



**Programme Coordinator** 

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The Admission Officer

**UG Admission Committee 2023** 

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**Admission Office Timings** 

11.00 a.m. to 4.00 p.m. (Monday to Friday) 9.00 am to 3.00 pm (Odd Saturdays)





























# **BACHELOR OF SCIENCE**

(Computer Science and Engineering)

[2+2 Dual Degree] Programme

**GO GLOBAL** 

# **NIRMA UNIVERSITY**

Established in 2003, Nirma University, Ahmedabad, is a value-driven, research-oriented, student-centric, multidisciplinary, not-for-profit state private university. Within a short period, the university has emerged as a nationally renowned higher education institution. The university received NAAC A+ grade in its third cycle of accreditation. It is also awarded the Centre of Excellence (CoE) status by the Government of Gujarat. The university and its constituent institutes have also received high rankings from renowned national ranking agencies such as the National Institutional Ranking Framework (NIRF), and Gujarat State Institutional Rating Framework (GSIRF). The constituent institutes, departments and centres facilitate the all-round development of the students. The lush-green campus is well-equipped with state-of-the-art infrastructure to support academic, cultural, sports and other activities.



# **INSTITUTE OF INTERNATIONAL STUDY**

The university has recently established the Institute of International Study in 2022 as one of its constituent institutes. The Institute of International Study in collaboration with School of Technology, Nirma University has introduced a dual degree - Bachelor of Science (Computer Science and Engineering) [2+2 Dual Degree] programme where the student will study for the first two years at Nirma University and the remaining two years at a partner university abroad. The institute aims to provide Indian students with international educational opportunities at a partner university abroad. On successful completion of the programme, the undergraduate degree will be awarded by the partner university and the Nirma University (separately). To facilitate this programme, the university has entered into MoUs with some of the leading universities in the USA and Canada.

# COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

The department of Computer Science and Engineering endeavors to meet the challenges of changing technology and Industry 4.0. The department is equipped with a talented pool of faculty members, meritorious students and state-of-the-art infrastructure. The regularly updated curriculum meets the diversified needs of the industry. The department offers BTech CSE, MTech CSE, MTech CSE (Cyber Security) and MTech CSE (Data Science), Master of Computer Application (MCA), Integrated BTech CSE MBA, Bachelor of Science CSE [2+2 Dual Degree] programme and PhD programme.

In addition to basic computing facilities, the department has established advanced laboratories housing high-end workstations, NVIDIA Ampere, Volta and Pascal GPU systems, CISCO networking equipment, IoT devices, HCI devices and specialized software for cyber security and forensics.

The department has strong collaboration with research organisations and leading industries like ISRO, PRL, IPR, BISAG, NVIDIA, Infosys, CISCO Network Academy and Johnson Control Hitachi Air Conditioning India Limited for academic and research purposes. Linkages with top-notch Universities abroad have also facilitated student internships, preapproved MS programmes, and faculty exchange in the department.

The department takes pride in its alumni presence in reputed industries like Google, Amazon, Facebook, Oracle, Intel, Morgan Stanley, Microsoft, Goldman Sachs, HSBC, Bosch, Bloomberg LP and many more.

#### CENTRE OF EXCELLENCE IN DATA SCIENCE

The department has established the Centre of Excellence in Data Science in association with SUNY Binghamton University, New York. The Centre offers training, research, consultancy, global internship opportunities to students, avenues to go for higher studies, innovative projects and expert talks, among others. It also arranges national-level MINeD Hackathon every year. To support the activities of the centre and the university, a High Performance Computing (HPC) Cluster is established in the centre.

## **ABOUT THE PROGRAMME**

The National Education Policy 2020 (NEP) emphasizes on internationalization of higher education and global exposure. Recently, the University Grants Commission (UGC) has come out with a provision for Dual Degree programme.

In line with the NEP and UGC guidelines, the 2+2 Dual Degree programme, leading to the undergraduate Bachelor of Science (Computer Science and Engineering) degree, is offered by the Institute of International Study, Nirma University under the Faculty of Technology & Engineering in academic collaborations with the highly ranked prestigious universities from US and Canada.

The students enrolled in this programme study in the Computer Science and Engineering department of Nirma University for the first two years. On successful completion of the first two years, they will study in a partner university in US/Canada for the next two years. The regulations of the partner university will be applicable for the third and fourth years and for the award of the degree. The undergraduate degree will be awarded by the partner university and also separately by Nirma University. Please note that the engineering undergraduate degree offered in US/Canada is BS (Bachelor of Science), not BTech.

It is the student's responsibility to clear the English proficiency test by appearing in the TOEFL or IELTS examination and apply for a student visa with a valid passport at US/Canadian embassy.

In case a student could not fulfill the academic requirements of the first two-year phase or could not get admission/visa for the next two-year phase, he/she will continue his/her study at Nirma University and will be governed by the regulations of Bachelor of Technology programme of Nirma University for the said period of study and for awarding the Bachelor of Science (Computer Science and Engineering) degree.

Nirma University has academic collaborations with the following universities:

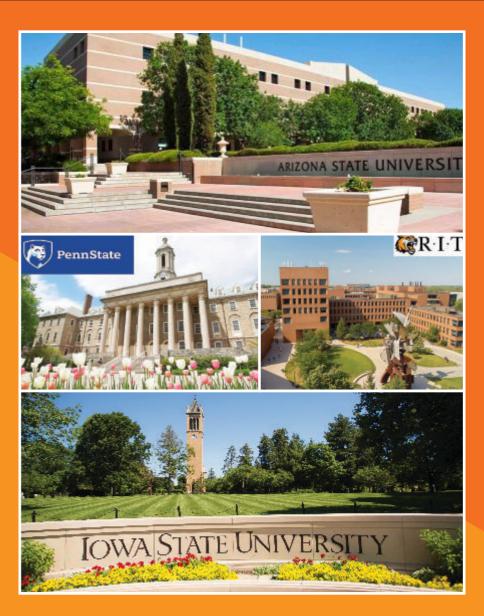
#### **United States:**

- University of Southern California, CA
- · Arizona State University, AZ
- · Iowa State University, IA
- Penn State University, PA
- · Florida Atlantic University, FL
- State University of New York at Binghamton, NY
- University of Houston, TX
- · Rochester Institute of Technology, NY
- · Virginia Commonwealth University, VA

#### Canada:

- Dalhousie University
- Carleton University
- University of Victoria
- · Memorial University of Newfoundland





### ADVANTAGES OF THE DUAL DEGREE PROGRAMME

US and Canada offer state-of-the-art education and professional opportunities in Computer Science and Engineering (CSE). The students who have developed a strong foundation in CSE through two years of undergraduate education at Nirma University can easily transition into the final two years of a bachelor's degree at our partner university in the US or Canada as the curriculum for the first two years at Nirma University is in line with the requirements of partner universities. They would be exposed to the modern technological infrastructure and global environment in the US and Canada that will bring the best out of them. The Dual Degree programme has a global appeal and it offers an impressive career across the globe.

# **CURRICULA FOR FIRST 2 YEARS AT NIRMA UNIVERSITY**

#### SEMESTER - I

- · Linear Algebra
- Physics
- Electrical Science
- Computer Programming I
- · Digital Design: Theory and Practice
- Rhetoric and Composition
- Ethics and Value

#### SEMESTER - III

- · Discrete Mathematics
- Data Structures
- Principles of Economics
- · Object Oriented Programming
- Computer Organization and Assembly Language Programming
- Effective Speech
- Internship

#### SEMESTER - II

- Calculus
- Chemistry
- Design Thinking and Creativity
- · Effective Writing
- · Environmental Science
- · Probability and Statistics
- · Computer Programming II

#### **SEMESTER - IV**

- Introduction to Design and Analysis of Algorithms
- Differential Equations and Laplace Transform
- Principles of Software Development
- · Web Technologies
- · Operating Systems
- · Organizational Behaviour



### INTAKE

#### Number of Seats: 60

• Regular Category: 51

NRI/NRI Sponsored Category: 09

 Supernumerary Seats for 09 Gulf(CIWGC)/OCI/FN:

#### **ADMISSION PROCESS**

#### **ELIGIBILITY**

The candidate must have passed the qualifying Class-XII (Science Stream) examination with a minimum of 60 percent aggregate marks, and with the subjects Mathematics and Physics, and any one of these: Chemistry, Computer Science, Electronics, Information Technology, Biology, Informatics Practices, Biotechnology, Technical Vocational subject, Agriculture, Engineering Graphics, Business Studies, Entrepreneurship.

#### **SELECTION CRITERIA**

- Regular Category and NRI Sponsored Based on merit of either JEE-MAIN 2023 or GUJCET 2023
- GULF(CIWGC)/OCI/FN and NRI Based on merit marks of Physics, Maths & Chemistry of qualifying Exam. (JEE-MAIN or GUJCET not required)

#### **PROGRAMME FEES**

#### First Two Years:

- USD 6500 per year for regular category and CIWGC category
- USD 7500 per year for NRI/NRI Sponsored and OCI / FN

#### 3<sup>rd</sup> and 4<sup>th</sup> Year:

• AS per the partner university of US/Canada.

#### **HOW TO APPLY**

- Regular and NRI/NRI Sponsored Category https://technology.nirmauni.ac.in/dualdegree
- Gulf (CIWGC) /OCI/FN Category https://internationalrelations.nirmauni.ac.in/ admissions/