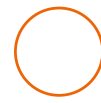




Affiliated to  
Tribhuvan University



**KCT** **Kathmandu  
College of  
Technology**

(Formerly Known as Samajik College)



**BCA**

**BSC. CSIT**



## Message from the CEO & Chairman

First, allow me to welcome you and also congratulate you for successfully completing +2 or A level. At this time you need appropriate guidelines and support to take a decision for higher education.

Kathmandu College of Technology has been offering BSc.CSIT & BCA. Within this short period we have grown beyond expectations and have won praise from industry leaders and well-known academicians as one of the best Technology Colleges.

With a combination of expertise and innovation, Kathmandu College of Technology always seeks new approaches to apply in delivering these qualifications. Our key team members are well qualified and trained to carry out their assigned roles and responsibilities. Our ultimate aim is to provide international standard learning environment and help students develop the abilities and skills to produce the results they desire for. We know that the future is unknown and abstract but the youths in our hands are real with immense creativity and potential. We make every effort and provide opportunities to unleash their creativity and demonstrate their potentials through different project works, independent assignments and workshops & seminars. We may not always build the future of our youths, but definitely we are building youths capable for the future.

My dear students, I want to share with you in simple words what I have learnt from experience; you don't have to be great to start, but you have to start now to be great. And you do not get a different result doing the same old things; you have to do something different. Definitely, Kathmandu College of Technology provides you the opportunity to do something significantly different and much better.

Look forward to meeting at Kathmandu College of Technology and wish you all the best.

**Yogesh Upreti**  
CEO & Chairman

## About KCT

**KCT**, a modern college, is established with an aim to significantly contribute to shape the career of +2 graduates in the field of IT and Computing. The course **B.Sc. CSIT & BCA** at **KCT** is affiliate to **TU**. The college, in fact, is committed to helping students develop skills, knowledge, and attitudes that help them pursue opportunities in IT and Computing.

**KCT** understands the advancement of computers and Information Technology which continues to have a profound impact on lives, and addresses the need of technically competent graduates to provide appropriate computing solutions that industry requires.

Besides curricula designed by the University, the college will also teach students soft skills, problem solving skills, critical thinking and industry relevant additional IT courses. Most importantly, the course taught offers both theoretical and practical applications where students are encouraged to apply their classroom instructions. Emphasis is placed on helping students to develop skills, knowledge in technical areas that have practical value in the workplace.

Studying at **KCT** provides its students a combination of leading-edge theory and technical knowledge plus hands-on practical experience to prepare our students for a successful career as an IT professional in Nepal and around the world.

## Aim

We aim to teach, train, guide, and motivate students to effectively make their way into a challenging and rewarding IT and computing career.

## Mission

The mission of the **KCT** is to expand human knowledge and benefit society through research integrated with education. We prepare students to investigate the most challenging, fundamental problems in technology while educating outstanding students to become creative members of society.

## Values

Institutional values influences how we make and carry out decisions, and how we interact with internal and external constituencies. Our core values are:

- › **Dedication**
- › **Honour**
- › **Respect**
- › **Responsibility**
- › **Trust**



# B.Sc.CSIT

B.Sc. Computer Science  
& Information Technology

The course is taught over the four years and in eight semesters. Students spend considerable time in the lab, where they are encouraged to apply what was taught in the classroom and see for themselves how, why and what makes things work.

## First semester:

- › CSC-109: Introduction to IT
- › CSC-110: C Programming
- › CSC-111: Digital Logic
- › MTH-112: Mathematics I
- › PHY-113: Physics

## Second semester:

- › CSC-160: Discrete Structure
- › CSC-161: Object Oriented Programming
- › CSC-162: Microprocessor
- › MTH-163: Mathematics II
- › STA-164: Statistics I

## Third semester:

- › CSC-206: Data Structure and Algorithms
- › CSC-207: Numerical Method
- › CSC-208: Computer Architecture
- › CSC-209: Computer Graphics
- › STA-210: Statistics II

## Fourth semester:

- › CSC-257: Theory of Computation
- › CSC-258: Computer Networks
- › CSC-259: Operating Systems
- › CSC-260: Database Management System
- › CSC-261: Artificial Intelligence

## Fifth semester:

- › CSC-314: Design and Analysis of Algorithms
- › CSC-315: System Analysis and Design
- › CSC-316: Cryptography
- › CSC-317: Simulation and Modeling
- › CSC-318: Web Technology

## Elective: Any one

- › CSC-319: Multimedia Computing
- › CSC-320: Wireless Networking

- › CSC-321: Image Processing
- › CSC-322: Knowledge Management
- › MGT-323: Society & Ethics in Information Technology
- › MGT-324: Microprocessor Based Design

## Sixth semester:

- › CSC-364: Software Engineering
- › CSC-365: Compiler Design and Construction
- › CSC-366: E-Governance
- › CSC-367: NET Centric Computing
- › CSC-368: Technical Writing

## Elective: any one

- › CSC-369: Applied Logic
- › CSC-370: E-commerce
- › CSC-371: Automation and Robotics
- › CSC-372: Neural Networks
- › CSC-373: Computer Hardware Design
- › CSC-374: Cognitive Science

## Seventh semester:

- › CSC-409: Advanced Java Programming
- › CSC-410: Data Warehousing and Data Mining
- › MGT-411: Principles of Management
- › CSC-412: Project Work

## Elective: any one

- › CSC-413: Information Retrieval
- › CSC-414: Database Administration
- › CSC-415: Software Project Management
- › CSC-416: Network Security
- › CSC-417: Digital System Design
- › MGT-418: International Marketing

## Eighth Semester:

- › CSC-461: Advanced Database
- › CSC-462: Internship

## Elective: Any two

- › CSC-463: Advanced Networking with IPV6
- › CSC-464: Distributed Networking
- › CSC-465: Game Technology
- › CSC-466: Distributed and Object Oriented Database
- › CSC-467: Introduction to Cloud Computing
- › CSC-468: Geographical Information System
- › CSC-469: Decision Support System & Expert System
- › CSC-470: Mobile Application Development
- › CSC-471: Real Time Systems
- › CSC-472: Network and System Administration
- › CSC-473: Embedded Systems Programming
- › MGT-474: International Business Management

## Career Path

- **Software Developer**
- **Web Developer**
- **Network Administrator**
- **Database Administrator**
- **IT Manager**
- **Cryptographer**
- **Ergonomics Program**
- **System Analyst**
- **Project Manager**
- **AI Specialist**
- **Information System Manager**
- **Database Operator**

Additional proposed courses the college teaches during the course. There can be variation as per the need of students and industry requirements

- **Website Development using CMS**
- **PHP**
- **Asp.net with C#**
- **CCNA**
- **JAVA**
- **android App**
- **linux**



## Why study B.Sc. CSIT at KCT

The college understands the need of twenty-first century organizations' needs and prepares its graduates who are capable of addressing needs of the industry. The programme prepares students to address the need of technically competent IT professionals that business industries, government bodies, NGOs, INGOs, hospitals, banks and other kinds of organizations require.

The college engages students in different project works and assignments which help them possess the appropriate combination of knowledge and practical to take care of both organization's information technology infrastructures and the people who use it.

Further, experiential learning and hands-on exposure to current and emerging technology is a key feature at **KCT's** CSIT course. You will have access to fully equipped and specialized computer laboratories right from the beginning of your course. Also, the college maintains strong industry links through research and educational programmes, so our students have the opportunity to be involved in the industry projects and work experience.

Most importantly, **KCT** puts all its efforts to produce graduates who are multi-skilled, multi-tasked and good human who will be well-rounded IT professionals with significant exposure to a diverse range of IT practices and possess the ability to meet the future needs of this ever-evolving and fast moving industry.



# BCA

## Bachelor's in Computer Application

Bachelor in computer application or (BCA) is a TU affiliated, four years undergraduate degree course in computer application. With the rapid growth of IT industry in worldwide, the demand of computer professional is increasing day by day. This increasing growth of IT industry has created a lot of opportunities for the computer graduates.

Bachelor in computer application (BCA) is one of the courses that connects students to an promising career in computing and IT. The course helps studnets develop a lot of practical in hand skills in different areas in IT and computing. The students interested in computer field and wants to work in the IT sector as programmer or software develop can study this course.

### FIRST YEAR

SN	First Semester	SN	Second Semester
1.	Computer Fundamentals & Applications	1.	C Programming
2.	Society & Technology	2.	Financial Accounting
3.	English I	3.	English II
4.	Mathematics I	4.	Mathematics II
5.	Digital Logic	5.	Microprocessor & Computer Architecture

### SECOND YEAR

SN	Third Semester	SN	Fourth Semester
1.	Data Structures & Algorithms	1.	Operating System
2.	Probability and Statistics	2.	Numerical Methods
3.	System Analysis and Design	3.	Software Engineering
4.	OOP In Java	4.	Scripting Language
5.	Web Technology	5.	Database Management System
		6.	Project I

### THIRD YEAR

SN	Fifth Semester	SN	Sixth Semester
1.	MIS and e-Business	1.	Mobile Programming
2.	DotNet Technology	2.	Distributed System
3.	Computer Networking	3.	Applied Economics
4.	Introduction to Management	4.	Advanced Java Programming
5.	Computer Graphics & Animation	5.	Network Programming
		6.	Project II

### FOURTH YEAR

SN	Seventh Semester	SN	Eighth Semester
1.	Cyber Law & Professional Ethics	1.	Operations research
2.	Cloud Computing	2.	Project III
3.	Internships	3.	Elective III
4.	Elective I	4.	Elective IV
5.	First Year Elective II		

### LIST OF ELECTIVES COURSES

SN	Course Title
1.	Applied Psychology
2.	Geographical Information System
3.	IT in Banking
4.	Hotel Information System
5.	Enterprise Resource Planning
6.	Knowledge Engineering
7.	Advanced DotNet Technology
8.	Database Programming
9.	Database Administration
10.	Network Administration

### ENTRY REQUIREMENT

+2 or A level in any discipline



## Students Testimonial



**“Teaching, training, guidance, and motivation”**, a complete package of effective learning is what we can absolutely expect from **KCT**. Reading, writing and mutual interactions are common things; what we have here is: ‘preparation to our best level in order to get the right track for Journey of success to make our life meaningful, additionally.’ **KCT** brings us a group of like-minded, creative, vibrant and qualified young teachers with enormous enthusiasm coming together on one platform to foster the education status of the students. **KCT** provides its students a combination of leading-edge theory and technical knowledge plus hands-on practical experience to prepare students for a successful career as an IT professional in Nepal and around the world. So, I am very proud to be the part of **KCT** and claim that I was completely right when I chose **KCT**.

**Niraj Baidya**  
Bsc.CSIT (Batch 2070)



“Where will I get the best education?” was the question frequently striking my mind. Finally, after observing many colleges, I decided to pursue my bachelor’s degree from **KCT** because of its academic excellence. And I have no any regrets regarding my decision as **KCT** has given me everything I needed from a College – highly motivating and supportive learning environment along with excellent teaching facilities, great learning resources and more practically focused learning to grab various opportunities in the field of IT.

It is the platform which helped me to shape my thoughts, build a path leading to my dreams and explore my ideas in different sectors. Here, extracurricular activities go hand in hand with Academics which indeed is a heavenly experience. I am proud to be one among the lucky students. And now, turn is yours.

**Suesha Giri**  
Bsc.CSIT (Batch 2073)





(Formerly Known as Samajik College)

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