

Mathematics and Statistics

BSC AND BA DEGREES, MAJORS, AND MINORS

Why study math or statistics?

The ideas and techniques of Mathematics and Statistics are powerful tools in any area of modern science and technology: mathematics truly is “the language of the sciences.” But even as a subject in its own right, it is without compare for the simultaneous subtlety, depth and clarity of its ideas.

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Most people realize that mathematics is a useful subject, but tend to think that it was all discovered a long time ago. But the mathematics behind internet security, CAT scans, MP3 players and modern computation has all been discovered quite recently; it continues to grow at a tremendous rate, and there are very many things still unknown and applications left unexplored.

Whether you study mathematics or statistics on their own, or in combination with a degree in another subject, the skills and insight you acquire can make you a valuable person in the workplace; many employers do not have the in-house mathematical or statistical expertise to support and develop their enterprise.



“The faculty at UFV is amazing. The class sizes are small, so the environment is very open and interactive.”

— RUSSELL CAMPBELL,
BSc Math/Stats, '07.

Mathematics and Statistics



“I always enjoyed mathematics, and at UFV it was easy to transform that enjoyment into my life’s work. The small class sizes enabled me to have more one-on-one interaction with my instructors than many of my friends at other universities. It was this personalized interaction that influenced me to pursue graduate studies in statistics.”

— MICHAEL REGIER,
BSc Mathematics grad UFV 2003, PhD student UBC, PhD Research Student
with the BCCA Cancer Rehabilitation Sociobehavioural Research Centre.

WHY TAKE MATH AND STATISTICS AT UFV?

The members of UFV’s Mathematics and Statistics department are committed to working closely with their students in order to allow them to reach their potential, and further, to inspire and excite them, just as we are inspired and excited by our subject. Our classes are small, our focus is on teaching excellence, and there are opportunities for student research alongside faculty. We use our expertise to energize the classroom.

WHAT OPTIONS ARE AVAILABLE TO ME?

Depending on where you want to go, there are plenty of options. Within the Bachelor of Science (BSc) degree program, you can do a math major, a math minor, or a math minor with a stats option. Within the Bachelor of Arts (BA) degree program, you can do a math major, math extended minor, math extended minor with a stats option, a math minor, or a math minor with a stats option. Within the Bachelor of Computer Information Systems (BCIS), you can do a math minor. Other options, such as math concentrations in business, are being developed.

WHAT SORT OF CAREER CAN I EXPECT?

That depends on you. One thing is certain: math teachers are so much in demand that almost every qualified math applicant to a teacher education program is accepted. If you don’t plan on teaching, you can put your expertise and knowledge to use in a vast array of employment opportunities in many fields including computer science, chemistry, economics, medicine, engineering, actuarial science, accounting, or business.

All complicated systems, especially networks, need plans that begin with people figuring out how the pieces will be put together to make the system work. Statisticians in Canada work for the government (e.g. Statistics Canada), large medical research organizations, in market research, insurance, banks, and other commercial environments. Private statistical consultants may find themselves working in any field. The demand for statisticians is high, which is reflected in the salaries offered by competing companies.

Math grads are sought after because they have demonstrated their abilities in problem solving and abstract thinking. Whichever career you choose, math is used to both communicate and reason. It’s a valued and well-respected field.

I’M INTERESTED. WHERE CAN I GET MORE INFORMATION?

The best place to start is our math department’s webpage at www.ufv.ca/math where you’ll find details about specific courses, programs, and career options. You can also check out our online calendar at www.ufv.ca/calendar and read the Math and Stats section carefully.

From our website you can go to the download centre and download the application form. Fill it out and submit it, along with the required documents and the \$45 application fee, to the Admissions and Records office at any UFV campus or centre or through the internet at www.pas.bc.ca.

CAN I GET ACADEMIC CREDIT FOR THE SKILLS AND KNOWLEDGE THAT I HAVE GAINED IN MY LIFE SO FAR?

Yes. UFV offers Prior Learning Assessment and Recognition (PLAR), a flexible assessment process that evaluates your experiential learning (what you already know and can do) for post-secondary credit. Experiential learning includes independent study, volunteer activities, non-credit courses, workplace learning, and military service. To find out more, visit www.ufv.ca/plar or contact Susan Brown, Assessment Services Coordinator, PLAR at 604.851.6342 or susan.brown@ufv.ca.

WHAT ARE THE ENTRANCE REQUIREMENTS?

Entrance requirements for the BA are as follows:

Option 1: (if you have high school graduation only)

- B.C. Secondary school graduation or equivalent and,
- Minimum of B in English 12 and two other provincially examined Grade 12 subjects.

Option 2: University Entrance (if you have attended some post-secondary school)

Completion of a minimum of 30 Arts/Science university-level credits with a cumulative GPA of 2.33 on all credits attempted.

or

Completion of a minimum of nine Arts/Science university-level credits with a GPA of 3.0 or better on all university-level credits attempted.

or

A B.C. Associate of Arts degree or UFV diploma in Liberal Arts, Visual Arts, or Theatre. Students must achieve an average overall grade of C (cumulative GPA of 2.0) calculated on all courses that could apply towards the diploma or Associate degree.

For the purpose of Admissions, credits earned in the following disciplines will be considered:

- anthropology, art history, communications (CMNS 155 and above), criminology/criminal justice (excluding CRIM 201, 202, and 203), economics, English, film, geography, history, international studies, Latin American studies, mathematics/statistics, media and communication studies, modern languages, philosophy, political science, psychology, religious studies, sociology, SCMS, theatre, and visual arts.

The remaining credit can be from:

- Any UFV course listed as a requirement for a current degree-granting program (with the exception of the BA in Child and Youth Care, the BBA in Aviation, the BSc in Nursing; and the BSW), or
- Any other course or practicum that has been reviewed by the Arts Curriculum committee.

To date, some courses from aviation, communications, library technology, and social services and social work have been approved. For a list of acceptable courses and practica, please contact the Bachelor of Arts advisor.

Entrance requirements for the BSc are as follows:

Option 1: (if you have high school graduation only)

- B.C. secondary school graduation or equivalent.
- Two provincially examined Grade 12 sciences with a minimum grade of C+. The subjects classified as Grade 12 sciences are Biology 12, Chemistry 12, and Physics 12.
- Completion of the prerequisite for Math 111 (Principles of Math 12 provincially examined, with a grade of B or better or equivalent). See Math 111 course listing for other prerequisite options.
- Attendance at a Bachelor of Science information session or personal interview with the science advisor.

Option 2: University Entrance: (if you have attended some post secondary school)

- 28 university-level credits with:
 - » A minimum GPA of 2.0 in all university-level courses attempted, and
 - » A minimum GPA of 2.33 in four of the following courses or their equivalents:

- BIO 111
- BIO 112
- CHEM 113
- CHEM 114
- COMP 150
- COMP 155
- MATH 111
- MATH 112
- PHYS 111
- PHYS 112
- Any course numbered 200 or above in biology, chemistry, mathematics, or physics, or any course numbered 175 or higher in computing science.

WHEN SHOULD I APPLY?

Applications for the fall semester must be received by January 31 of that year. Applications received after this deadline will be considered if space is still available in the program.

HOW MUCH WILL IT COST?

It's best to consult the UFV calendar for tuition fees, keeping in mind that new fees are usually set in May.

Remember that text books and other fees are not included in the tuition costs.

You should also visit the UFV Financial Aid and Awards office, which facilitates the disbursement each year of about \$12 million in federal and provincial student loans, grants, bursaries, scholarships, and awards to UFV students. A helpful budget planning worksheet is available online at www.ufv.ca/fineaid/budget

CAN I SPEAK WITH SOMEONE ABOUT MY OPTIONS?

We want to hear from you! If you're unsure of your direction, contact Student Services at 1-888-504-7441 to connect with an educational advisor, or arrange for career counselling.

You can also contact the Math and Stats department at 604-851-6304 or visit www.ufv.ca/math, or you can contact a program advisor at the Science Advice Centre at 604-557-4079 or the Arts Advice Centre at 604-557-4028.

WHAT SORT OF SUPPORT WILL I GET?

UFV is committed to help students succeed in their study of math. The Math Centre at the Abbotsford campus, located in the Learning Centre (room G161), is open all day throughout the week. Many students spend hours in the Math Centre working with their friends on math homework.

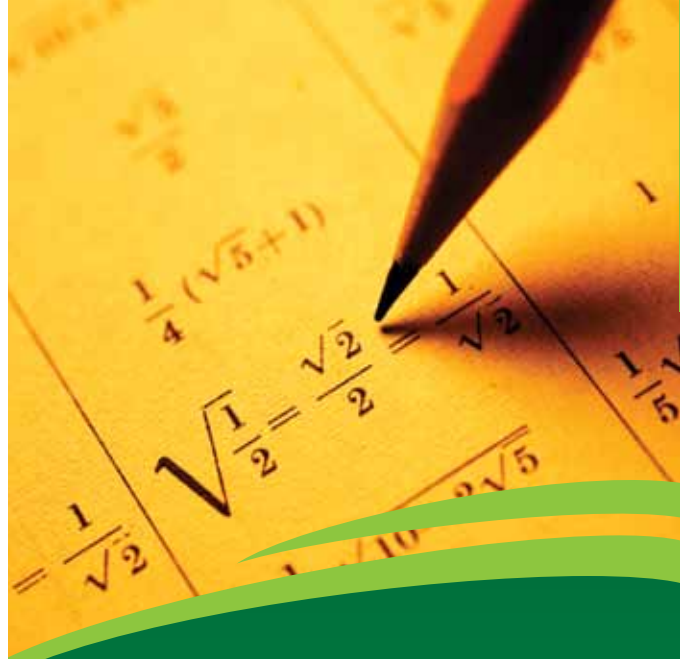
The Abbotsford Math Centre can seat about 30 students. It is often a busy place, with students writing on the boards, using the computers, and discussing math and stats. Students are encouraged to come to the centre for help with math questions, and can check the schedule posted on the door, which indicates which instructors are available and when. Students may also sign out math books to supplement their course work.

The Chilliwack campus has a combined Math/Writing Centre.

You can also join the UFV math club, which organizes a number of activities throughout the year, including fun math problems, presentations, and meetings.



The information contained in this document is subject to change. Please refer to www.ufv.ca/math for up-to-date information. UFV reserves the right to cancel courses and programs.



About UFV

Nestled in the beautiful Fraser Valley just east of Vancouver, in B.C., UFV is a fully accredited, public university that enrolls more than 11,000 students each year. UFV has campuses in Abbotsford, Chilliwack, and Mission and regional centres in Hope and Agassiz, and a growing presence in Chandigarh, India.

UFV is committed to exceptional post-secondary instruction and a nurturing learning environment. We are large enough to offer variety, yet small enough to offer the personal attention that our students need to thrive. Our small class sizes and focus on teaching allow our students to get to know their instructors and learn in a hands-on setting.

We offer more than 80 programs, including 13 bachelor's degrees, a master's degree, and more than a dozen trades and technology programs. We believe that anyone who wants to go to university should be given the chance, so our admission policies are flexible, and we provide university prep courses and high school completion options. There are many options for learning: full-time, in class, online, as part of a structured program or one tailored specifically to your interests.

Many of our programs "ladder" into one another, allowing students to keep their options open. Our international programming makes for a culturally diverse student body and great opportunities to study abroad, while our continuing studies offerings make learning a lifelong experience.

UFV is recognized nationally for student success, an excellent learning environment, creative integration of programming, and our work with our local communities.

Get to know us better at www.ufv.ca.

