



Today, we're watching the gradual evolution from the Knowledge Economy to the Age of Artificial Intelligence and Virtuality. With it comes a fundamental shift in what it means to be a leader in this rapidly changing market place. With DAV you will find a path that leads to your ultimate success.

### About TU and DAV

Tribhuvan University (estd. 1959), Nepal's largest higher education institution, serves almost 400,000 students across the country through its constituent campuses, central offices, and affiliated institutions. Education, humanities and social sciences, law, and management are among the faculties. Science and technology, engineering, medicine, forestry, agriculture, and animal science are among the institutes. In addition, the university's four research centers-the Center for Economic Development and Administration (CEDA), the Center for Nepal and Asian Studies (CNAS), the Research Center for Educational Innovation and Development-conduct cutting-edge research studies (CERID), and Research Center for Applied Science and Technology (RECAST) help in holistic development of students. Tribhuvan University is ranked as 800 - 1000 universities of the world as per the Times Higher Education World University Rankings in 2021, published by the Times Higher Education (THE) magazine. It is ranked among the 251-300 best universities of Asia.

D.A.V. College, affiliated to Tribhuvan University, is one of the leading education hubs in Nepal since 2003. It runs different programs for science, mamagement & humanities at bachelor's and masters level. DAV promotes holistic experiential learning approach; considering the VUCA (volatility, uncertainty, complexity, ambiguity) and tech-agile world.





# Message from Chairman

"We cannot always build the future for our youth, but we can build our youth for the future."

- Franklin D. Roosevelt

These words by Franklin D. Roosevelt perfectly describe our aim at DAV College of Science, Humanities and Technology. Beyond providing a sound education, we wish to provide our students a holistic learning experience for life. Our aim is to teach students to LEARN, not just STUDY. Hence, we strive to travel beyond the boundaries of mere books. We have realized that the future is abstract and unknown but the youth in our hands are real and can be molded.

Dear students, "You are the nation-builders. You are the movers of technology. You are the agents of change." The knowledge that you will gain, the fine qualities that you will imbibe and the technical skills that you will learn to apply will be your major contribution to your family, to society, and to the nation. In todays world of ML, Al, AR & VR your inquisitiveness and agility will shape your future.

We invest our trust on you. You are our safe source and we bank all our efforts on you. We create not the future instead we craft you for the future.

"You don't have to be great to start, but you have to start to be great."

All best wishes for your future endeavour.

Anil Kedia
Chairman

### Research Cell

You'll study in an academic environment that helps brilliant thinkers turn inspiration into reality.



Mr. Anil Kedia
Chairman



Mr. Suman Basnet Member



Dr. Rameshwor Subedi (Ph.D.) Member



Mr. Shashi Bhushan Chaturwedi Member



Mr. Sudip Adhikari Member



Cybersecurity, Cisco certifications, Data Science with R/Python, DevOps)

and different programming languages.

Information Technology is the science of information, the practice of information processing and the engineering of information systems. Since information essentially shapes an organization, the student learns the effects of managing this information, both theoretically and practically. The teaching-learning approach coupled with practical experience gained during Industrial Training in reputed organizations, equips our students to handle the challenges posed by the software industry. D.A.V. College, is a center of excellence for quality education in Information Technology with special focus on emerging trends. We provide the Global organizations. certification courses in ICT (Big Data Hadoop, AWS Cloud, Microsoft Azure,

> Mr. Shashi Bhushan Chaturwedi Coordinator

BCA Course equips students with strong foundation in computer science & applications. The curriculum covers core topics such as programming, database management, web development, software engineering and elective courses, preparing students for diverse careers in IT industry. With a focus on practical, hands-on learning, the program also includes industry internships and projectbased assignments to enhance student's real-world skills and employability. Graduates of BCA Program are well positioned to pursue roles as software developers, web designers, IT support specialists and more in leading

> Mr. Sudip Adhikari Program Incharge



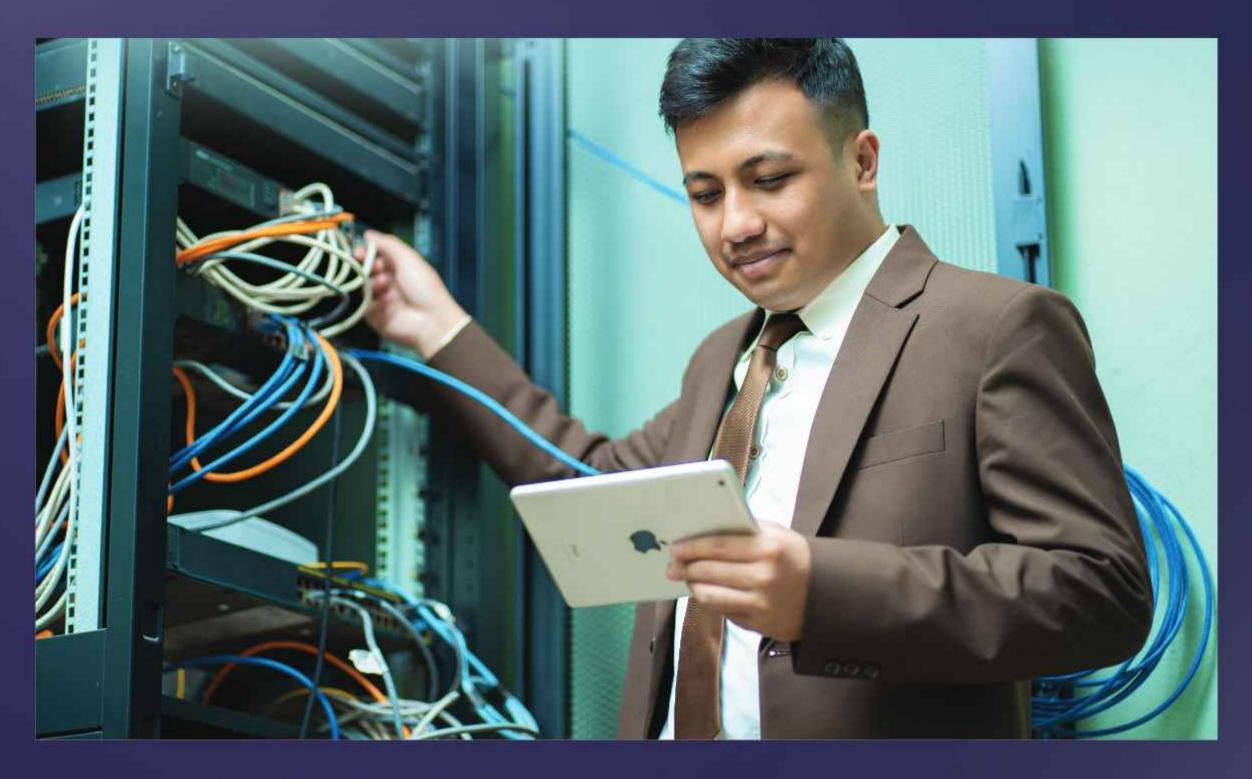
Today, Technology and Digital World Economy is of Multi trillion dollars, where AI, VR, AR & ML is playing prominent role. Every moment in the daily life of individual is governed by the technology. The ICT has become an indispensable part of every industry. The robotics, Machine learning, AI, NLP, VR & AR has become core of every industry in the world. Today out of top 10 global company (June 2024) IT companies like Microsoft, Apple, Nvidia, Alphabet (Google), Amazon & Meta Platforms belongs. The pay cheque of IT professionals is highest among any other professionals, like Lawyers, Doctors, Bankers, Sports person etc.

We cannot imagine any future job without computer and ICT application. All corporate house and big corporations communicate through computer applications and therefore, every human work will be done by the Machine (AI), without IT we cannot imagine any daily work performed.

More than 60% of all future jobs has direct or indirect connections with computers and its application. Future job will require skills of Computer & ICT. To address the market demand, Tribhuvan University has designed this BCA course as per the need to the future. Hence, the application of computer and ICT in medical, Engineering, Electronics, Technology, Automobile, Space, Transportation, Biotechnology, Genetics, Microbiology and others has opened the door to explore beyond the boundaries and add value to the life. Hence, course like BCA is very important for future job market. The DAV BCA produces the candidates who are ready to face the future job market.







### **Industry Labs**

DAV labs are designed to keep pace with rapid technological advances which require resources to house cutting-edge tools and resource-intensive software. All the systems are multimedia-enabled and run systems like Cyberoam, Juniper, Sophos Asa Firewall, Cisco Catalyst Router, Switch and Catalyst Firewall.

Computer Lab complements the students 'in-class' theoretical learning experience with practical knowledge and real-world examples. Students get hands-on experience with the latest trends, tools and best practices of the industry. The students also get an opportunity to practice live trending on global IT sectors.



### Highly Experienced & Expert Trainers at DAV

Your inner ability, skills and potentiality will be explored, enhanced and fostered by the highly experienced & expert trainers of DAV.



## Cognito DAV IT Club

This club aims at bridging the experiential learning gap between class room teaching and practical knowledge through various activities like International Certification Courses, Coding and Debugging, techstartups, tech-incubation etc.



### WHIZZY DAVIANS

The "Whizzy DAVians" club at our college offers a vibrant mix of sports and extracurricular activities. Students can explore their interests, develop new skills, and enjoy a balanced college life.

### Value Addition

### Project Ideation and Mind Mapping

Students engage in critical thinking and problem-solving exercises to develop a deep understanding of project requirements and objectives. Collaborative sessions encourage students to explore innovative solutions and consider multiple perspectives in project planning and execution.

### **Employment Communication**

Workshops and seminars focus on effective communication skills, including public speaking, presentation techniques and insights into the corporate world. Students learn to craft resumes or CV, cover letters, and portfolios to showcase their skills and experience to potential employers.

### **Project Showcase**

Students have the opportunity to present their projects to industry experts and faculty members. The project showcase event allows students to gain valuable feedback, network with professionals, and demonstrate their abilities. Outstanding projects may be eligible for funding and support to further develop and commercialize their ideas.

### Art of Living

Various activities focusing on developing a balanced and fulfilling lifestyle, emphasizing stress management, mindfulness, and personal growth. Inspirational talks by renowned life coaches provide students with insights and strategies for achieving personal and professional success. Students learn techniques to enhance their overall well-being, including yoga, meditation and healthy habits.

### Induction Session

The induction session welcomes new students to the BCA program, providing an overview of the curriculum, resources, and support available. Interactive sessions introduce students to emerging technologies and trends in the IT industry, sparking their curiosity and enthusiasm for the field.

### Entrepreneurship

Courses and workshops focus on developing entrepreneurial skills, including business planning, marketing strategies, and financial management. Students have the opportunity to participate in business plan competitions and pitch events, gaining valuable experience in presenting their ideas to potential investors.

### **TechnoSocial Engagement**

Students engage in projects and initiatives that address social issues using technology, developing a sense of social responsibility and community engagement. Knowledge sharing sessions with local organizations and communities provide students with hands-on experience in applying their technical skills to real-world problems.

#### **Experiential Learning**

The BCA program emphasizes practical, hands-on learning experiences, including internships, project-based courses, and field visits. Students have the opportunity to apply their knowledge and skills in real-world settings, gaining valuable experience and insights into the industry.





































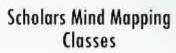
A library is not a luxury but one of the necessities of life.

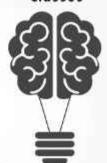






Globally Competitive Professionals Faculties





State of art infrastructure with cutting edge research technology





Workshop & project



Learning through earning





# **BCA Course Cycle**

### First Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS101	Computer Fundamentals & Applications	4
2	CASO102	Society & Technology	3
3	CAEN103	English I	3
4	CAMT104	Mathematics I	3
5	CACS105	Digital Logic	3
		Total	16

### Second Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS151	C Programming	4
2	CAAC152	Financial Accounting	3
3	CAEN153	English II	3
4	CAMT154	Mathematics II	3
5	CACS155	Microprocessor & Computer Architecture	3
		Total	16

### Third Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS201	Data Structures and Algorithms	3
2	CAST202	Probability & Statistics	3
3	CACS203	System Analysis & Design	3
4	CACS204	OOP in JAVA	3
5	CACS205	Web Technology	3
		Total	15

### Fourth Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS251	Operating System	3
2	CAC\$252	Numerical Methods	3
3	CACS253	Software Engineering	3
4	CAC\$254	Scripting Language	3
5	CACS255	Database Management System	3
6	CAPJ256	Project I	2
		Total	17

### Fifth Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS301	MIS and e-Business	3
2	CACS302	DotNet Technology	3
3	CACS303	Computer Networking	3
4	CAMG304	Introduction of Management	3
5	CACS305	Computer Graphics & Animation	3
		Total	15

### Sixth Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS351	Mobile Programming	3
2	CACS352	Distributed System	3
3	CAEC353	Applied Economics	3
4	CACS354	Advance Java Programming	3
5	CACS355	Network Programming	3
6	CAPJ356	Project II	2
		Total	17

### Seventh Semester

SN	Course Code	Course Title	Credit Hrs
1	CACS401	Cyber Law & Professional Ethics	3
2	CAC\$402	Cloud Computing	3
3	CAIN403	Internships	3
4		Elective I	3
5		Elective II	3
		Total	15

### Eighth Semester

SN	Course Code	Course Title	Credit Hrs
1	CAOR451	Operations Research	3
2	CAPJ452	Project III	6
3		Elective III	3
4		Elective IV	3
		Total	15

### List of Electives for VII semester

SN	Course Code	Course Title	Credit Hrs
1	CACS404	Image Processing	3
2	CACS405	Database Administration	3
3	CACS406	Network Administration	3
4	CACS407	Software Project Management	3
5	CACS408	Advanced DotNet Technology	3
6	CACS409	E-Governance	3
7	CACS410	Artificial Intelligence	3
8	CAPS476	Applied Psychology	3
		Total	18

### List of Electives for VIII semester

SN	Course Code	Course Title	Credit Hrs
1	CACS453	Database Programming	3
2	CACS454	Geographical Information System	3
3	CACS455	Data Analysis and Visualization	3
4	CACS456	Machine Learning	3
5	CACS457	Multimedia System	3
6	CAC\$458	Knowledge Engineering	3
7	CACS459	Information Security	3
8	CACS460	Internet of Things	3
		Total	18



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# Workshops and Training

You will graduate as an all-rounder with these technical and vocational abilities, and you will be the one to urge others to work on themselves as well! Have you ever encountered a smart intellect who lacked presentation skills or lacked comprehension of what they were saying? Regular seminars and trainings on a variety of technical and soft skills will help you cope with and solve difficulties like these.

### Following are the workshops that we are focused on:

#### ROBOTICS

In the fields of robotics, electronics, art, and technology, you will discover and improve your skills and creativity.

### **GRAPHICS DESIGN**

Our design classes are structured in such a way that no learner, whether a beginner or a seasoned pro, is left behind. Everyone will find something to their liking.

### **EVENT MANAGEMENT**

Learning how to perform under pressure, leading a team and the importance of communication will be instilled in you via various events you will organize in and out of the campus.

### DIGITAL MARKETING/BUSINESS BRANDING

You will learn how to take advantage of digital marketing, which is the next big thing. You'll be well-versed in everything from business promotion to attracting the attention of your target market.

### **ARTIFICIAL INTELLIGENCE**

To prepare you for the future, we teach the principles and techniques of artificial intelligence (AI), automation, and cognitive systems.

### DATA SCIENCE WITH R

With the ability to decipher big datasets and detect patterns among them. You will learn how to program in R and will be able to explore and improve your abilities and creativity in the fields of robotics, electronics, art, and technology.

### NATURAL LANGUAGE PROCESSING

To equip students with practical skills in text analysis, language modeling and conversational Al development





### WEB TECHNOLOGIES

You'll study the fundamentals of web development, as well as server knowledge and how to participate actively in open source projects.

### SOFTWARE ENGINEERING PRACTICES

You'll discover how software engineers and managers plan and develop software using concepts, principles, methodologies, and tools.

### **PHOTOGRAPHY**

We make sure you learn everything as a pleasant addition to the course, whether your love is photography or videography.

### **AGUMENTED REALITY & VIRTUAL REALITY**

You'll learn about the most cutting-edge VR technology and its applications in fields ranging from medical to engineering.

### MOBILE APPS DEVELOPMENT

We provide expertise in the development of mobile apps for a variety of platforms, including Android and iOS.

#### PRESENTATION SKILLS

We teach you how to communicate your ideas in front of a board or a crowd, in any case, we prepare you to succeed.

### **AGILE MINDSET**

We will instill in you the importance of teamwork and respect. Collaboration, improvement, and learning cycles, as well as pride in ownership, a focus on creating value, and the ability to adapt to change, with time.

#### **CREATIVE WRITING**

You'll study about creative writing and how it affects your personal and professional life, such as Business Proposals, Content Writing, and so on.

### GAME DEVELOPMENT

Game enthusiasts and fans of digital games will receive training on Unity, a cross-platform game engine.

#### SEO

You'll learn how to use search engines like Google and Bing to manipulate traffic and conversions on any website.

### SECURITY/TESTING

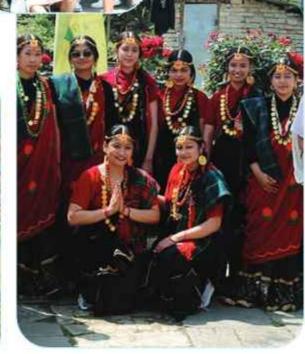
To offer a complete product, you will understand the ins and outs of the softwares, their weaknesses, and how to safeguard them.

































# Student's VOICE



Studying BCA at D.A.V. College has been an amazing journey, thanks to supportive teachers and friends. The teachers, who are more like mentors, have guided me through tough coursework and personal challenges. Collaborating on projects with friends who share my love for technology has improved my skills and created strong bonds. D.A.V. College's environment fosters both academic excellence and personal growth.





Studying BCA at D.A.V. has been an enriching journey that thoroughly prepares you for a career in IT. Beyond the comprehensive coursework, D.A.V. offers fantastic opportunities to engage in programs that empower women. The exposure to guest lectures from professionals in top IT companies has been incredibly motivating. Overall, it was a wonderful experience to have an excellent teacher and explore the real-world side by side.

Priya Bista BCA 2<sup>nd</sup> Batch



As a science student, I initially visited D.A.V. for a related course for my bachelor's degree. However, after discovering the BCA program and attending a counselling session, I became unexpectedly excited and decided to shift my focus from biology to information technology. The academic rigor, personal development opportunities, and supportive environment at D.A.V. made this challenging decision a rewarding turning point in my life.

### Swechchha Chhetri

BCA 3rd Batch



As a BCA student at D.A.V. College, I find my studies both interesting and valuable. We study a wide range of subjects, including software development, databases, and networking. The faculty is supportive and always willing to assist me. Studying at D.A.V. College has been a great step towards building a future in technology.

Anish Dangol
BCA 4th Batch

### Recruiter/Job Placement Partners





























































































































































































### BCA (Bachelor in Computer Application) Program

P.O. Box: 929, Jawalakhel, Lalitpur, Nepal

Hotline: 980-1372-1118

Tel: 01-5429029, 01-5441154

E-mail: info@davcollege.edu.np www.davcollege.edu.np







