



PROSPECTUS

for

Department of Software Development
Information Brochure

B.Voc. Degree in Software Development

UGC's Sponsored 3-Years Degree Programme
in Software Development, under NSQF



Affiliation & Certification



ANNADA COLLEGE

A Permanently Affiliated
Linguistic (Bangla) Minority Institution under
VINOBA BHAVE UNIVERSITY HAZARIBAG, JHARKHAND - 825301
NAAC Accredited
Registered U/S 2 (f) & 12-B of U.G.C. Act. 1956



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MANAGEMENT

Mahatma Gandhi always viewed education as an all-round development and not just as literacy. He says, "True education must correspond to the surrounding circumstances or it is not a healthy growth." Keeping this philosophy of Mahatma Gandhi in view, Annada College, Hazaribag has been trying consistently since its inception on July 09, 1979 to sculpt the task of imparting education to its students that corresponds to the surrounding circumstances. And it is very much perceptible that the surrounding circumstances demand skill enrichment and employability in students. As the business environment getting more complex and unpredictable, management education has more relevance today than ever before. The institute is committed to creating an ambience for nurturing innovation, creativity and excellence in our students.

I congratulate the teachers and non-teaching staff of the college, led by zealous Principal-in-charge Dr, Nilmani Mukherjee on their successful effort of introducing this course which is perhaps the first of its kind in Jharkhand. I wish team-Annada and the aspirants who aim to opt this skill-based course, a very bright future.

May you continue towards greater heights with your team work!



Dr. Sajal Mukherjee

Secretary, Annada College

Dr. Sajal Mukherjee
Secretary, Annada College
Hazaribag

THE PRINCIPALS'S DESK



Dr. Nilmani Mukherjee
Principal-in-Charge, Annada College

Dear Students, Parents and College's Employees

The growth of an institution is measured not in terms of the number of students enrolled, thier results or even in terms of the size of its building, it in fact, depends on the way the institutions responds to the needs of its stakeholders- students, parents, society and industry with current scenario.

We have been providing value based education and a conducive environment for overall personality development of students. We strongly believe in human values and our commitment to the Nation and society. Accordingly, our teaching-learning process is based on motivating factors, discipline, although in relaxed natural ambience. Every student is provided a professional environment of learning from the very first day. The institute places special emphasis on inculcating corporate values and skills required for complex decision-making, besides developing superior expertise on functional domains and garnering business knowledge.

I assure that your three years journey for this specific professional software development degree course UGC's Sponsored under NSQF would be adding different dimension to your life.

Sincerely,

Dr. Nilmani Mukherjee

Principal-in-Charge, Annada College

About Hazaribag

The place has a history which starts from the chalcolithic period (9000- 5000 BC), surrounded by many intriguing and eye-catching places like National Park, hills, lakes and dams. It is a divisional headquarter of North Chotanagpur division of the state of Jharkhand and is about 100 KM from the capital city of Ranchi.

About Vinoba Bhave University

B.Voc in Software Development course of Annada College is affiliated to Vinoba Bhave University which was established in the year 1992. It was named after the great saint and pioneer of the Bhoodan Movement, Acharya Vinoba Bhave. It is imparting post-graduate teaching and research in Physical Science, Life Science, Earth Science, Social Science, Humanities, Commerce, Technology, Medical Science and Management.

About Annada College

Annada College, Hazaribag is the only permanently affiliated linguistic(Bengali) minority college of Jharkhand. The college was established on July 09, 1979 on the occasion of the centenary celebration of establishment of Annada High School, Hazaribag. The Managing Committee comprises eminent Bengalees of the region. Four more educational institutions are run by this Committee. These are:

1. Annada High School, Hazaribag (Established in 1838)
2. Yadunath Girls' Middle School, Hazaribag (Established in 1873)
3. Annada Shishu Vidyalaya, Hazaribag (Established in 1878)
4. Yadunath Girls' High School, Hazaribag (Established in 1956)



VISION

The vision of the founders of the college was to spread and disseminate the light of knowledge in every nook and corner of the world. It also aims to impart a liberal, modern, sound and quality education to the poor and downtrodden students at an affordable cost, especially to the tribal from the poorest strata of the society and most rural background, in frontier areas of modern education, apart from the fundamental streams. The vision also includes to make excellence the focal point of education in the region through an arrangement of essential curricular and co-curricular tools.

MISSION

- To preserve and promote Bengali language, literature and culture.
- To inspire the academic environment for promotion of quality teaching-learning activities for the students.
- To promote scientific temper among the students so that they can develop the ability to change the society.
- To provide quality education in the fields of Arts, Science, Commerce, Technology, Management, Vocational Education at an affordable cost.
- To promote the participation of the stake holders for quality assessment, quality up gradation and sustenance.

CORE VALUE

Annada College, Hazaribag intends to promote the following core values among its students:-

- Making its students a good informed citizen so that they can work for the welfare of society and development of nation.
- Nurturing the students to help them acquire necessary skills and competence for quality living.
- Helping the students inculcate traditional Indian values.
- Encouraging the use of technology.
- Steady pursuit for excellence.

This self-financed and partially aided college got permanent affiliation in the academic session 1991 – 1992 and recognition by the UGC under 2(f) and 12-B in the year 1993. The college is affiliated to Vinoba Bhave University, Hazaribag which was established in 1992). Prior to this, it was affiliated to Ranchi University, Ranchi. The college campus is located in an area of 05.63 acres in the heart of the town of Hazaribag which happens to be the district headquarter. It has a reasonably good infrastructure to support a large number of students. The college has well equipped laboratories of Biotechnology, Chemistry, Physics, Zoology and Botany. It has two sufficiently equipped Computer labs to support more than 100 students at a time. The college has a well-equipped rich library which has been fully automated. It has also a large playground, parking shed and independent administrative block. More than 150 teaching and non-teaching staff remain on their toe to support the students.

● Faculty Members ●



Mr. Alok Kumar Ravi

Qualification - MCA, MBA, P.hD (Enrolled)

Designation - Administrative Head & Asst. Professor

Contact No. - 90068 01225

Mrs. Shalini Jha

Qualification - MCA with software engineering

Designation - Asst. Professor

Contact No. - 6206613481



Co- Curricular Activities

The college has paid special attention to the growth of personality of the students. It offers a number of opportunities to its students so that they may train themselves to succeed in life. Interested students may participate in sports, NCC, NSS, Literary & Cultural activities.

Athletics & Sports

"Every Star has a Shining Moment"

At Annada College, Hazaribag, the students are encouraged to participate in various sports. They have made us proud with their achievements. The students have been participating in various inter college sports activities. Various Games & Sports (Indoor & Outdoor) facilities are being regularly provided to the students of our college. We have always had the belief that "every star has a shining moment". Through sports we want to inculcate the values in our students that success isn't something that just happens - success is learned, success is practiced and then it is shared.



Cultural Activities:

Participation in cultural activities results in enhancement of the personal skills and experiences like confidence; self-presentation; teamwork and collaboration; time management and organizational skills; self-awareness; self-discipline; open mindedness to move beyond boundaries and experiment with different ideas; communication skills; the ability to cope with criticism and learn from them resulting in a whole new developed, changed and an improved person.



National Cadet Corps (NCC)

The National Cadet Corps in India is a voluntary organization which recruits cadets from high schools and colleges all over India. The cadets are given basic military training in small arms and parades. The content of NCC course includes basic training in drill and ceremonials, field craft, map reading and navigation, the use and handling of infantry weapons and the element of military organization etc. Attachment to Military units are arranged for first-hand experience and training camps are held annually in various parts of India for selected cadets. The officers and cadets have no liability for active military service once they complete their course.



National Service Scheme (NSS)

NSS tries to establish link between, Campus and Community, College and Villages and Knowledge and Action. The N.S.S. is in the forefront in making students to wilfully contribute to the needs of the society. It tries to uphold and spread valuable ideas which are a spring board to the youth.

Educational Institutions are the basis of development of the society and the state. This institution is the fulfilment of the aspirations and expectations of the society around. The institution envisions, the creation of leadership, extension of services and instilling social awareness leading to the overall development of the society. By providing quality education, moulding self-reliant and selfless human beings and encouraging the students to unleash their true potential the institution aims to be the best. Adequate facilities are provided with the right environment for self-actualization. The institution caters to the requirements of higher education and needs and desires of the community. All efforts are made, to inculcate human values, improve the caliber of students and motivate them to reach higher standards. Enrollment in the National Service Scheme (NSS) and participation in its activities is compulsory for all students.



BACHELOR OF VOCATION (B.VOC.) DEGREE PROGRAMME IN SOFTWARE DEVELOPMENT SANCTIONED BY THE UGC UNDER NSQF

About

B.Voc. (Degree) Programme in software Development

it has been a long-felt necessity to align higher education with the emerging needs of the economy so as to ensure that the graduates of higher education system have adequate knowledge and skills for employment and entrepreneurship. Therefore, the Govt. of India issued a notification for National Skills Qualifications Framework (NSQF). Under the National Skill Development Corporation (NSDC), many Sector Skill Councils representing respective industries are being established to develop Qualification Packs (QPs) National Occupational Standard for various job roles in their respective sectors. The University Grants Commission (UGC) had launched a scheme for skill development as a part of higher education, leading to Bachelor of Vocation (B.Voc.) degree with multiple entry and exit points for creating employable graduates.

Annada College, Hazaribag since its inception has been striving hard for the skill development of students who belong to the marginalized, under-privileged, minority sections of society and encouraging them to be self-reliant. Apart from the conventional courses, the College focussed towards the vocational, job-oriented streams to fulfil the long-felt desire of the college founders. In UGC's IX plan vocational subject- Office Management and Secretarial Practices was added and in XII Five Year Plan, the college succeeded in achieving a distinct position as UGC sanctioned B.Voc. Degree programme in SOFTWARE DEVELOPMENT. The College authorities have been making relentless efforts to equip the college with developed patterns of teaching – learning activities. It is, therefore, in continuation of these efforts, the College has added a new course B. Voc. in SOFTWARE DEVELOPMENT from the session 2020-2021.

HIGHLIGHTS OF B.VOC. DEGREE PROGRAMME

B.Voc. in **SOFTWARE DEVELOPMENT** is a three-year Undergraduate (UG) program that aims to impart practical and industry relevant skills in the domain of software development. The course ensures that students have adequate skills which will make them work-ready, enhance their employability and thus make them a useful part of global workforce. The curriculum offers a unique blend of vocational and business management concepts. Field-visits, internships, guest lectures from industry experts, experimental learning are some of the highlights of this curriculum. This course emphasises innovative and modern learning through technology.

- Initial entry at 10+2 from any stream, no need for any competitive exam rank, Skill Based Curriculum
- B. Voc. (SOFTWARE DEVELOPMENT): MULTI-ENTRY // MULTI-EXIT
- Student earn multiple degrees: Diploma after completing First year, Advance Diploma after Second Year and B. Voc. after completion of Third year
- The general fees to earn 3-Years B. Voc. (SOFTWARE DEVELOPMENT) degree is extremely high but in Annada College, Hazaribag, the fee is only Rs 17,500 (Seventeen Thousand Five Hundred Rupees only) because of the financial assistance provided by UGC under NSOF.
- B. Voc. (SOFTWARE DEVELOPMENT) provides a Bachelor degree to make student eligible for Government Jobs which require graduate degree.
- B. Voc. (SOFTWARE DEVELOPMENT) provides bachelor degree in one Skill

This is a course organized by UGC In this course, you learn all advanced topics of technology like: Software Development, Web Designing, Programming, etc. You can also learn: C, C++, JAVA, ASP .NET, C#, HTML5, CSS3, JAVASCRIPT, JQUERY, PHP, MYSQL, JOOMLA, WORDPRESS, etc.

B. Voc(SD): Job Profiles & Top Recruiters

A B.Voc programme aims at imparting education that builds specific job skills in students so that they can serve the industries better. After completing a degree or diploma in B. Voc candidates can start working in their chosen field immediately. Some of the popular B.Voc job profiles include:

- **Software Developer:** A Software Developer develops and tests software to meet consumers' and clients' needs. He/She also upgrades the existing

applications and monitors quality and performance of applications through testing and maintenance. A Software developer also documents all work for future reference.

- **Web Designer:** A web designer is someone who is both creative and technically inclined, and uses both these attributes to build or redesign websites.
- **Programmer:** A computer programmer, also called a coder is a person who creates computer software. The term computer programmer can refer to a specialist in one area of computers, or to a generalist who writes code for many kinds of software.
- **Computer Operator :** A computer operator is a professional who oversees the running of computers ensuring that the systems are functioning properly. Daily tasks of a computer operator include managing backup systems; maintaining printers, cycling tapes or other media etc.
- **Vocational Teacher:** A vocational teacher is responsible for imparting vocational education to students in fields such as Software Development, Web Designing, Programming, etc. B.Voc(SD)Passed student can do MCA Course.

Our Recruiters :

After successful completion of the course our students are placed in various IT companies and government sectors.

- | | |
|--------------|--------------------|
| 1) TCS | 2) ICICI BANK |
| 3) AXIS BANK | 4) HCL |
| 5) IT GROUP | 6) INFOSYS |
| 7) WIPRO | 8) NTPC |
| 9) Telco | 10) Ashok Leyland |
| 11) L & T | 12) Hero Moto Corp |

Vocational or skill-based education is becoming more and more significant with passing time. B. Voc (Bachelor of Vocation) is an emerging course in India that aims at providing adequate skills required for a particular trade to candidates. The course is different from traditional academic programmes as it deals more with application-based studies rather than focusing on only theoretical knowledge.



Admission Procedure in B.Voc. (Software Development)

Eligibility for Admission :

Applicants must have completed their 10+2 or equivalent examination in Arts/Science /Commerce from any recognized board and must have scored at least 45% marks.

Admission Procedure:

1. Application form along with the brochure can be obtained from department office Room No. - 46/ fee counter on cash payment of Rs 300/- in all working days.
2. Filled application along with photocopies of 10th, Intermediate / 10+2 marksheet and certificate must be submitted in department office room no. 46 during office hours.
3. After successful counseling / ET / skill test. Applicants can take admission by paying fee in counter and take receipt from counter duly signed by office clerk.
4. Register himself/herself through chancellor portal. <https://jharkhanduniversities.nic.in>

Documents required at time of interview

- Mark Sheet : 10th & 12th
- School/College Leaving Certificate
- Admit Card 12th
- Migration Certificate
- Aadhar Card
- Passport Size Photographs: 04

Note : Original along with two photocopies of above documents are to be submitted at the time of document verification.

Number of Seats : The total Number of seats in Software Development is 50 (Fifty)

Free Structure :

Semester Tuition Fee	= 16,000/-
Registration Fee (only one time)	= 1000/-
Departmental Development Fee	= 150/-
Sports, library and others fee	= 500/-

Total = 17650/-

CODE OF CONDUCT

ATTENDANCE

- Every student is required to attend at least 75% of the total lectures/tutorials/practicals, except for a good reason for leave on medical grounds. Counter signed by a parent and duly supported by a medical certificate, must be submitted within a week of return to college. The student will not be eligible to appear for the examination if he/she fails to put in the required attendance.

IDENTITY CARD

- College urges the students to understand the spirit of wearing the identity card and comply with the rules since it is a symbol of belonging to one of the premier institutions of the university. It is a means of identification in case of accident, medical and other emergencies. The identity card will contain the student's name, batch details, class roll no, session, subject offered. The card along with a recent passport sized coloured photograph duly stamped and signed by the college. In case of loss of the I-card, a duplicate I-CARD will be issued on a written request subject to the approval of the Principal and payment of applicable fee.

DISCIPLINE

- Any act of indiscipline/misbehaviour by any student will lead to severe penalties/punishment. Damage to college/campus property due to negligence or lack of care will lead to punishment and compensation will be charged. Consumption of alcohol/drugs/tobacco/smoking etc. while in the campus is prohibited. Theft, gambling, sexual harassment, physical fight etc with each other in the campus will be dealt severely by the college.
- The college is liable to cancel the admission of a student who has taken admission on any form of misrepresentation of facts or fraud.
- Any student found misbehaving in the class and behaving arrogantly with the faculty and staff or fellow students will be severely punished.

Facilities available in the college apart from departmental facilities

- Library with latest books and Journals for all trades. It is compulsory to get library card from the librarian just after the admission.
- Purified water and canteen facility
- Uninterrupted power supply
- High speed internet connectivity

Rules for students driving two wheelers

Students coming by two-wheelers need to wear helmets compulsorily.

Student must always carry the original copy of his / her valid driving license.

Regular checking will be done by the College authorities.

OUTLINE OF THE COURSE (Syllabus)

COURSE STRUCTURE

The proposed CBCS system has the potential of providing a choice of a wide spectrum of subjects/branches of subjects to students in pursuit of achieving their cherished goals. This system has been globally accepted and now has become the need of the day. The UGC also has provided guidelines to the Universities for consideration and implementation of CBCS.

Semester - 1st

Paper Code	Title	Credit	Marks
B.VOC 1001	Fundamentals of Computer	4.0	100
B.VOC 1002	C Programming	4.0	100
B.VOC 1003	Database Management System	4.0	100
B.VOC 1004	Communication Skill	6.0	100
B.VOC 1005	Fundamentals of Mathematics	6.0	100
Sessional			
B.VOC 1006	C Programming Lab	2.0	50
B.VOC 1007	Database Management System Lab	2.0	50
B.VOC 1008	Fundamentals of Computer Lab	2.0	50



Semester - 2nd

Paper Code	Title	Credit	Marks
B.VOC 2001	Data Structure using C	4.0	100
B.VOC 2002	Object Oriented Programming using Java	4.0	100
B.VOC 2003	Data Communication & Computer Networks	4.0	100
B.VOC 2004	Financial Accounting	6.0	100
B.VOC 2005	Principle of Management	6.0	100
Sessional			
B.VOC P2006	Java Programming Lab	2.0	50
B.VOC P2007	Data Structure Lab	2.0	50
B.VOC P2008	Accounting Lab	2.0	50



Semester - 3rd

Paper Code	Title	Credit	Marks
B.VOC 3001	Web Development	4.0	100
B.VOC 3002	Python Programming	4.0	100
B.VOC 3003	Software Engineering	4.0	100
B.VOC 3004	Numerical Analysis	6.0	100
B.VOC 3005	Environmental Science	6.0	100
SESSIONAL			
B.VOC P3006	Python Lab	2.0	50
B.VOC P3007	Web Development Lab	2.0	50
B.VOC P3008	Software Engineering Lab	2.0	50



Semester - 4th

Paper Code	Title	Credit	Marks
B.VOC 4001	Advanced Java	4.0	100
B.VOC 4002	Cloud Computing	4.0	100
B.VOC 4003	Computer Organization	4.0	100
B.VOC 4004	Operating System	6.0	100
B.VOC 4005	Artificial Intelligence	6.0	100
Sessional			
B.VOC P4006	Advanced Java Lab	2.0	50
B.VOC P4007	Linux Lab	2.0	50
B.VOC P4008	Mini Project	2.0	50



Semester - 5th

Paper Code	Title	Credit	Marks
B.VOC 5001	Dot NET Framework	4.0	100
B.VOC 5002 A	Elective 1: Data Warehousing & Data Mining	4.0	100
B.VOC 5002 B	Elective 1: Android Programming	4.0	100
B.VOC 5003 A	Elective 2: Internet of Things	4.0	100
B.VOC 5003 B	Elective 2: Network Security	4.0	100
B.VOC 5004	Software Quality Assurance	6.0	100
B.VOC P5005	Operation Research	6.0	100
Note: One paper from each elective. Sessional			
B.VOC P5006	Dot NET Lab	2.0	50
B.VOC P5007	Elective 1 Lab	2.0	50
B.VOC P5008	Elective 2 Lab	2.0	50



Semester - 6th

Paper Code	Title	Credit	Marks
B.Voc Proj-6001	Project	30.0	650

OUTCOME OF THE SYLLABUS

After successfully completing the three year Software Development Programme the students. will be able to:

1. Analyze, understand and develop computer programs in languages like C, C++, JAVA, VB.Net Etc.
2. Work in the IT sector as system administrator, software developer, network engineer, web developer software tester etc.
3. Pursue higher studies in the area of Computer Science/Applications
4. Develop communication skills by using English language accurately and effectively.
5. Understand the basic ideas of storage devices, operating system, input/output devices, computer networks etc.
6. Analyze a given problem and develop an algorithm to solve the problem.
7. Clip, design and transform images in two and three dimension.
8. Acquire a good understanding of database systems and to be in a position to use and design databases for different applications.
9. Work on different types of operating system like Windows, DOS, Linux, Mac OS. etc.
10. Explain how communication works in Computer Networks.
11. Understand the basic working of Internet and its main services.
12. Design online Projects with advanced technologies according to their choice.

Academic Facilities

- Wi-Fi campus
- Computer Labs
- Lecture rooms
- CCTV surveillance
- Uninterrupted power supply
- High Speed internet facility
- Co- curricular activities
- E-kalyan scholarship
- Placements
- Library with latest books and journals for all trade.



Student Progression & Testimonial



Ms. Sneha Sinha
Batch 2020-21 (Topper)

Currently, Sneha Sinha immersed in the world of graphic design, juggling freelance projects while also exploring the intersection of creativity and functionality, seeking to enhance user experiences through intuitive design solutions.



Tanu Ray
Batch 2020-21

I engaged in web development project. The B.Voc Software development course has been amazing, sparking a huge passion for creativity and innovation the course is designed to equip students with latest software development tools & technology.



Mr. Mihir

Currently, Mr. Mihir is selected as system (Data) Analyst in MediHse Training Academy under NTPC. This is the first college in Hazaribag where such specific job oriented course run to meet rapid growth of industry and current market demand in software projects.



Ravi Kumar
Batch 2020-21
Currently pursuing MCA in WIPAC

B.voc (Bachelor of vocational degree in software development) is a 3 year course which help in learning of programming languages like c, c++, java, python, C# with full stack web development and android development.

ANNADA PHOTO GALLERY



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Contact for Inquiries Regarding Admission: Visit Department Office Room no. 46

☎ 9006801225, 6206613481, 8002631372, 8444864124

🌐 Website : www.annadacollege.ac.in