(3-1-0; —) **Introduction to Data Analysis and Inference** STAT-264*

This is a web based course supplemented by lecture/tutorials. Students learn to use the statistical package Data Desk to analyse data.

Text Materials: *ActivStats, an interactive CD- ROM*, Version 3.0
by P. Velerman (Addison-Wesley)
Introduction to the Practice of Statistics, 4th Edition
by Moore and McCabe (Freeman)
Incomplete Lecture Notes

Prerequisite: Some OAC Mathematics or equivalent.

Exclusions: Any introductory statistics course COMM-162*, ECON-250*, PSYC-200 or 202*, STAT-162, 163, 261*, 263*,266*,267*, 367*.

Instructor: J. M. Geramita

Evaluation:		
	Final examination	50%
	One test	10%
	Eleven homework assignments	11%
	Projects	29%

Outline:

Exploratory Data Analysis: Boxplots, histograms, Measures of centre and spread, Normal distributions, Comparison of Groups, scatterplots, correlation, Regression
Generating Data: Sample Surveys, Designed Experiments and a small project designing a fictitious experimental Protocol
Experiencing Random Behaviour: Intuitive Probability, Conditional Probability, Random Variables and Sampling Distributions
Statistical Inference: Confidence Intervals for a Mean, Testing Hypotheses for a Mean, Comparing Two Means, Inferences for Proportions, Inference for two-Way Tables and Regression. This portion includes designing and complementing a study based on data collected by Environment Canada.