

India Invented the Number System.
Zero was invented by Aryabhatta.


## Our Inspiration



Aryabhatta was an acclaimed mathematician-astronomer. He was born in Kusumapura (present day Patna) in Bihar India. His contribution to mathematics, science and astronomy is immense, and yet he has not been accorded the recognition in the world history of science. At the age of 24 , he wrote his famed accorded the" recognition in the world history of science. At the age of 24 , he wrote his famed
"Aryabhatiya". He was aware of the concept of zero. He was the first to calculate the value for 'pi' accurately to the fourth decimal point. He devised the formula for calculating areas of triangles and circles. He calculated the circumference of the earth as 62,832 miles, which is an excellent approximation, and suggested that the apparent rotation of the heavens was due to the axial rotation of the earth on its axis. He was the first known astronomer to devise a continuous counting of solar days, designating each day with a number. He asserted that the planets shine due to the reflection of sunlight, and that the eclipses occur due to the shadows of moon and earth. His observations discount the "flat earth" concept, and lay the foundation for the belief that earth and other planets orbit the sun.

Aryabhatta is credited to have set up an observatory at the Sun temple in Taregana, Bihar
He served as the head of an institution (kulapa) at Kusumapura and might have also been the head of the Nalanda university

Some scholars claim that the Arabic text 'Al ntf' or 'Al-nanf' is a translation of one of his works.
His most famous text, 'Aryabhatiya', consists of 108 verses and 13 introductory verses
Aryabhatta did not use the Brahmi numerals, he used letters of the alphabet to denote numbers.
It is probable that he might have come to the conclusion that 'pi' is irrational.
He discussed the concept of 'sine' in his work by the name of "ardha-jya", which literally means "halfchord

Calendric calculations devised by Aryabhatta are used for fixing the 'Panchangam' (the Hindu Calendar) He correctly stated that the earth rotates about its axis daily.





## CAMPUS DIRECTOR

Dear Students \& Parents

We at Aryabhatta Institutes commit to create a world class learning environment, which prepares young professionals to cope up with ever increasing challenges of competitive world, which develops their versatility to adapt seamlessly in a multi cultural global environment, which trains them to be equally comfortable in state-of-the-art as well as rustic environment, which nurtures their leadership traits to shoulder increasing responsibilities, which encourages them to analyses every difficult situation objectively, and which imbibes in them to keep their core values and ethics intact in all situations. We have great sense of satisfaction in beginning the journey to stay ahead. At Aryabhatta we prepare you for the challenges of the new world. The exposure through academics, case studies, industry interactions, industrial trainings, extracurricular and co-curricular activities, seminars and field assignments will have immense learning value which you will cherish throughout your life. The opportunity for learning is limitless. And to add to this the Training and the Placement department is strong and immaculate in dispersing its duties. Students, you should make your purpose in life and hard work as your virtue and must seize opportunities in our institutes to attain growth and development through your perseverance, performance and achievement. As we know that the transition 5

from one state of mind to another can be quite difficult and daunting, and only clarity about the goal and the right approach can make it look simpler. It is true as famous Chinese proverb says that "A thousand miles journey starts with a single step but this single step has to be in the right direction". I assert that your goal and approach both are well-thought and well-informed and above all your conscious decision to have this transition with 'Aryabhatta Group' is the first right step towards your life goal attainment. I take this prized opportunity to welcome the students from the core of my heart and assure their parents that the college $\mathbb{\&}$ its students will progress by leaps and bounds in the coming years.

May Success always be yours!

With best wishes DR. V.K.WALIA

## About us

Globalization has thrown up new opportunities and hence the Profile of winners and leaders in this new age is changing. The institutes being the temples of education and learning have a special esponsibility to equip the future professionals with attitudes and skill sets essential for winning in this competitive information age. A modern self contained infrastructure, continuing updating of urriculum and pedagogy and a committed, skilled and experienced faculty are essential promotional institute. The Aryabhatta Group of Institutes are frastructure, an enging curriculum, a vicorous outdoor life, motivated and skilled faculty and student centered larning environment of vibrant campus. The institutes are based on four core stud illars: Know, integrity, excellence and leadership. value pillars: Knowledge integrity, excellence and leadership.

The institutes successfully focus on fusion of modern science and technology with traditional Indian values. Aryabhatta Group of institutes are envisaged as an incubation centre with tradionality fore to develop quality human capital for the industry i.e. future professionals \& leaders, who are academically strong, have a well-honed vision, got professional and specialized practical skills; and possess motivation, dedication \& commitment to conquer their goals. The focus is on holistic physical, mental, spiritual \& intellectual development of students with the help of continuous Personality Development Programs, Communication Skills Workshops, Soft-skills training, Motivational Speeches, Expert Lectures from the eminent personalities with vast industrial and academic backgrounds, Individual counselling sessions, co-curricular \& extra-curricular activities institutes by giving supreme importance to training \& placements with the help of a dedicated

Training \& Placement department focusing on exploring developing and maintaining close liaiso \& collaboration with industry and providing interface platform between industry \& students. The objective is to provide its students with the best professional career prospects in the emergin global workplace and to equip them for more effective and organized contribution to their chosen professions and fields.

## ADVANTAGES

* Wi-Fi campus of the region with state of the art hi-tech infrastructure.
* Student centered learning as the foundation of the institute's teaching pedagogy
* Highly qualified and experienced faculty recruited selectively to advance knowledge \& bring out
the best in the students.
* Contemporary facilities \& self contained infrastructure providing a holistic learning environment
and contributing to the students' all round personality development.
* Cricket Ground duly approved by Punjab Cricket Association(PCA), Mohali



## INFRASTRUCTURE

## Premises:

Aryabhatta provides a rich learning environment with Wi-Fi enabled building \& technological support to facilitate teaching, learning and personality development. Aryabhatta inculcates its students to have a global perspective, while at the same time be keenly perceptive about local conditions. Aryabhatta group of institutes are spread over 14 acres of lush green land. With superior infrastructure and industry benchmarked curriculum and a dedicated Training \& Placement department, the institutes have all the requisite facilities that form an integral part of any top professional institute.

## Learning Centers/ Lecture Theatre

The classrooms or learning centers provide the most conducive atmosphere for dynamic and focused discussion. The rooms are architecturally and aesthetically well designed and are well ventilated with step up seating to facilitate students and to promote maximum interface between teachers and students. Furniture in rooms is economically designed for comfortable sitting of students. In addition to the traditional blackboards, to make the teaching-learning process multidimensional, multimedia over head projectors are used. More over the faculty adapts various methods of teaching like group discussions, quiz, debate, lecture method, audio-visual techniques and other learner centered modules.


## Multipurpose Hall:

The academic life at Aryabhatta goes beyond the curriculum. For cultural and social functions, the multipurpose hall with a capacity of 250 seats at the campus provides an ideal platform for students to express themselves in public speeches, theatres, plays and general entertainment.

## Conference/ Guest Lectures:

A lecture is an occasion when you numb one end to benefit the other. At Aryabhatta, emphasis is given on not only making you academically brilliant, but true leaders and team players, thus preparing you for the real life. This is done by inviting Eminent personalities from various sectors and institutions to lend valuable information from their experiences to our students.

Library is the brain of any educational institution of higher learning. It is the hub around which all the academic activities of the institution revolve. Aryabhatta library represents the spirit of comprehensiveness and intellectual richness. A gigantic self contained spacious, air-conditioned modern central library with good collection of books, reference books, newspapers, magazines, reputed national and international journals/periodicals, Educational Video Films, Computer Based Tutorials and online databases acts as a reservoir of knowledge in the various disciplines. The serene atmosphere in the library with rows of neatly stacked books plays a major role in attracting the students to the library for serious study and


 technical divisions. All labs are equipped with the latest Hardware \& Software for the up-gradation of education and upliftment of research for students to meet the challenging needs of the technical sector. The labs offer students to work on a wide range of advanced software packages. We boast of fully equipped laboratories with modern equipments. At Aryabhatta, you should expect more than a course schedule and books. We want you to get your hands dirty. Majority of our students participate in research during their undergraduate years.

## COMMUNICATION SKILLS LAB

Modern communication skill lab with Language Lab System focusing on continuous grooming of "English" communication skills of the students. The lab attempts to inculcate the practical skills of communication which includes discussion sessions, presentations, mock meetings, mock interviews etc. with an objective of developing the all round personality particularly the qualities of leadership, dynamism, team building, positive value based attitude and confidence among the scholars.

## PHYSICS LAB

Studying Physics is very exciting since the subject strives to understand the universe from the largest galaxies to the smallest subatomic particles. The Advanced level syllabus builds on many areas that would have already been tackled at SECONDARY level but it covers new ground and the level of study is much deeper.

## WORKSHOP

Apart from emphasizing on content-focused education being imparted to our students, we a Aryabhatta Group of Institutes have also realized that the importance of skills has not diminished. We are aware of the fact that the key to success in the 21st century organization is not content, but practical skills. We provide our students several opportunities to develop their technical skills, abilities, talents and engage in learning through practical exposure in workshop. The students are aware of working on lathes, driving welding stations, working with foundry mould etc.

Chemistry is one of the fundamental sciences which have a profound effect on our planet. It is involved in every facet of everyday life. The Advanced level is divided into physical, organic and inorganic Chemistry with strong links between them. Intermediate Chemistry provides a comprehensive course in chemical literacy. It covers the core topics in a comprehensive yet concise manner. The course aims to give a good grounding in Chemistry without the depth and higher degree of commitment required at Advanced level.

## LIVE PROJECTS BY STUDENTS

Dedicated laboratories allow students to combine their practical and theoretical studies right from the first year and continuing throughout their degree program. Compulsory projects are a part of the course curriculum. Students are engaged in Engineering design right from the first year. Our students have competed in many national and international design projects like Linear Induction Motor, Hybrid Electric car, Handicapped Wheel Chair etc. Small Classes allow faculty to provide for individua attention. Students learn in small groups, receive hands on experience every semester and participate in faculty research projects.



## STEPS TO MARCH FORWARD

Aryabhatta teaching methodology realizes its challenge to create an effective mix between theory and practical. In a nutshell, most learning
style systems emphasize that, learners learn by passive reflective listening, many others learn best by actively "doing". Our teaching is a balance between the delivery of information, or the demonstration of a procedure, and opportunities for hands-on practice, exercises, case studies, role plays etc. We make our tudents understand and retain information best if they immediately apply it in some way, and the students get repeated opportunities to practice in order to master the skill or methodology for the course includes the gamut of class-lectures, case sessions, simulation exercises, class presentations, tutorials, role plays, ive projects, extension lectures by experts from industry and academia etc.

Lecture and Discussion:
Lectures are designed not to be merely pedantic. It coaxes the students to think and undertake aided by audio-visual materials and a
plethora of study notes supplements hese lectures. Designed to give th udent the analytical tools to thin

from a broad range of perspectives, develops his knowledge, critical abilities and practical skills. Cor courses engross him in the foundation
 his own interests ald career him pursue ral world projects help to apply the skills and the knowledge he has learnt.

## Seminars/Presentations:

e focus on small group of students for improving their presentation
skills. The group mentored by the staff member holds in depth discussion on a topic. It could befor example, on a exercise or case which students have worked on, or an essay that an individual student has presented Sudents devote a major portion of tudy and discussion on real life
industrial \& business situations set forth in selective case studies. The students are encouraged to conside creative discovery.

Tutorials:
Tutorials are designed to prepare students for real life situation. There
is a greater degree of persona attention to each student who is assigned to a slew of individual and group assignments. A studen regularly works on his/her projects $\&$ problems. At the core of tutorials is the lear ang to proble Schola rships: Shree Krishna Educational \& Charitable Society Trus provides free guidance, assistanc and books to the needy students.


Institution are eligible to receive al types of Social Welfare Scholarships
granted by the State Government. The ate Government award eaker section students belonging to

S. T and B.C communitie Management of this instituition also provides scholarships to meritorious udents and economically weaker ection students irrespective of the ot ivates. The Mas and dividuals in proximity to install the Iduals in proximity to install their oundations in the institute and aw
ndustry Visits
Regular Industry visits are organized various industrial units to provide the students a proper understanding sight into the application of their heoretical knowledge into practice. he students visit industry/busines houses frequently to get in depth nowledge of industrial processes

## Clubbing Idea

 Student clubs are a very important part of the learning and cultura Aryabhatta. Formed driven by the students themselves, the clubs are a diverse pool of idea and perspectives. Outlined alongsid are the various students groups and beyond.Student Life:
At Aryabhatta student life is centered on fabulous accommodation societies. Student's tours \& excursion

are conducted by an enthusiasti team of students. The information is each of the facilities available to the students. So the s encouraged to visualize himself being there utilizing all the fabulous socia
facilities. Life is full of colors, apart
from daily lectures and examinations students need sufficient opportunity

o enjoy life and make friends. Aryabhatta supports events, activities and clubs that run the gamut from purely social to strictly professional. Clubs are the centre of student's tudent life. They avo havides best ystem of student representation and student support. Here is an ideal pportunity for individuals to broaden their horizons and have a go at something that perhaps they never before.


Source : http://wmw.punjabiuniversity.ac.in/

## ABOUT PUNJABI UNI. PATIALA

Punjab Assembly established Punjabi University, Patiala under the Punjab Act No. 35 of 1961. Dr. S. Radhakrishnan, the then President of India laid foundation of Punjabi University on June 24, 1962. He preached, "The institutes of higher education share the burden of nation-building in a critically important sense. Our aim is a strong, free and democratic India where every citizen has an equal place and full opportunity of growth. In this task, a vast responsibility rests on our universities." This is the second University in the world to be named after a language, the first being Hebrew University of Israel. Its vision is to establish and incorporate a University for the advancement of Punjabi studies and development of Punjabi language as a medium of instruction or otherwise for providing instruction in humanistic and scientific subjects and generally for the promotion of education and research. The University started working from its present lush green, pollution free, 316 acres campus since 1965. Initially University's jurisdiction area was fixed as the 16 km radius having only 9 colleges. In 1969 , it grew into an affiliating university, with 43 colleges affiliated to it. Now the university caters to the educational needs of nine Districts of Punjab. Over the time since its inception, the University has evolved into a multi-faceted and multi-faculty educational institution for the promotion of higher education and research in Humanities, Arts, Sciences, Engineering Languages, Technology and many more. Spread over 600 acres of land, its $1500+$ teachers are imparting instruction and guidance to nearly $14,000+$ students in a multi-faceted, multi-pronged and multi-faculty environment comprising $70+$ Teaching and Research Departments/Chairs on its Campus, 27 Regional Centre/ Neighbourhood Campuses / Constituent Colleges and 278 Colleges affiliated to it.

Main Courses run by Punjabi University Patiala
1.Faculty of Arts and Culture 2.Faculty of Business Studies 3.Faculty of Computing Sciences 4.Faculty of Education and Information Science 5 .Faculty of Engineering 6.Faculty of Languages 7.Faculty of Law 8.Faculty of Life Sciences 9.Faculty of Medicine 10.Faculty of Physical Sciences 11. Faculty of Social Sciences

| NAAC Performance |  |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Sr. No. | Cycle | Grade | CGPA | Year of Accreditation | Validity Upto |
| 1. | 1st Cycle | Five | - | 2002 | 2002-2007 |
| 2. | 2nd Cycle | A | 3.11 | 2008 | $2008-2013$ |
| 3. | 3rd Cycle | A | 3.34 | 2016 | 2016-2023 |

Patents
Till to date 22 patents have been registered and accepted. 11 research journals are being published by the University. Around 94 awards have been bestowed upon the University faculty by duly recognizing their research. Large number of faculty members are on editorial boards of national and international journals.


## AFFILIATED WITH PUNJABI UNIVERSITY PATIALA AND APPROVED BY GOVT. OF PUNJAB

Our courses are designed, and regularly reviewed, with the support of our Advisory Panel to ensure that the content and delivery are relevant to today's world. They will keep you up to date with the latest industry developments and equip you with the appropriate technical/management and teaching skills to enable you to walk the extra mile to achieve success.

## Master Degree Programs

- Master of Science in Mathematics (M.Sc.-Mathematics)
- Master of commerce (M.Com.)

Master of Arts in Economics (M.A.-Economics)

- Master of Arts in English (M.A.-English)
- Master of Science in Information Technology (M.Sc.IT\& LEET)

Post Graduate Diploma in Computer Applications (PGDCA)

Under Graduate Degree Programs

- Bachelor in Science-Non Medical (B.Sc.-Non Medical)

Bachelor in Commerce (B.Com.)

- Bachelor in Computer Application (BCA)
- Bachelor in Business Administration (BBA)
- Bachelor in Arts (B.A.)


## MASTER OF SCIENCE IN MATHEMATICS (M.SC.-Mathematics

Mathematics has got a great importance in the industrial and economic development of a country. M. Sc. in Mathematics is the postgraduate course in Mathematics which enables the candidates to use their mathematical knowledge in different areas. This course has got great scope and there are ample opportunities available for the M. Sc. graduates.
Career Opportunities:
M. Sc. in Mathematics graduates can find lot of opportunities in Research and Development firms, Economic Research firms, Market Research firms and Manufacturing firms. They can look for the job profiles like Quantitative Risk Analyst, Statistician, Treasury Management Specialist and Demographer in these firms. Those who want to work in public sector can find plenteous opportunities in various government organizations like Defence Research and Development Organization (DRDO) and Indian Space Research Organization (ISRO). Reputed Software companies offer several career opportunities for these graduates in operation research, software design and programming. They can also work in various government colleges after qualifying SET or NET exam.
Eligibility: Graduation with Math as Elective subject in whole graduation/B.Sc- Non Medical



## MASTER OF COMMERCE (M.COM.)

This Post Graduation Program is designed to enhance the practical efficiency of the students in the sphere of modern Business World. The specialization offered for this Program is Business accountability to acquaint the students with the changing Business Environment of Indian as well as International Market, to provide additional practical knowledge of business concepts, procedures, methodologies and management of various organizational operations, to provide basic knowledge about Business Research to the students.
Career opportunities:
Masters of Commerce (M. Com.), is one of the highly demanded course after graduation in the field of Commerce. The candidates who successfully complete their program in Master of Commerce will secure better job prospects in Accounting, Administration, Finance, Marketing and Human Resource sector.

Eligibility: B.Com./B.B.A./B.M.I.T./ B.Com (Prof.)/ Bachelor of Accounting \& Finance examinations with at least $50 \%$ marks in the aggregate from this University or any other University recognized as equivalent thereto by the Academic Council.


| M. Com $2^{\text {nd }}$ SEMESTER |
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## MASTER OF ARTS IN ECONOMICS (M.A.- Economics)

This program focuses on building up analytical capacities rather than trying to cover all aspects of the field, because we believe that in a rapidly changing economic and business environment. It is the ability to identify, structure, analyze, and solve changing problems that matters. Flexibility demands the ability to collect, assess, and process information in an analytical and systematical way rather than to maximize the storage of information that will typically be short-lived and may be very specific to the situation decision-makers are confronted with or the industry they are operating in.

Core topics of the program include the analysis of global asset allocation and international fund management, investment banking and venture financing, the analysis of trading systems and the ensuing market micro structure, as well as the design and operation of insurance and pension systems. The specific emphasis includes both the analysis of the existing international financial infrastructure, and the optimal design of financial institutions. Hence, this program confers in depth knowledge about ongoing political debates, about the optimal financial architecture of the global capital markets, the function and design of supervisory agencies and the general regulatory process surrounding "Basle II", and last not least about the optimal design of pension systems.

Eligibility: Graduation with Economics as Elective subject in whole graduation with $50 \%$ marks

M. A. (Eco.) $4^{\text {mi }}$ SEMESTER Evolution and Structure of Indian Economy Public Economics Any two papers from any one of the Groups Group-I

| (I) International Economics |
| :--- |
| (ii) Regional Economics and Punjab Economy | (iii) Money and Banking (iv) Comparative Economics Systems (v)Theory of Statistics (vi) Mathematical Economic (vii) Computer Applications for Eon Group-II (i) Theory of Statis

## MASTER OF ARTS IN ENGLISH (M.A.-ENGLISH)

The MA programme offered by the English Department constitutes most extensive academic activity The course surveys the canon of English literary studies as well as the latest trends in literature written in the English language from all over the world. The M.A. English syllabus comprises 16 courses to be taugh over 4 semesters i. 2 years. It now covers the English literary tradition that extends from Chaucer to modern times. It also incorporates several new areas such as Indian literatures in English and in English translation, literary theory and the relationship between literature and the visual arts. The course aims at giving the learners essential language skills, vital for employability, while instilling in them the maturity for aesthetic enjoyment, for understanding and appreciating values- social, cultural and spiritual so that they are molded into responsible human beings. It trains the students to become prospective teachers, professors and critics.

An important objective of the Masters programme is to introduce students to advanced study and scholarly activity in order to provide an avenue towards a PhD for those who wish eventually to seek a career in the academia. In addition, the course is designed to provide a reasonably complete higher education in literary studies for those who do not intend to proceed to a further degree in the field, but who may indulge into other areas as diverse as publishing, editing, journalism, administration, management, communications or teaching at the high school level.
Eligibility: Any Graduation with $50 \%$ marks

| M.A. (Eng.) $1^{\text {st }}$ SEMESTER |
| :--- |
| Medieval and Renaissance Poetry |
| Classical and Elizabethan Drama |
| Rise of the Novel |
| One of the following options: |
| (I) English Phonetics and Phonology <br> (ii) Shakespearean Drama 有 |

M.A. (Eng.) 2 ${ }^{\text {nd }}$ SEMESTER Literary Criticism from Johnson to Eliot Poetry from Neoclassical to Victorian Age Nineteenth Century Fiction One of the following options: (I)Modern Drama (ii)Literary Essay (iii)Modern English Grammar and Usage
M.A. (Eng.) $3^{\text {rd }}$ SEMESTER Literature and Modernity Twentieth Century Poetry and Fiction Literature and Gender One of the following options:
(I) Literature and Post-Coloniality (ii) Creative Writing (iii) Modern Indian Literature in Translation

## MASTER OF SCIENCE IN INFORMATION TECHNOLOGY (M.SC.IT) \& LEET

The programme aims at realising the following objectives:
To equip postgraduate students with an integrated set of skills that will allow them to develop their professional careers in Information Technology.

- To equip students with the theoretical and practical knowledge that is necessary to enable
mem to understand the design of complex computer applications/ science.
> The programme also prepares students to embrace future developments in the field and has a demonstrated professional relevance.

Eligibility: For First year any graduation with $50 \%$ marks or BCA with $33 \%$ marks
for Second year (LEET) : B.E. (CS/IT) / B.Tech (CS/IT) OR 3 Year Graduation with One Year PG Diploma in IT/CA from a recognized University OR DOEACC 'A' Level OR Three year Graduation with 2 year diploma from NIIT / APTECH, thereafter


Post Graduate Diploma in Computer Applications (PGDCA)
The programme aims at realising the following objectives
-Providing specialisation in computer science with technical, professional and communications skills. Train future industry professionals.

Eligibility: 3 year Graduation

| PGDCA ${ }^{\text {st }}$ SEMESTER |
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## BACHELOR IN SCIENCE-NON MEDICAL (B.SC.-NON MEDICAL)

Bachelor of Science (B. Sc.) is one of the most popular academic degree courses among the science students after class 12th. The duration of B. Sc. degree is of 3 years. The B. Sc. degree course is a full time graduate degree course in Science. This course forms the basis of science and comprises of the subjects like physics, chemistry, biology, zoology and mathematics.
Career opportunities:After the completion of the B. Sc. degree there are various options available for the science students, they can go for master degree in Science i.e. M. Sc., go in a research area and can even look for professional job oriented courses. Often, in some reputed universities or colleges in India and abroad the students are recruited directly by big MNC's after their completion of the course.
Eligibility: 10+2 Non-medical (Physics, Chemistry \& Mathematics)


| B.Sc. Non Med. $2^{\text {nd }}$ SEMESTER |
| :---: |
| Punjabi |
| Math-Algebra-I |
| Math- Partial Differential Equations |
| Math-Analytical Geometry |
| Physics-Mechanics-II |
| Physics- Vibrations and Waves-II |
| Physics- Electricity and Magnetism-II |
| Physics-Practical |
| INORGANIC CHEMISTRY |
| ORGANIC CHEMISTRY |
| Physical CHEMISTRY |
| Chemsitry Practical |
| B.Sc. Non Med. $4^{\text {th }}$ SEMESTER |
| English |
| Punjabi |
| Math: Numerical Methods |
| Math: DYNAMICS |
| Math: Analysis-l\| |
| Chemistry: INORGANIC CHEMISTRY |
| Chemistry: ORGANIC CHEMISTRY |
| Chemistry: PHYSICAL CHEMISTRY |
| PRACTICAL CHEMISTRY-I |
| Physics: Statistical Phy. \& Thermodyn.-II |
| Physics: Lasers |
| Physics: Quantum Mechanics-II |
| Physics Practical Lab |
| Environment Science |
| B.Sc. Non Med. $6^{\text {th }}$ SEMESTER |
| Punjabi |
| PHYsICS: Condensed Matter Physics-II |
| PHYSICS: Electronics-II |
|  |  |
|  |
| CHEMISTRY: INORGANIC CHEMISTRY |
| CHEMISTRY: ORGANIC CHEMISTRY |
| CHEMISTRY : PHYSICAL CHEMISTRY |
| CHEMISTRY: PRACTICAL CHEMISTRY-I |
| Math: Algebra - II |
| Math: Discrete Mathematics-1I |
| Option (Any one) |
| Math: Mathematical Methods-II |

## BACHELOR IN COMMERCE (B.COM.)

Bachelor of commerce is the 3 year under graduate course modeled to offer the student with a number of management skills and at the same time also building in them proficiency in a specific area. The Bachelor of commerce is a career oriented course which provide a foundation in all aspects of commerce. The Bachelor of Commerce degree is designed to provide a student with a wide range of managerial skills while at the same time, builds competence in a particular area of business studies. Career opportunities:There is a big scope for students who have completed their bachelor's degree in commerce, both in terms of higher education as well as immediate jobs. Education in the concerned field is an excellent base for a variety of careers. On successful completion of B.com, students can apply for jobs relating business and finance. Professionals can apply for employment in finance sectors like banking, company secretary ship, chartered accounting, cost and work accountancy jobs. They can also apply for non finance sector jobs in mass communication, law , hotel management, civil services and so on.
Eligibility: A candidate must be +2 in commerce stream with any \% or must have $50 \%$ marks in Humanities or Sciecnce from a recognised education board.



B.Com $4^{\text {th }}$ SEMESTER | B.Com $4^{\text {th }}$ SEMESTER |
| :--- |
| Punjabi Comp./Elementary Knowledge |
| Enjish( | English(Communication Skills)

Company Law
Corporate Accountin
Income Tax Law - II

| Operation Research |
| :--- |
| Environment \& Road Safety Awareness (Qualifying pape |



## BACHELOR IN COMPUTER APPLICATIONS (BCA)

Fast growing information technology and communication systems have become critical components of almost every company's strategic plan. India has witnessed an immense boom in the IT sector in the recent few years and the related opportunities in computer field has increased tremendously. Companies which want to take advantage of the new information technologies and communication systems require expert professionals, who can apply computer science principles to solve problems produced by the interface between business and technology. BCA is a three year undergraduate program where students are exposed to various areas of computer applications including the latest developments keeping pace with the industry. Aryabhatta offers 3 year full time BCA program Affiliated to Punjabi University, Patiala
The course aims at realizing the following student objectives:
demonstrate a sound knowledge in key areas of computer science and industrial computing.
To demonstrate a substantial understanding of concepts in key areas of computer science.
To carry out the required analysis and synthesis involved in computer systems, information systems and mputer applications.
> To demonstrate professional competence in developing software and in its design and implementation. To develop sound practical skills to enable them to handle problems which arise in computer systems and applications.

Eligibility: A candidate must be +2 in any stream (Humanities, Commerce or Sciecnce) from

eral English - II
Punjabi (Compulsory) or (Mudla Gyan)
Digital Electronics
Data Structures
Data Structures
Software Lab-III (Data Structures)
..Couem, mgr. \& Prevent

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\text { BCA } 4^{\text {th }} \text { SEMESTER }
$$

English Communication Skills - II
Congish Communication Skils Management Information Systems Comp. Oriented Num. \& Stat. Methods Software Lab - VI Comp. Oriented Num. \& Stat. Methods Software Lab-VII Oracle Lab Environmental and Road Safety Awareness(Qualifying Ex


## BACHELOR IN BUSINESS ADMINISTRATION (BBA

A programme that came into national consciousness, in the wake of the MBA boom, it is one of the most hyped degrees in the country to an MBA both in structure and level of specialization it offers, the course ideally must have been enough to make you eligible for entry level position in corporations and factories. But since MBA-level graduates are aplenty, barring a few leading colleges, a BBA never gets you a job. You will be forced to pursue an MBA.
Course overview: You will study the basics of commerce, trade and accountancy along with elementary mathematics in the first year. Functional subject like marketing and HR will be taught in the second year as well as computing subjects. The final year lets you specialize in one two functional areas.
Job opportunities: ABBA gets you entry-level positions in many corporations and factories. You would do lot of backend work and provide support services to your seniors. Exceptional candidates could expect to do me customer interface though it is very rare. Also invariably you would hit the glass celling very fast, and ould reque an MBA to move up the ladder
Eligibility: A candidate must be +2 in any stream (Humanities, Commerce or Sciecnce) from

## recognised education boar

| Comm. Skills in Punjabi/ Elementary Punjabi |
| :---: |
|  |  |
|  |
| Business Mathematics |
| Business Organization and Mgt. Princip |
| Workshop on Computer Applications |
|  |



Drug Abuse : Problem, Mgt. \& Prevention


##  <br> Comm. Skills in Punjabi/Elementary Punjal Business Research Methods workshop on Time \& Workload Managemen

 \begin{tabular}{l} Seminar on Summer Inernship <br>
Choose Any 3 sub. from not more than 2 func. areas <br>
\hline
\end{tabular}



Rural Marketing

| Krand Marketing |
| :--- |
| Brand Product Managementh |

interpersonal Skills In Managagement
Psychological Testing
Stock Market Opera
Insurance Managem
Insurance Management
Investment Management
Information Technol
Web Designing
Telecommunications For Busine
Event Design And Sponsorship
Event Operations And Logistics
Event Proposal And Marketin
$\begin{array}{r}\text { Media Manage } \\ \hline \text { Corporate Communication }\end{array}$
New Media Technology
Communication Skills In Punjabielementary Punjabi
Development Communication


BACHLOR OF ARTS (B.A.)
A Bachelor of Arts is a broad interdisciplinary undergraduate degree program encompassing general education, elective and major area of study courses. As opposed to a Bachelor of Science program, B.A. programs generally give you more flexibility in choosing your courses and are less specialized. By taking courses in the arts and humanities, you can deepen your cultural understanding and awareness, in addition to developing analytical, critical thinking, written and ommunicationskills.
 well as immediate jobs. Education in the concerned field is an excellent base for a variety of careers. After completing several general education courses, you can choose a major from a number of academic areas, such as social sciences, behavioral sciences and fine arts. A Bachelor of Arts degree may be appealing because of its broad and well-rounded approach, which can offer versatility and options when seeking a career or a graduate degree. B.A. programs often offer udy abroad possibilities, online education, and continuing education for advanced degrees. B.A. Degree is foundational

Eligibility: A candidate must be +2 in any stream (Humanities, Commerce or Sciecnce) from a
recognised education board
We have different subject
Punjabi Literature/English Litrature
Political Science
conomics
sducation
Student has to choose three subjects out of the four mentioned.


## ABOUT PSEB, MOHALI



The Punjab School Education Board came into existence through a legislative enactment in November 1969 for the development and promotion of school education in the state of Punjab. In 1987, the Vidhan Sabha amended the Board's Act to grant it autonomy. The scope of Board's functions is very wide and covers almost every aspect/stage of schoo education. However, a brief account of functions, structure and activities of the Board is enumerated as below:

Functions of The Board
1.To make necessary arrangements for smooth conduct of public examination at schoo level .At present the Board conducts public examinations at Middle, Matriculation and Senior Secondary Level.
2.To prescribe the curriculum, courses of studies and text books for school education The Board has a full- fledged academic wing, having subject experts in all the major subjects. The main responsibility of this wing is to prepare and revise the syllabuses regularly and then prepare text books accordingly.
3.To arrange for the preparations, compilation, improvement, publication, printing and sale of text books.
4. To make necessary arrangements for affiliations of schools to the Board.
5.To make efforts to bring about qualitative improvement in school education
6. To act as an advisory body to the state Govt. regarding School Education. this Act.


AFFILIATED WITH PUNJAB SCHOOL EDUCATION BOARD, MOHALI AND APPROVED BY GOVT. OF PUNJAB

Our courses are designed and regularly reviewed with the support of our Advisory Panel to ensure that the content and delivery are relevant to today's world. They will keep you up to date with the latest industry developments and equip you with the appropriate technical/management and teaching skills to enable you to walk the extra mile to achieve success.


| $10+1$ ARTS |
| :--- | :--- |
| General English |
| General Punjabi/Punjabi History and Culture |
| Environmental Education |
| Computer Science |
| Choose any three |
| History/Mathematics |
| Punjabi Literature/English Literature |
| Economics |
| Political Science |
| Physical Education |

10+1 COMMERCE

## General English

General Punjabi/Punjabi History and Culture Environmental Education
Computer Science
Business Studies
Accountancy-I
Business Economics and Quantitative Methods -
Fundamental of E-Business

## $10+2$ ARTS

 General English General Punjabi/Punjabi History and Culture Environmental EducationComputer Science Choose any three
History/Mathematics
Punjabi Literature/English Literature
Economics
Political Science
Physical Education

| $10+2$ COMMERCE |
| :--- | :--- |
| General English |
| General Punjabi/Punjabi History and Culture |
| Environmental Education |
| Computer Science |
| Business Studies |
| Accountancy-l |
| Business Economics and Quantitative Methods -I |
| Modern Office Practices |

General Punjabi/Punjabi History and Culture
Environmental Education
Business Studies
antitative Methods -I
Modern Office Practices


