

# VANIER

C É G E P / C O L L E G E

Faculty of Science & Technology

Department of Mathematics

<b>Course Title:</b>	Biometry	<b>Teacher:</b>	I.T. Ivanov
<b>Course Number:</b>	201-214-VA	<b>Office/Phone:</b>	D264, ext. 7737
<b>Section:</b>	00001	<b>Webpage:</b>	gauss.vaniercollege.qc.ca/~iti
<b>Semester:</b>	Winter 2023	<b>Email:</b>	ivanovi@vaniercollege.qc.ca

*Please note that the modality and detailed calendar of this course may need to be modified as a result of changing government health regulations. Should changes become necessary, this course outline will be modified accordingly.*

**Course Objectives:** To introduce the student to statistical techniques and applications in biology and ecology.

**Course Description:** This is an elementary statistics course with emphasis placed on ecological and biological applications. The student will be introduced to the basics of descriptive and inferential statistics. Topics covered include experimental design organizing data, measures of central tendency and variation, Binomial, Poisson and Normal distributions, testing hypotheses, linear regression and analysis of variance. The usage of techniques and tools learned in this course will allow the students to collect, analyze and present ecological data in a rigorous quantitative manner.

**Ponderation:** Theory 2 hours, Lab 2 hours, Homework 2 hours.

**Prerequisites:** 101-114-VA

**Teaching Methods:** A lecture/workshop approach to classroom work accompanied by frequent homework assignments will prepare the student for three longer examinations. One hour per week will be spent in a computer lab working with Excel software.

**Textbook:** Recommended for additional materials and exercises: Biostatistical Analysis, Jerrold H. Zar, 5th edition, Publisher: Pearson, (2009)

**Additional Expenses:** Scientific calculator

**Office Hours:** Noon - 2 pm Tuesdays

**Competencies to be achieved:** For the course objectives and the expected learning outcomes please consult the course content document.

**LIA (Learning Integration Assessment):** A student report that requires an estimation of population parameters with confidence intervals as well as hypothesis testing of prior claims on the population characteristics of plant and animal species. Regression models will be used to establish relationships between important population variables. Conclusions in their ecological and biological contexts will be drawn for all statistical analyses performed.

**Important Dates:** Thursday Mar 9 (Test 1), Thursday May 11 (Test 2).

**Evaluation Procedures and Breakdown of Marks:**

Homework, in-class work, Excel labs	25%
Test 1	20%
Test 2	35%
Student project	20%

**Academic Resources:** The Tutoring & Academic Success Centre (TASC) provides free peer tutoring every work-day in E 300. See <http://www.vaniercollege.qc.ca/tasc> for further details.

### **Course Policies:**

1. **Missed tests and in class assessments** will not be re-administered unless the student provides valid proof, such as a medical note, or some other compelling reason. Failure to do so will result in a grade of zero.
2. Attendance is highly recommended. It is the student's duty to remain informed about what takes place in class he/she misses. Absence from class does not excuse students from their responsibilities.
3. Students are expected to check the course Webpage on a regular basis. Course material, announcements, and important dates will be posted there.
4. Student work should be submitted in Adobe pdf format. A document which is corrupted and cannot be opened will receive a grade of zero.
5. Unless explicitly allowed by the instructor, all electronic devices including but not restricted to smart phones, smart watches, Fit Bits - all models, cameras, laser devices, MP3 players, recording and/or playback devices in any form, ear buds, any Bluetooth device are prohibited during in class examinations. A simple possession of such devices is considered cheating and will be treated as such.

**General Academic Policies:** It is the student's responsibility to be familiar with and adhere to the Vanier College Academic Policies. These policies can be found online on the Vanier College website, under Policies. Your attention is drawn in particular to the following policies. A brief summary of each is included.

**Student Academic Complaints (Policy number 7210 - 8)** The Vanier College Student Academic Complaints Policy and procedures puts an emphasis on mediation as the primary means to resolve complaints in the academic area. If you have a problem with a teacher and have been unable to resolve it by talking with him or her, you may wish to enlist the help of the Faculty Mediation Committee. The committee member names and contact information are available in Student Services or through the office of the Faculty Dean.

Department Coordinator: Elena Naidenova [naidenoe@vaniercollege.qc.ca](mailto:naidenoe@vaniercollege.qc.ca)  
Faculty Dean: Haritos Kavallos [kavalloh@vaniercollege.qc.ca](mailto:kavalloh@vaniercollege.qc.ca)

**Cheating and Plagiarism (Policy number 7220 - 31)** Any form of cheating or plagiarism will result in a grade of zero on the test or assignment and a letter from the teacher will be placed in your file. A repeated offence may lead to even more serious consequences. Please consult the Vanier Student Writing Guide, the Vanier College Catalogue, the Student Handbook, and your teacher for more information.

**Student Misconduct in the Classroom (Policy number 7210 - 19)** This policy provides guidelines for handling cases of student misbehaviour in the classroom and other instructional settings. Such cases may include conduct that is abusive to the teacher and/or other students, or disruptive to the teaching/learning process. This policy does not limit the teacher's or the College's right to take immediate action in cases of imminent danger to persons or property.

**Code of Conduct** The Code of Conduct sets forth principles, guidelines and norms of behavior expected from all individuals present at Vanier College, including students, faculty, employees, administrators, members of the Board of Directors, contractors and visitors.

**Student Absences for Religious Holy Days see IPESA, Section 2.2.6)** Students whose religious obligations require them to be absent from the College on a holy day not formally recognized in the College calendar must inform their teachers, in writing, during the first week of classes, of the particular date(s) and times of the religious holy days on which they must be absent by completing and submitting to their teacher the Religious Holy Days Absence form found on the Registrar's Office page on the Vanier College website <http://www.vaniercollege.qc.ca/registrars/request-forms/religious-holy-days>. Absences approved in this manner are considered to be excused absences. Students are responsible for material covered in the classes and labs they miss.

**Student Proficiency in the Language of Instruction (Policy number 7210-33):** The purpose of this policy is to foster student proficiency in English, the formal language of instruction at Vanier College. Emphasis on literacy and communication skills (writing, reading, speaking, and listening) is essential to students' academic and professional success.