## Queen's University School of Kinesiology and Health Studies



Course Name: KNPE 251/3.0	<b>Course Instructor:</b> Dr. William Nelson	Contact Hours: Lectures: 1 x 1 hrs / 12 weeks Tutorials: 1 x 1.5 hr/ 12 weeks Prerequisite: Level 2 or above in a HLTH, PHED or KINE plan.	
		Exclusion: No more than 3.0 units from BIOL 243/3.0; CHEE 209/3.0; COMM 162/3.0; ECON 250/3.0; GPHY 247/3.0; KNPE 251/3.0; NURS 323/3.0; POLS 385/3.0; PSYC 202/3.0; SOCY 211/3.0; STAM 200/3.0; STAT 263/3.0; STAT 267/3.0; STAT 367/3.0 COMM 162/3.0	); );
Course Description: The purpose of this course is to improve your numeracy and critical thinking skills to help you make better decisions in both your personal life and your professional life. To achieve this, you will learn about probability, how to make sense of raw data, how best to describe data to others, and how to solve problems and test predictions using statistics. This course follows a 'blended model', meaning that course material is provided using weekly online video lessons, a face-to-face lecture each week that goes into greater depth using case studies, and a face-to-face weekly tutorial where		Required Course Material: There is no required textbook. All course material will be posted on OnQ. Top Hat software required: https://tophat.com Calculator Casio FX 991	
<ul> <li>using case studies, and a face-to-face weekly tutorial where you learn to work with and analyze data.</li> <li>Intended Student Learning Outcomes:</li> <li>After completing this course, students should have the knowledge and skills to do the following:</li> <li>Identify the features of a data set to determine how best to summarize and display it.</li> <li>Choose the appropriate statistical test and provide the rationale for selection.</li> <li>Compute basic parametric and nonparametric statistical tests to test hypotheses.</li> <li>Interpret the results of statistical tests and data software output to be able to draw valid conclusions.</li> <li>Apply knowledge of statistics and research design (e.g., sampling) to critically evaluate research findings.</li> </ul>		Course Evaluation:In-Lecture Participation4%Assessment3%Software Skills - Quizzes8%Weekly Quizzes – on-line10%Tutorial Activities15%Inquiry-based Project10%Term Tests (2 x 10%)20%Final Exam30%	

## **Course Outline**

This 12-week course has four units each with several	
modules. The units cover:	
Exploratory data analysis	
Producing data	
Probability	
Inference	
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