UNIVERSITY OF THE FRASER VALLEY

ORIGINAL COURSE IMPLEMENTATION DATE: September 1992
REVISED COURSE IMPLEMENTATION DATE: January 2026
COURSE TO BE REVIEWED (six years after UEC approval)**:** August 2031
Course outline form version: 29/08/2024

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: CRIM 320	**Number of Credits:** 3 Course credit policy (105)
Course Full Title: Quantitative Data Analysis **Course Short Title:** Quantitative Data Analysis	
Faculty: Faculty of Social Sciences	**Department/School:** Criminology and Criminal Justice

Calendar Description:

Examines quantitative research methods and data analyses commonly used in criminal justice. The concepts underlying statistical tests will be discussed and statistical programs will be used to analyze and interpret data.

Prerequisites (or NONE):	45 university-level credits including CRIM 220, 6 additional credits of 100- or 200-level CRIM, and one of (STAT 104, STAT 106, or PSYC 110). Note: As of September 2026, prerequisites will change to 45 university-level credits including CRIM 220, 6 additional credits of 200-level CRIM, and one of (STAT 104, STAT 106, or PSYC 110).
Corequisites (if applicable, or NONE):	NONE
Pre/corequisites (if applicable, or NONE):	NONE

Antirequisite Courses *(Cannot be taken for additional credit.)*

Former course code/number:

Cross-listed with:

Equivalent course(s):

(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)

Typical Structure of Instructional Hours

Lecture/seminar	30
Supervised laboratory hours (computer lab)	15
Total hours	**45**

Scheduled Laboratory Hours

Labs to be scheduled independent of lecture hours: **No**

Course Details

Special Topics course: **No**
(If yes, the course will be offered under different letter designations representing different topics.)

Directed Study course: **No**
(See policy 207 for more information.)

Grading System: **Letter grades**

Delivery Mode: **May be offered in multiple delivery modes**

Expected frequency: **Twice per year**

Maximum enrolment (for information only)**: 30**

Prior Learning Assessment and Recognition (PLAR)

PLAR is available for this course.

Transfer Credit *(See bctransferguide.ca.)*

Transfer credit already exists: **Yes**

Submit outline for (re)articulation: **Yes**
(If yes, fill in transfer credit form.)

Department approval	**Date of meeting:**	March 13, 2025
Faculty Council approval	**Date of meeting:**	May 9, 2025
Undergraduate Education Committee (UEC) approval	**Date of meeting:**	August 28, 2025

Learning Outcomes *(These should contribute to students' ability to meet program outcomes and thus Institutional Learning Outcomes.)*

Upon successful completion of this course, students will be able to:

1. Apply the logic of scientific enquiry to statistical testing of hypotheses.
2. Empirically measure theoretical concepts through the use of multiple indicators and creation of composites/indexes.
3. Assess statistical analyses and findings of criminological or criminal justice issues.
4. Evaluate the strengths and weaknesses of quantitative statistical techniques.
5. Use SPSS or other statistical programs to work with data.
6. Statistically analyze data to answer quantitative research hypotheses.
7. Articulate the strengths and limitations of quantitative approaches in addressing research involving racialized and marginalized groups.

Recommended Evaluation Methods and Weighting *(Evaluation should align to learning outcomes.)*

Quizzes/tests/midterm:	25%	Final exam:	30%	Assignments:	45%
	%		%		%

Details:

Assignments may include analyzing survey data, reporting and interpreting statistical tests, infographics, and brief reports.

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Instructional Methods *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Lectures and computer labs

Texts and Resource Materials *(Include online resources and Indigenous knowledge sources. Open Educational Resources (OER) should be included whenever possible. If more space is required, use the Supplemental Texts and Resource Materials form.)*

	Type	Author or description	Title and publication/access details	Year
1.	Textbook	Babbie, E.R., Wagner, W.E., & Zaino, J.S.	Adventures in Social Research: Data Analysis Using IBM SPSS Statistics (Sage Publications, Inc.)	2022
2.	Textbook	Noack, A.M.	Social Statistics in Action: A Canadian Introduction (Oxford University Press)	2018
3.	Online resource	BC Office of the Human Rights Commissioner	Disaggregated Demographic Data Collection in British Columbia: The Grandmother Perspective	2020
4.				
5.				

Required Additional Supplies and Materials *(Software, hardware, tools, specialized clothing, etc.)*

Statistical software subscription (e.g., SPSS), which is typically provided on UFV computers

Course Content and Topics

- Overview of quantitative research
- Introduction to SPSS software
- Creating a database
- Descriptive statistics
- Normal distribution and standard scores
- Probability theory and hypothesis testing
- Recoding data
- Chi-square
- t-Test
- ANOVA
- Correlation
- Multiple Regression
- Ethical issues in the use of quantitative data
- Impact of quantitative statistics in analyzing research involving racialized and marginalized groups