FDU Vancouver

Master of Science in Applied Computer Science

Advance your career in the dynamic field of computer science with the **Master of Science in Applied Computer Science (MSACS)** at FDU Vancouver. This program is tailored for professionals aiming to deepen their expertise in areas such as software engineering, database administration, and systems analysis. Located in Vancouver, the MSACS program offers hands-on learning and industry-relevant specializations, making it an ideal choice for professionals seeking to advance in data analytics, programming, AI and the tech industry.

CAREER OUTCOMES

The program's comprehensive curriculum and practical experiences prepare students to meet the demands of the rapidly evolving technology sector. Graduates of the MSACS program are equipped to pursue a variety of roles in the tech industry, including:

- Software Engineer/Developer
- Data Scientist
- Systems Analyst
- Database Administrator
- Network and Cybersecurity Specialist
- Project Manager
- IT Consultant

Find out more about the **Master of Science in Applied Computer Science** at

fdu.edu/vancouver-msacs

PROGRAM OVERVIEW

TOTAL CREDITS

- 30 credits

PROGRAM DURATION

- 16 – 24 months (average full-time completion)

DELIVERY MODE

- In-person (Vancouver)

EXPERIENTIAL LEARNING

- Internship opportunities available

POST-GRADUATION WORK PERMIT

- Eligible

PROGRAM INTAKES

FALL September | **WINTER** January | **SUMMER** May

ADMISSION REQUIREMENTS

- Graduated from an accredited 4-year bachelor's degree program or equivalent.
- Maintained a cumulative grade point average of at least 2.75 ("B-") or equivalent in their undergraduate studies.
  - Applicants with lower GPA may be considered based on related work experience.
- Demonstrated proficiency, both written and verbal of the English Language.

PROGRAM HIGHLIGHTS

- **Preparing students** to be competent computer professionals and responsible global citizens.
- Students have the **option to complete a thesis** to earn a total of six credits.
- **Expert Faculty & Small Class Sizes** – Learn from industry professionals with personalized support and learning.
- Students can choose four courses from either of the following **three specializations** (total 12 credits):
  - Database Administration
  - Advanced Computer Programming
  - Other Electives Specialization

DEGREE PLAN

RESEARCH FOUNDATION

All MSACS students are required to take a non-academic research course in their first semester.

- EPS 5289 – Academic Writing Skills-Masters

FOUNDATION COURSES

Students without prior education equivalent to the following courses must complete these prerequisites:

- CSCI 5505 – Introduction to Computer Programming
- CSCI 5506 – Object Oriented Programming
- CSCI 5557 – Data Structures and Algorithms
- CSCI 5565 – Assembly Language

COMPUTER SCIENCE CORE COURSES

- CSCI 6603 – Computer Architecture *or*
  CSCI 6623 – Database Systems
- CSCI 6620 – Software Engineering
- CSCI 6650 – Advanced Topics in Operating Systems
- CSCI 6806 – Computer Science Graduate Capstone Project
- CSCI 6850 – Analysis and Design of Algorithms
- CSCI 7645 – Systems Programming

SPECIALIZATION

Choose either the first 4 courses or any 3 from the first 4 plus the internship (12 credits)

Advanced Computer Programming Specialization

- CSCI 6617 – Computer Game Programming
- CSCI 6809 – Advanced Applications Development
- CSCI 6844 – Programming for the Internet
- CSCI 7873 – Shell Programming
- CSCI 8891 – Internship/Work Experience

Database Administration Specialization

- CSCI 6882 – Data Warehouse and Data Mining
- CSCI 7741 – Disaster Recovery
- CSCI 7781 – Advanced Database Systems
- CSCI 7783 – Information Security
- CSCI 8891 – Internship/Work Experience

Other Electives Specialization (12 credits)

Choose any 4 courses from the list below:

- CSCI 6751 – Artificial Intelligence
- CSCI 6761 – Automata Theory
- CSCI 6830 – Special Topics in Computer Science
- CSCI 6886 – Big Data Analytics
- CSCI 7785 – Distributed Database Systems
- CSCI 7850 – User Interface Evaluation and Design
- CSCI 8891 – Internship/Work Experience
- CSCI 6803/CSCI 6804 – Research and Thesis I/II
- CSCI 6805 – Graduate Research (Nonthesis)
- CSCI 6811 – Advanced Special Projects

FDU Vancouver

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