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# **Faculty of Science and General Studies**

# **Department of Mathematics**

# **Course Title:** Concepts in Mathematics **Teacher:** Alhan Zahrai

# **Course Number:** 201-114-VA **Office:** N246

# **Section:** 00001 **Phone:** 514-744-7500 ext. 7184

# **Semester:** Fall 2020 **Email:** Please contact me by MIO

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**Course Description**: The purpose of this course is to introduce students to two areas of mathematics, namely

linear algebra and statistics, which are essential to rendering objects in 2D digital imagery and image processing.

**Ponderation:** Theory 3 hours, Homework 3 hours.

**Prerequisites**: Secondary IV, TS option (564426) or Secondary IV, SN option (565426) or Secondary V, CST option (563504).

**Teaching Methods:** Classes will be given online at the regular class schedule (**synchronously**). We will be using Lea’s Zoom platform, which is a video conferencing platform.

Numerous techniques will be used in the classroom in the delivery of the course material. A combination of lectures, class exercises, quizzes, along with homework and Webwork assignments will prepare the students for the quizzes and tests.

**Textbook:**  Notes will be sent periodically through Lea.

**Additional Expenses:** None anticipated

**Office Hours:** I will be available for office hours on Monday 14:00 – 15:00

Wednesday 10:00 – 11:00

Office hours will also be held via Zoom. If these office hours conflict with your schedule, you will have to send me your schedule so that I can schedule a time that would be convenient for both of us.

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

A bilingual math and science vocabulary document is available at <http://www.vaniercollege.qc.ca/msc/mots-de-la-science.php>

**Evaluation Procedures and Breakdown of Marks:**

Webwork Assignments: 20%

Quizzes: 20%

2 Class tests: 60%

**Important Dates:**  Thetentative dates for the class tests are:

Test 1(Online): Given during the Study and Assessment Week (Oct 13-16)

Test 2(In Person): Given during the Final Examination Period (Dec 15-24)

**Academic Calendar:**

For a detailed calendar of activities, please consult the following:

[https://www.vaniercollege.qc.ca/calendars-dates/files/2020-2021-calendar.pdf](https://www.vaniercollege.qc.ca/calendars-dates/files/2020-2021-calendar.pdf%20)

**Course Policies:** There will be no make-up quizzes. A make-up test can be provided in the case of a medical reason (medical note required).

**General Academic Policies:** It is the student's responsibility to be familiar with and adhere to the Vanier College Academic Policies. A summary of the course-level policies that apply in this and all other Vanier courses can be found under “Course-Level Policies” in Important Vanier Links on Omnivox, or by following this link: <http://www.vaniercollege.qc.ca/psi/course-level-policies/>. Complete policies can be found on the Vanier College website, under [Policies](http://www.vaniercollege.qc.ca/bylaws-policies-procedures/category/policies/).

Your attention is drawn in particular to the following policies.

**Cheating and Plagiarism (Policy number 7210-31):** 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.

**Devices:**

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, and any Bluetooth device, are prohibited during in-class examinations. A simple possession of such devices is considered cheating and will be treated as such.