



THE UNIVERSITY OF NOTRE DAME AUSTRALIA

# Bachelor of Computer Science

# Bachelor of Computer Science

***School of Arts & Sciences***

***Embark on a journey of innovation and exploration with our cutting-edge Bachelor of Computer Science program. Designed for the next generation of software engineers, data analysts, cyber security specialists, machine learning researchers, or technology entrepreneurs, our program merges theory with practice to cultivate the skills needed to thrive in today's dynamic digital landscape.***

***Our Bachelor of Computer Science is a cutting-edge degree designed for the next generation of software development engineers, cyber security specialists, data analysts, artificial intelligence engineers and tech entrepreneurs. The comprehensive program combines practical and problem-based learning experiences with strong industry links, and develops transferable skills that prepare graduates***

***for successful careers in a dynamic field where demand for skilled professionals is consistently growing.***

## **Why study this degree?**

This program is perfect for anyone wishing to develop their knowledge and skills in the ever-advancing field of computer science, with topics ranging from artificial intelligence, machine learning, network security, cybercrime and digital forensics, data visualisation, and big data analytics to programming languages, algorithms and more. In addition to acquiring fundamental computer science knowledge and skills, students will have the opportunity to specialise in one of three areas: artificial intelligence, cyber security or data science. Each of these specialisations will see students explore specialist topics as part of a rigorous curriculum relevant to today's evolving digital landscape.

Our partnerships with industry mean students benefit from access to internships, work placements and opportunities to begin building their professional networks, all while studying at a university which places pastoral care and individual success at the forefront of its approach to tertiary education. You also benefit from expert lecturers, many of whom are leaders in their field.

Graduates of this degree join the workforce prepared to tackle new and existing challenges in the tech industry, both today and into the future. They do this in roles such as software developers, data scientists, network administrators, cybersecurity analysts and machine learning engineers.

**Industry-Relevant Curriculum:** Stay ahead of the curve with a curriculum crafted to meet the current and future industry demand. Artificial Intelligence, Cyber Security, or Data Science, our program offers choices to specialise in one of these three areas tailored to meet the demands of the ever-evolving tech industry.

**Hands-On Learning:** Dive into real-world projects and experiential learning opportunities that bridge theory with practical applications. Gain invaluable experience working on industry-inspired projects and solving complex challenges.

**Expert Faculty:** Learn from experienced faculty members and computer science professionals who are at the forefront of computer science research and innovation. Benefit from their guidance, mentorship, and industry insights.

**State-of-the-Art Facilities:** Access top-of-the-line University of Notre Dame's purpose-built computer science labs equipped with the latest tools and technologies. Whether it's high-performance computing, virtual reality tools, development kits, or humanoid robots, our campus provides the perfect environment for exploration and experimentation.

**Career Readiness:** Prepare for success in the digital age with career-focused resources and support. From industry-aligned projects to networking events, we offer a range of opportunities to connect with leading employers and kickstart your career journey.

## **Program summary**

### **14 Compulsory Courses**

- COMP1001 Computer Systems and Networks

- COMP1002 Mathematics for Computer Science
- COMP1004 Database Systems
- COMP1006 Web Design and Development
- COMP1007 ICT Project Management and Governance
- COMP2001 Data Structures and Algorithms
- COMP2002 Artificial Intelligence
- COMP2007 Team Project
- COMP2014 Principles of Cyber Security
- COMP2015 Systems Analysis and Design
- COMP3001 Industry-linked Project A
- COMP3002 Industry-linked Project B
- COMP3003 Software Testing and Quality Assurance
- COMP3008 Advanced Topics in Computer Science

# core-curriculum

## Core Curriculum

- CORE I: Foundations of Wisdom
- CORE II: Elective
  - Electives in philosophy and/or theology
  - Professional embedded electives that integrate studies in a profession with philosophy and/or theology
  - An option to undertake a pilgrimage embedded in the study of the philosophy and theology of pilgrimage, e.g., World Youth Day
  - An option to undertake a course that integrates philosophy & theology with community service and charity work

- An option to undertake an elective in philosophy, theology, and the liberal arts contained within an international experience
- 

## **Computer Science Major (8 Courses)**

All students in the Bachelor of Computer Science are required to complete at least one of the following Majors:

- Artificial Intelligence
- Cyber Security
- Data Science

# arts&sciences

More information regarding courses can be found at the course descriptions pages Fremantle (<https://www.notredame.edu.au/about/schools/fremantle/arts-and-sciences/course-descriptions>) Sydney (<https://www.notredame.edu.au/about/schools/sydney/arts-and-sciences/course-descriptions>).

Full details of the program requirements are contained in the Program Requirements ([https://www.notredame.edu.au/\\_\\_data/assets/pdf\\_file/0023/443/of-Computer-Science.pdf](https://www.notredame.edu.au/__data/assets/pdf_file/0023/443/of-Computer-Science.pdf)).

*Please note: The availability of these courses is indicative only and may be subject to change.*

## **Entry requirements**

### **Entry requirements WA**

# **Entry requirements NSW**

## **Learning outcomes**

**Upon successful completion of the Bachelor of Computer Science graduates will be able to:**

1. Understand advanced computer science concepts and techniques and their application to and implications for a global society.
2. Critically evaluate existing technologies and techniques and apply appropriate problem-solving strategies to design and implement modern solutions.
3. Analyse and design software solutions to meet specific requirements using appropriate software design and development principles and techniques.
4. Evaluate and implement secure software systems with a focus in artificial intelligence and data science, considering ethical, social, legal, and professional issues.
5. Assess pressing research problems in the discipline area of computer science and effectively communicate the results including clear articulation of the research question, methodology, findings, and conclusions.
6. Demonstrate strong project management skills and the ability to work both independently and as part of a team to plan, execute, and evaluate a substantial software development project.

## **Career opportunities**

The Bachelor of Computer Science can lead to a career in application development, computational science, software engineering, data analytics, cyber security, artificial intelligence research, or technology entrepreneurship.

## **Real-world experience**

There are opportunities for students to address real-world problems or complete projects in the workplace (WIL) in the courses Industry-linked Project A, Industry-linked Project B, and Team Project.

## **Fees and costs**

This Program has the following loan scheme(s) available for eligible students:

### **Commonwealth Supported Place (CSP)**

A Commonwealth Supported Place (CSP) is a place at a university where the Australian Government pays part of your fees. This part is a subsidy, not a loan, and you don't have to pay it back. However, this subsidy does not cover the entire cost of your study. Students must pay the rest, which is called the 'student contribution amount'.

In a Commonwealth Supported Place, your fees are subsidised by the Australian Government. Your fees will be split into two portions:

The Commonwealth contribution, which is the portion paid by the Australian Government.

The student contribution, which is the portion you pay. You may choose to pay upfront or defer your student contribution with a HECS-HELP Loan. The HECS-HELP loan scheme (<https://www.studyassist.gov.au/preview-link/node/106/5de65e70-6656-4297-a79d-19fd4a6deadd>) assists eligible students with the payment of all, or part, of their tuition fees, not including additional study costs such

as accommodation or textbooks. Your HECS-HELP debt will be indexed each year in line with the Consumer Price Index.

Eligible students will be offered a CSP – you do not need to apply.

For indicative fees and information on how to pay, including Government loan schemes and our online calculator, visit our [Fees, costs and scholarships page](https://www.notredame.edu.au/study/fees-costs-and-scholarships) (<https://www.notredame.edu.au/study/fees-costs-and-scholarships>).

## More information

### Considering your uni options?

Talk to one of our career advisors for a [personalised advice session](https://calendly.com/d/dmr-5gg-c2h) (<https://calendly.com/d/dmr-5gg-c2h>). Our advisors provide support while choosing a program of study and completing our application process. **[Book my session. \(https://calendly.com/d/dmr-5gg-c2h\)](https://calendly.com/d/dmr-5gg-c2h)**

For more information, please call our Prospective Students Office on +61 8 9433 0533 or email [future@nd.edu.au](mailto:future@nd.edu.au) (<mailto:future@nd.edu.au>).

All international enquiries should contact the International Students Office on [international@nd.edu.au](mailto:international@nd.edu.au) (<mailto:international@nd.edu.au>).





## Student stories

### Josiah

Arts and science  
student

**"Make the most of the small class size, and get to know your classmates, but also the lecturers, because they are there to help you succeed, and it shows."**

Q

### Jack

Arts and science  
student

**"One of the best aspects of studying at Notre Dame is the academic support I have received from lecturers and tutors."**

**Saakshi**

Business student

**"The MBA at Notre Dame University has the perfect combination of subjects to equip students with knowledge that enriches and enhances the capabilities of a good manager."**

**Holly**

Bachelor of  
Communications &  
Media graduate

**“The Core Curriculum made me challenge the way I think and gain new perspectives on familiar topics which has helped me stand out with employers.”**

Q



**APPLY DIRECT** ↗

## **Need help? Ask Notre Dame**

(08) 9433 0533 - WA

(02) 8204 4404 - NSW

**Duration:** 3 years full-time or equivalent part-time

**Duration type:** Full time; Part time

**Campus:** Fremantle; Sydney

**Study mode:** On campus; Multimode

**Commencement:** Semester 1; Semester 2

**Program code:** 3585

**Fee:** Commonwealth Supported Place (CSP)

Delivery on the Fremantle Campus has been approved from Semester 1 2025.