Trades and Applied Technology Programs

Information Technology and Applied Systems – Web and Mobile Development Diploma

Location Offered:
Nanaimo
Credential:
Diploma
Program Length:
2 Years

The Program

The digital world continues to evolve at an accelerated rate, the result of this is a strong demand for highly skilled web and mobile developers who help design, build and secure applications for a multitude of industries.

The ITAS Web and Mobile Development Diploma program prepares students for careers in the design, coding and implementation of web and mobile software applications. The program will teach students to systematically analyze business, organization or societal needs, and then design, implement and test software and relevant information technologies to address these needs. The course includes an entrepreneurial component, and students will be able to develop customized software solutions that are tailored to a specific domain problem.

The program combines rigorous theoretical and technical education with hands-on, project-based learning. Using the most up-to-date curriculum, the program will develop student's programming skills, as well as teamwork, communication, and project management skills to satisfy industry demands for well-rounded, highly employable technology graduates.

The program consists of two 4-month terms per year, plus a 4-week practicum work experience session or 12-14 week co-op placement at the end of the first academic year.

The first year of the program provides students with a solid foundation in general programming skills and introduces them to the basics of web and mobile application design (using Android). Students are introduced to Project Management and Agile development methodologies, various client and server operating systems and fundamentals of relational database design and implementation.

In the second year of the program, students hone their programming skills by developing full-stack database-driven web applications using such technologies as HTML/CSS, JavaScript/JSON, Node.js, PHP as well as NoSQL databases. Students learn about cross-platform mobile development, user interface design (UI/UX), platforms and technologies to deploy, hosts and secure applications (DevOps), relevant Cybersecurity topics and the use of cloud computing technologies.

Second year graduates will receive a diploma in Information Technology and Applied Systems - Web and Mobile Development.

Program Outline

Year 1	Credits
ENGL 115 - University Writing and Research	3
ITAS 164 - (Information Technology Project Management)	4
ITAS 167 - (Applied Operating Systems)	4
ITAS 185 - (Introduction to Programming Concepts)	4
ITAS 186 - (Introduction to Server-Side Programming)	4
ITAS 188 - (Mobile Development I)	4
ITAS 191 - (Introduction to Web Design)	4
ITAS 192 - (Introduction to Client-Side Programming)	4
ITAS 195T* - (Practicum) *or,* ITAS 118 - (Co-op Work Placement Preparation) *and,* ITAS 196 - (Co-op Work Placement)	4-9
Total Credits	**35-40**

Intersession course.

Note: Students choose either the co-op (ITAS 118 and ITAS 196) or practicum (ITAS 195T) option.

Year 2	Credits
ITAS 255 - (Web Development I)	4
ITAS 256 - (Web Development II)	4
ITAS 264 - (Business Analysis and Systems Design)	4
ITAS 268 - (Content Management Systems)	4
ITAS 274 - (Mobile Development II)	4
ITAS 276 - (DevOPs - Web Servers and Advanced Linux for Web Developers)	4
ITAS 282 - (Final Project)	4
ITAS 288 - (Database Administration and Design)	4
Total Credits	**32**

All program courses must be successfully completed before certificates will be issued.

Completion Requirements

Students must pass all courses and obtain a 2.33 ("C+") overall GPA in order to receive an ITAS credential.

Admission Requirements

- General admission requirements apply.
- Foundations of Mathematics 11.
- Letter of application describing reasons for wanting to take the program (500-1,000 words). Details of the application letter will be provided by the Registrar through the application process.
- Interview.

Recommendations for Admission

- One of Pre-calculus 12 or Foundations of Mathematics 12.
- Two years' previous experience with computers, including experience installing and maintaining operating systems, and using office productivity software.
- Computer Information Systems 11 & 12, Web Development 10.

Notes on Admission

- This program is open to full-time students only.
- Interview will only be granted after all other admission requirements are met.
- Students must supply their own computer system—see Program Fees.

Program Regulations

Students must obtain a 2.33 (C+) GPA in each academic term in order to be eligible to continue in the program. Students who fail any courses may continue in the program upon review by the department chair and consultation with the faculty.

Start Date and Application Deadline

The program starts in September of each year and applications for admission are accepted on the first business day of October to March 31. Applications received after March 31 are considered late and will be processed as space permits.

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