pearson Education
E-Business and E-Commerce Management: Strategy, Implementation and Practice, 5e	Chaffey	Pearson Education India
E-Commerce: Fundamentals and Applications	Herry Chan, Raymond Lee	Wiley

BCA-604: Knowledge Management

UNIT 1

Business Intelligence and Business Decisions: Modeling Decision Process; Decision support systems; Group decision support and Groupware Technologies

UNIT 2

Executive Information and support Systems: Business Expert System and AI, OLTO & OLAP; Data Warehousing; Data Marts, Data Warehouse architecture; Tools for data warehousing

UNIT 3

Multi- Dimensional analysis: Data mining and knowledge discovery; Data mining and Techniques; Data mining of Advance Databases

UNIT 4

Knowledge Management Systems: Concept and Structure KM Systems, techniques of knowledge management appreciation & limitations

Reference Books

Book	**Authors**	**Publication**
Knowledge Management	Shelda Debowski	Wiley (2007)
Knowledge Management Case Book: Siemens Best Practises	Thomas H. Davenport, Gilbert J. B. Probst, Von Pierer, Heinrich	Wiley
Knowledge Management in Theory and Practice	Kimiz Dalkir, Jay Liebowitz	Amazon

BCA-605: Major Project

Evaluation will be held after fourth semester and will be conducted by the college committee only

BCA-606: Presentation/Seminar based on Major Project

Presentation/Seminar based on Major Project will be evaluated by external examiner only.

QUALIFYING PAPER

ENVIRONMENTAL STUDIES (CODE-008)

Unit 1

Multidisciplinary Nature of Environmental Studies: Definition, Scope and Importance, Need for Public Awareness.

Unit 2

Natural Resources: Renewable and Non-renewable Resources: Natural resources and associated problems: -

a) Forest Resources: use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

b) Water Resources: use and over-utilization of surface and ground water, floods, drought, and conflicts over water, dams-benefits and problems.

c) Mineral Resources: use and exploitation, environmental effects of extracting and using mineral resources, case studies.

d) Food Resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

e) Energy Resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies

f) Land Resources: Land as a resource; land degradation, man induced landslides, soil erosion and desertification.

g) Role of an individual in conservation of natural resources.

h) Equitable use of resources for sustainable lifestyles

Unit 3

Ecosystems

• Concept of an ecosystem

• Structure and function of an ecosystem

• Producers, consumers and decomposers

• Energy flow in the ecosystem

• Ecological succession

• Food chains, food webs and ecological pyramids

• Introduction, types, characteristic features, structure and function of the following ecosystem:

a) Forest ecosystem

b) Grassland ecosystem

c) Desert ecosystem

d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit 4

Biodiversity and its Conservation

• Introduction – Definition: genetic, species and ecosystem diversity.

• Biogeographical classification of India

• Value of biodiversity: Consumptive use, productive use, social, ethical, and aesthetic and option values.

• Biodiversity at global, National and local levels.

• India as a mega-diversity nation

• Hot-spots of biodiversity.

• Threats to biodiversity: Habitat loss, poaching of wildlife, man-wildlife conflicts.

• Endangered and endemic species of India

• Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

Unit 5

Environmental Pollution Definition: Causes, effects and control measures of: -

a) Air pollution

b) Water pollution

c) Soil pollution

d) Marine pollution

e) Noise pollution

f) Thermal pollution

g) Nuclear pollution

• Solid waste Management: Causes, effects and control measures of urban and industrial wastes.

• Role of an individual in prevention of pollution

• Pollution case studies

• Disaster Management: Floods, earthquake, cyclone and landslides.

Unit 6

Social Issues and the Environment

• From Unsustainable to Sustainable development

• Urban problems related to energy.

• Water conservation, rain water harvesting, watershed management

• Resettlement and rehabilitation of people; its problems and concerns. Case Studies

• Environmental Ethics: Issues and possible solutions.

• Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies.

• Wasteland reclamation & Consumerism and waste products

• Environment Protection Act.

• Air (Prevention and Control of Pollution) Act

• Water (Prevention and Control of Pollution) Act

• Wildlife Protection Act & Forest Conservation Act

• Issues involved in enforcement of environmental legislation

• Public awareness

Unit 7

Human Population and the Environment

• Population growth, variation among nations.

• Population explosion: Family Welfare Programme.

• Environment and human health

• Human Rights

• Value Education

• Women and Child Welfare

• Role of Information Technology in Environment and human health

• Case Studies

Unit 8

Field Work

• Visit to a local area to document environmental assets-river / forest / grassland / hill / mountain.

• Visit to a local polluted site – Urban / Rural / Industrial / Agricultural

• Study of common plants, insects, birds.

• Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5 lecture hours).

Reference Books

Book	Authors	Publication
Text book for Environment Studies, UGC	Erach Barucha	Orient BlackSwan
Environmental Studies: from Crisis to Cure	R. Rajagopalan	Oxford University Press
Fundamentals of Environmental Studies	Mahua Basu	Cambridge University Press
Fundamental Concepts in Environmental Studies	Mishra D.D.	S Chand & Company
Perspectives in Environmental Studies	Anubha Kaushik	New Age International Publishers

Clubs at Asian School of Business

We not only welcome diverse perspectives but see them as a critical ingredient in our uniquely collaborative and creative environment. When people from different backgrounds come together to develop and test an idea, invention takes place. Experience of a business school can never be restricted to academics and class room learning but rather goes beyond learning from books to all round development of students. Enrolling for a Club of their choice and organising interesting activities throughout the year provides students an opportunity to know their peers better, learn to work in a team and under time and budget constraints.

S No	Club Name	Club Type
1	Utsav	Cultural Club
2	Codeit	Coding Club
3	Techninjas	Gaming Club
4	CSR Club	CSR Club
5	Applifi	Application Club
6	Abhivyakti	Dramatics Club
7	Webgeeks	Web Development Club
8	SEED	Entrepreneurship Club
9	Athleema	Sports Club
10	Buzz	Media Club
11	Gnosis	Literary Club
12	Prakriti	Environment Club

Objectives of Student Club Activities

- Develops the students in forming their personality with balance and integrity.
- Develops talent of students and improves their capabilities and assists them in acquiring useful knowledge and experience.
- Students get accustomed to participating in social activities thereby improving interaction among them hence developing a harmonious relationship among themselves.
- Students get associated with their society and develop a feeling of belongingness towards it as well as nation.