FRANKLIN UNIVERSITY SWITZERLAND

MAT103
College Algebra
Spring 2019

I. COURSE INFORMATION

Instructor: Nadia Bernasconi
Instructor's Email: nbernasconi@fus.edu
Office Hours: Tuesday and Friday 09:45-10:45 MV8
Class location: MV4
Class meeting times: Tuesday and Friday 08:30-09:45

II. COURSE DESCRIPTION

Course Prerequisites: Placement test or MAT 102 with passing grade

The first part of this course reviews the basic concepts of algebra, real numbers, first-degree equations and inequalities, rational expressions, exponents and radicals, polynomials, systems of equations and inequalities. The second part strongly emphasizes graphs and functions. The most important functions for applications are introduced, such as linear, quadratic, exponential, logarithmic, and rational functions.
The main emphasis of the class is to enable the students to formulate problems in a mathematical way, and solve the corresponding equations and inequalities by algebraic manipulation and by graphing.

III. SPECIFIC LEARNING OUTCOMES

Upon completion of this class, students should

- have a clear understanding of the main concepts and methods in College Algebra,
- be able to apply them to mathematical problems, like solving equations or inequalities,
- be able to formulate word problems in mathematical terms and solve the corresponding equations,
- be able to communicate both concepts and methods verbally and formally.

IV. REQUIRED TEXTS AND MATERIALS

Will be announced during the first class meeting.

V. ASSESSMENT OVERVIEW

At the end of the semester, you will receive a score from 0 to 100%, based on the following:

participation:	15%
quizzes:	35%
midterm:	20%
final:	30%

Nonattendance may lower your score as will be described below

VI. ASSESSMENT DETAILS

Tests:
There will be four 30-minute quizzes.
There will be one midterm.
There will be a final exam, which will be cumulative.

No make-up quizzes/exams are given, unless there is documented evidence of a medical (or other serious) problem.

Class participation:
The participation score will reflect your participation during class.

Attendance:
Since this is a progressive class, each chapter building upon the previous one, regular attendance is extremely important other than required. Experience shows that students who do not attend on a regular basis, do poorly. If you are late or leave early you are regarded as non-attendant.
You may loose points counting towards your total grade according to the followings scheme:

- 0 - 4 classes missed: no change.
- for each further class missed: subtract 5% from your score

VII. GRADING POLICIES AND EXPECTATIONS

Final grades will be determined as follows

	A: 93 - 100 %	A-: 90 - 92.9 %
B+: 87 - 89.9 %	B: 83 - 86.9 %	B-: 80 - 82.9 %
C+: 77 - 79.9 %	C: 73 - 76.9 %	C-: 70 - 72.9 %
D+: 67 -69.9 %	D: 63 - 66.9 %	D-: 60 - 62.9 %
F: below 60 %		

VIII. HOW TO DO WELL IN THIS COURSE (POLICIES / REQUIREMENTS)

During classes: attend class, participate, ask questions, or answer them, if you can. Contact me as soon as problems occur. If you miss a class, you are responsible to find out which material was covered and which announcements were made during class.

During exams, the use of cell phones I-phones, … is strictly forbidden. Bring your own calculator. Sharing calculators during exams is not allowed.

IX. ACADEMIC INTEGRITY: STATEMENT ON CHEATING AND PLAGIARISM

A student whose actions are deemed by the University to be out of sympathy with the ideals, objectives or the spirit of good conduct as fostered by the University and Swiss community, may be placed on Disciplinary Probation or become subject to dismissal from the University. Cheating is a dishonest action out of sympathy with the ideals, objectives and spirit of the University. Furthermore, cheating reflects negatively on one's personal integrity and is unjust to those students who have studied.

See the Academic Catalog for full statement (page 215):
https://www.fus.edu/images/pdf/FUS_ACADEMIC_CATALOG_2016_2018_web.pdf

X. TENTATIVE COURSE SCHEDULE

TUESDAY	FRIDAY
22 Jan: Introduction	**25 Jan**: Algebra and real numbers
29 Jan: Exponents	**1 Feb**: Radicals
5 Feb: Polynomials Quiz#1	**8 Feb**: Rational expression
12 Feb: Linear equations and inequalities	**15 Feb**: Complex numbers
19 Feb: Quadratic equations and applications	**22 Feb**: **February Break**
26 Feb: Equation-solving techniques Quiz#2	**1 Mar**: Cartesian coordinate systems
5 Mar: Distance in the plane	**8 Mar:** Midterm
12 Mar: **Academic Travel**	**15 Mar:** **Academic Travel**
19 Mar: **Academic Travel**	**22 Mar:** **Academic Travel**
26 Mar: Equations of a line	**29 Mar**: Functions
2 Apr: Graphing functions	**5 Apr**: Transformation of functions
9 Apr: Quadratic functions Quiz#3	**12 Apr**: Operations on functions
16 Apr: Inverse functions	**19 Apr:** Polynomial functions
23 Apr: Rational functions and inequalities	**26 Apr**: Exponential and logarithmic functions Quiz#4
30 Apr: Exponential and logarithmic equations	**3 May:** Review **Last day of classes**

XI. FINAL EXAM

Friday, May 10th, 08:30-10:30