



B.E. in  
**COMPUTER SCIENCE  
& TECHNOLOGY**

**CHITKARA**  
INTERNATIONAL  
COLLEGE

**ASU** Arizona State  
University



**THE FUTURE OF  
GLOBAL EDUCATION,  
NOW STARTING IN INDIA**



## **Bachelor of Engineering (B.E.) in Computer Science & Technology**

**Enroll in the 4-year B.E. program  
in Computer Science & Technology  
at Chitkara International College, India  
In Collaboration with  
Arizona State University, USA**

This unique program offers students the opportunity to enroll in Chitkara University's B.E. in Computer Science and Technology, take classes for 2 years in India, then seamlessly transfer select credits to earn a B.S. in Computer Science degree from ASU in 2 more years. Arizona State University has consistently ranked as the most innovative university in the U.S. by U.S. News and World Report for 9 consecutive years, 2016-2024.

# CHITKARA UNIVERSITY



## CHITKARA UNIVERSITY PUNJAB

Chitkara University is a UGC recognised University with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956 and is established by the Punjab State Legislature under, "The Chitkara University Act".



## CHITKARA UNIVERSITY HIMACHAL PRADESH

Chitkara University is a UGC recognised University with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956 and is established by the Himachal Pradesh State Legislature under "The Chitkara University Act".





# RECOGNISED FOR EXCELLENCE



Chitkara University has been awarded A+ rating by National Assessment and Accreditation council (NAAC) which places us among the top 5% of Higher education institutions in India.



Our programs have once again been ranked among the Nation's Best in the 2023 NIRF Ranking.



We have been ranked 2nd across country in the prestigious ARIIA 2022.



We are proud to be ranked among the world's best in the QS World University Rankings: Asia 2024.



Chitkara University has achieved the overall position of 301-400 and an impressive 5th position in India.



Chitkara University makes it into Top 200 in Clarivate Analytics' leading innovators list 2021.



Year after year, Chitkara University has been ranked among the Top 10 Universities of the country for filing maximum patents.



Ranked as one of the Cleanest Universities of India in the 'SWACHHTA' ranking.

Consistently ranked highly by:



# EXPLORE YOUR POTENTIAL WITH CHITKARA U.

CHITKARA EDUCATION BRINGS WITH IT A REPUTATION FOR EXCELLENCE AND INNOVATION THAT HAS BEEN EARNED THROUGH YEARS OF SERVING THE CAREER-NEEDS OF THE STUDENT COMMUNITY.



## **STRONG ACADEMIC HERITAGE**

Chitkara University has been established and managed by passionate academicians with the sole mission of making each and every student "industry-ready".

## **BEST LOCATION**

With a high quality of living and vibrant student mix, Chandigarh, also known as City Beautiful, has rightfully earned its place as one of the safest and most livable cities in the country.

## **TOP 20 RANKING**

Chitkara University has been consistently ranked among the top 20 Private Universities of the country.

## **MODERN FACILITIES**

Chitkara University has made huge investments in developing student facilities and giving our students access to world-class labs, design studios, libraries, sporting and social facilities.

## **LEADING INNOVATION**

Chitkara Innovation Incubator helps turn students' business ideas into reality. Student ventures with scalable, commercial potential are given access to high tech, a collaborative office space, and are paired with industry mentors to develop scalable business plans and market testable products and services.



Since inception, Chitkara University has had a path breaking recruitment record for graduates from various academic programs. Some of our prominent recruiters on campus are:

				
				
				
				
				

Discover an American  
Education pathway  
closer to your home

### ASU Charter

ASU is a comprehensive **public research university**, measured not by whom it excludes, but by **whom it includes** and how they **succeed**; advancing **research and discovery** of public value; and assuming **fundamental responsibility** for the economic, social, cultural and overall health of the **communities** it serves.

**ASU**





Chitkara University joins hands with Arizona State University (ASU) in a groundbreaking collaboration that promises to redefine educational benchmarks and elevate the student experience. This groundbreaking partnership leverages ASU's reputation as the #1 most innovative university in the U.S. for 9 consecutive years by U.S. News and World Report (2016-2024) and Top 10 among U.S. universities for patents by U.S. National Academy of Inventors, 2023.

Chitkara University has further solidified its commitment to global education by establishing the Chitkara International College (CIC) in collaboration with Arizona State University (ASU). This collaboration marks a significant milestone as Chitkara University becomes the first University in Punjab to partner with ASU, a university ranked among the top 150 globally by the ShanghaiRanking in 2023. In line with this collaboration, the Chitkara International College will exclusively offer ASU programs to students in the region.

Chitkara University has initiated a 2+2 program in Bachelor of Engineering (B.E.) in Computer Science & Technology for the academic year 2024, in collaboration with Arizona State University integrating into our program their curriculum further enhanced with the opportunities to participate in additional certificates and engagement with prominent ASU faculty, like Masterclasses and more. This marks the beginning of a transformative journey towards providing our students with a comprehensive and globally relevant education.

The 4-year Bachelor of Engineering in Computer Science & Technology program has been developed and mapped to the curriculum of 4-year Bachelor of Science in Computer Science (BS) degree program at Arizona State University (ASU).

You will study first two years in India at Chitkara International College before transferring select credits to ASU for 3rd and 4th year. In the first two years, you will learn an applied American pedagogy when you start closer to home before transferring after two years to ASU in U.S. While saving exponentially on international tuition fees in your first two years at Chitkara International College, you will also save on boarding and lodging costs. Should your plans to go to U.S. change, you would have the option to complete the B.E. degree from Chitkara University in India.

The Computer Science program provides students with the option to specialise in Software Engineering (SE) or Cybersecurity at ASU in the third and fourth year, delivering an immersive learning experience aligned with ASU's curriculum.

There are many firsts here, an international curriculum delivered in an international infrastructure, opportunities to engage with ASU faculty, 100% credit transfer to ASU subject to meeting credit transfer requirements and a globally recognised 2+2 program. Students enrolled in this program can earn the coveted ASU degree in America and also will have an opportunity to pursue Optional Practical Training (OPT) under STEM program eligibility, permitting work in the U.S. for up to 3 years.





## **4-YEAR B.E. IN COMPUTER SCIENCE & TECHNOLOGY IS MAPPED TO THE CURRICULUM OF 4-YEAR BS IN COMPUTER SCIENCE DEGREE AT ARIZONA STATE UNIVERSITY (ASU)**

**Access to ASU Curriculum:** Benefit from a world-class education with access to courses and resources from ASU, Phoenix, USA within your home country and leverage a smart campus design for virtual international learning experiences, enabling the exchange of innovative methodologies and cutting-edge technology.

**2+2 Program Opportunity:** Begin your studies in India and smoothly transition to complete your degree at ASU's campus in the U.S., enhancing your academic achievements and global employability.

**Faculty Excellence:** Opportunities to engage with top ASU faculty and benefit from continuous faculty development through training by top experts, ensuring teaching and research outcomes are consistently elevated.

**Gain International Learning Opportunities:** Embark on an enriching international learning journey through study abroad and immersion programs in the U.S. or other global locations. Benefit from student mobility programs that broaden perspectives and offer diverse cultural experiences.

**Seamless Academic Progression:** Achieve comparable learning outcomes during your initial two years at Chitkara International College to students at ASU in the U.S. This sets the stage for enhanced academic success when transferring to the Bachelor in Computer Science program at Arizona State University in your third year.



## **PROGRAM FRAMEWORK AT CHITKARA INTERNATIONAL COLLEGE Year 1 & Year 2**

Some of the courses you will cover in the first 2 years of B.E. in Computer Science & Technology are:

- Principles of Programming Java
- Object-Oriented Programming & Data Structure
- Calculus for Engineers
- Discrete Mathematical Structures
- Digital Design Fundamentals
- Computer Organisation & Assembly Language Programming
- Data Structure & Algorithms

# PROGRAM FRAMEWORK AT ARIZONA STATE UNIVERSITY

## Year 3 & Year 4

Some of the courses you will cover are:

- Computing Ethics
- Introduction to Theoretical Computer Science
- Introduction to Software Engineering
- Information Assurance
- Probability and Statistics
- Operating Systems
- Principles of Programming Languages
- Database Management
- Computer Networks
- Distributed Software Development
- Applied Linear Algebra

**In the 3rd and 4th years, students will have 3 tracks to choose from: They can opt to pursue the BS in Computer Science without specialisation, or they may choose from one of the two concentrations: Software Engineering or Cybersecurity.**

### **Bachelor of Science (BS) in Computer Science with a concentration in Software Engineering**

Students enrolled in the computer science BS with a concentration in software engineering will delve into the development of distributed software, service-oriented applications, modeling notations, software architectures and other tools and skills necessary to work as a software engineer or software task leader on both large and small projects. This specialisation provides a robust foundation for advanced studies and engaging in research and development in emerging domains like model-based design, enterprise software engineering, service-oriented architecture, simulation-based software development, and visual modeling system-of-systems engineering.

Some of the courses covered are:

Distributed Software Development | Software Analysis and Design | Software Integration and Engineering  
Software Quality Assurance and Testing

### **Bachelor of Science (BS) in Computer Science with a concentration in Cybersecurity**

The goal of this concentration is to equip students with comprehensive knowledge, skills, and advanced development capabilities in science and engineering specific to cybersecurity. This includes expertise in computer and network security, software security, data and information security, applied cryptography, and computer forensics. Graduates of this specialisation not only possess a competitive advantage for advanced studies or employment but also demonstrate a commitment to ethical cybersecurity practices and effective risk mitigation strategies in the ever-evolving landscape of digital security.

Some of the courses covered are:

Information Assurance | Computer Systems Security | Computer Network Security  
Computer and Network Forensics | Artificial Intelligence for Cybersecurity

# Harness ASU's global reputation as the No. 1 school for innovation, global impact and sustainability

Arizona State University, ranked the No. 1 "Most Innovative School" in the nation by U.S. News & World Report for nine years in succession, has forged the model for a New American University. Year after year, ASU ranks at or near the top of the list in areas that matter.

ASU is a comprehensive public research institution, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

# #1 public university in the U.S. chosen by international students

ASU ahead of the University of Illinois, Purdue and University of Michigan

-Institute of International Education, 2023



## A commitment to reducing our carbon footprint

ASU is one of just two universities in the U.S. (and only 43 worldwide) to have achieved net zero greenhouse gas emissions. The net zero goal was reached six years ahead of our target.

## Top 10 in the World for U.S. patents

ASU along with MIT, Stanford and Harvard  
— U.S. National Academy of Inventors, 2023



## ASU students win \$1M XPRIZE

A team of students beat out nearly 1,000 worldwide entries to be named the winner of the XPRIZE competition for their design of a functional, comfortable mask to prevent the spread of COVID-19.



## ASU student innovators win international competition

After beating out 182 teams, two first-year ASU students represented the U.S. on the world stage against 44 other countries, where they won for their idea for a revolutionary note-taking tool.



**A leader in the semiconductor revolution**

Students are becoming prepared for the critical semiconductor industry, while ASU is helping to add more jobs and strengthen the economy by providing research, education, innovation and talent for the industry.



**Untangling the origins of Alzheimer's**

An ASU professor is making advancements in Alzheimer's disease research with new technology that looks at its origins on the molecular level.

**#1 in the U.S. for innovation**

**ASU ahead of MIT and Stanford**

**— U.S. News & World Report, 9 years, 2016–24**

**#1 in the U.S. and #2 in the world for sustainable practices**

**— Sustainability Tracking, Assessment & Rating System, 2023**

**#1 in the U.S. and top 10 in the world for global impact**

**in research, outreach and stewardship**

**— Times Higher Education, 2023**



**Professor's groundbreaking research cleans the air**

A carbon capture system based on an ASU professor's innovative research is being funded by the Department of Energy. The mechanical trees catch and store carbon from the air at an estimated rate of 1,000 times that of an actual tree.

# # 13 in the U.S. for undergraduate teaching

ASU ahead of Yale and Stanford  
- U.S. News & World Report, 2024



**2,600+**

ASU students study abroad each year.

**15,200+**

International students study at ASU.

**155+**

countries represented at ASU.



# Strengthen your academics with tutoring, mentoring and support

when admitted to ASU in the 3rd year of the Program



## Mentorship

You can find a mentor at ASU by working closely with a professor on a research project or visiting your instructors during their faculty office hours.



## Tutoring

ASU offers free tutoring and writing help so you can catch up or get ahead in your classes.



## Academic advising

Your academic advisor helps ensure you're taking the right classes and are on the most efficient path to graduation.



## eAdvisor™

Monitor your progress toward your degree with this online tool. You can see what classes you need to take and which semester to take them, and receive an alert if you fall off track.



## Faculty office hours

All professors hold weekly office hours. This is your chance to talk to them about a concept you're struggling with in class, or to have a chat and build your network.



## Peer coaching

Get support in your transition to college life by connecting with a peer mentor who can offer tips and advice as you settle in to your first year.



## ASU Mobile App

Access your grades, schedule and financial aid information, and find ASU events, maps, library resources and more, all on your phone.



## Health and wellness

ASU offers wellness resources such as the Sun Devil Fitness Complex, a huge gym with all the latest equipment. You'll also have access to comprehensive health care — including primary care, immunizations, lab services, acupuncture and women's health — and specialized LGBTQIA programs and initiatives.



## Counseling 24/7/365

ASU students can receive free, unlimited counseling services day or night wherever they are in the world.



## Family support

Your family is part of your college journey, too. ASU offers resources and information to keep them connected to the ASU community.



## Join your academic home

From engineering to journalism, business to sustainability, nursing to education and beyond, ASU offers 16 colleges and schools that you can choose from to be your academic home. Each school offers specialized programming and advising, research opportunities, and an outstanding academic experience designed to prepare you for the next step in your life. And if you're not sure what you want to study, we have programs to help you figure it out.

ASU has a strong reputation for academic excellence, including nationally ranked programs.

### Top 10

Supply chain management  
Business analytics  
Teaching

### Top 20

Business management  
Marketing

### Top 25

Artificial intelligence  
International business

– U.S. News & World Report

### A leader

in undergraduate education  
– The Princeton Review, 2023



## **Excel** in your profession

When the job you'll have in the future may not even exist yet, how do you prepare for it? ASU Career and Professional Development Services offers tools, resources and guidance to help you get ready. You'll have access to ASU's robust network of industry partners and internship opportunities. Plus, the innovative career platform Handshake enables you to connect with employers, get information on upcoming career events, research companies and share your resume.

## **Top 10 in the world for student-employer connections**

due to a robust network of industry partners, abundant internship opportunities and an innovative career platform to connect you with employers.

Ahead of Princeton, MIT and Stanford  
- QS World University Rankings, 2022



## Top employers for graduates

- Amazon
- Banner Health
- Boeing
- Honeywell
- Intel Corporation
- Starbucks
- State of Arizona
- United States Armed Forces
- United States federal government

– ASU Career and Professional Development Services

**180+**

companies launched based on ASU innovations.

**\$670+**

million in external research funding.

**4,400+**

invention disclosures.

**500+**

people employed at ASU-linked startups.

**500,000+**

members of the ASU alumni network.



## CAREER OPPORTUNITIES

Career opportunities for computer science graduates are diverse, spanning roles in computer and software design, information technology development, and more. These professionals are distinguished by their high-level theoretical expertise, addressing complex problems and innovating new computing technologies.

Potential roles include creating computer games, designing artificial intelligence systems, developing mobile applications, ensuring network security, and solving large-scale data analytics challenges. Graduates can excel in system and software development, utilising their theoretical foundation to design effective computing solutions for contemporary societal challenges. This skill set also opens avenues for entrepreneurial activities, leading to the creation of innovative computing products and services.

Some of the potential career profiles that you can start after you graduate from this Program are:

Computer Programmer | Computer Science Professor | Computer Scientist | Software Developer  
Computer Software Quality Engineer | Database Administrator (DBA) | Information Security Analyst  
Telecommunications Engineering Specialist | Graphic Information Systems Technician (GIS Technician)



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**ASU**® Arizona State  
University



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University**

**UNIVERSITY CAMPUS**

Chandigarh-Patiala National Highway  
Punjab-140 401 | India

**INFORMATION CENTRE**

Unit No. A 201-202, Elante Mall Office Complex,  
Industrial Area Phase I, Chandigarh, 160002.

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[admissions@chitkara.edu.in](mailto:admissions@chitkara.edu.in)

**Admissions Helpline:**

**+91 82880 88578**

For more information about our programs  
give a miss call on **1800 267 1999**