

GRANDE PRAIRIE REGIONAL COLLEGE
PY 2110: STATISTICS FOR THE SOCIAL SCIENCES
Sept 4 - Dec 4, 2009
LECTURE TIMES: Tuesdays and Thursdays: 8:30 - 9:50 AM
(3-0-0) UT to all Alberta Universities (3)

Instructor: Bruce Galenza, Ph.D.

Telephone: 539-2994

E-mail: bgalenza@gprc.ab.ca

Office: C403

Office Hours: Mondays through Thursdays, 10:00 - 11:30;
Fridays, 8:00 - 10:00; Tuesday & Thursday,
1:00 - 2:30; afternoons and weekends by
appointment.

Required Text: Gravetter, F. & Wallnau, L. (2000).
Statistics for the behavioural sciences. Wadsworth Thomson
Learning.

And a good statistics calculator. A study guide is
available but not required.

PREREQUISITE: PY 1040 and MATH 30.

COURSE DESCRIPTION: This course is designed to introduce
students to descriptive and inferential statistical methods
which are used by behavioural scientists (as well as
scientists in other disciplines) as they analyze and draw
conclusions from research data. Special emphasis will be
placed upon psychological investigation, but other
disciplines will also be used.

GOALS: Statistics are the tools of scientific thought and
critical thinking. This course requires students to
develop cognitively and behaviourally in the following
areas:

1. Knowledge structures; organized, related and
interrelated information of statistical principles: the what
of critical thinking.
2. Procedural knowledge; procedures of statistical
analysis and the communication of ideas: the how of
critical thinking.
3. Metacognitive judgement; critical and analytic judgment
concerning the proper use of the procedures; the where and
when of critical thinking.
4. Attitudinal considerations; understanding the value of
this work and its application: the why of critical
thinking.

COURSE OBJECTIVES: As a result of taking this course, students will demonstrate their understanding and their ability to use:

1. Graphic representations such as frequency distributions, tables, and charts to summarize and describe collected data.
2. Measures of central tendency and variability.
3. Standardized or z-score distributions.
4. Correlational and regression techniques.
5. Probability theory and distributions.
6. Sampling theory.
7. Hypothesis testing principles.
8. T-tests
9. ANOVAs
10. Factorial designs and interactions

ASSESSMENT: Research psychology recognizes the authority of, and bases its judgements on, carefully collected data, as opposed to opinion, tradition, or authority. Psychology always makes its decisions by measuring and comparing, and so shall I. In keeping with this philosophy: rather than me imposing my authority on you and telling you what you must know and then arbitrarily assigning cut-off points for grades through non-standardized tests, you as a class will inform me what you are capable of, through my careful measurement of your performance. Students will be assessed according to their relative position within the class. This method will be explained fully in the first class period; a handout is available if requested.

Assessment will be based on four equally weighted examinations. Following the final grade assignments, students will be subjectively assessed for bonus points on the basis of their involvement in, and contributions to, the class and in-class work, as well as attendance.

Alpha Grade	4-point Equivalence	Descriptor	Alpha Grade	4-point Equivalence	Descriptor
A+	4.0	Excellent	C+	2.3	
Satisfactory					
A	4.0		C	2.0	
A-	3.7	First Class	C-	1.7	
B+	3.3	standing	D+	1.3	Poor
B	3.0	Good	D	1.0	Minimal
					pass
B-	2.7		F	0.0	Fail