
MATH 113 SECTION 10 COURSE OUTLINE COLUMBIA COLLEGE

INSTRUCTOR: Dr. Sambandam Ekambaram (Dr. Sam Ekambaram)

LENGTH OF COURSE: One semester (14 weeks)

CONTACT INFORMATION:

sekambaram@columbiacollege.ca

<http://staff.columbiacollege.bc.ca/sekambaram/>

[CAMS student's portal](#)
[\(check DOCUMENTS\)](#)

CLASSROOM HOURS/WEEK: Mondays and Thursdays from 10:00 AM to 11:55 AM in room #450

OFFICE HOURS: Monday, Tuesday and Thursday: 12: 15 to 2:00 PM IN Room #: 546

Important DAYS: Important days of this semester:

September 12, 2016: Last Day to change/add/drop courses

October 10, 2016: Thanksgiving Day

October 24, 2016: Midterm Test

November 11, 2016: Remembrance Day

December 5 to 9: Final Examinations

ATTENDANCE: Students must discuss/communicate all late arrivals, early departures and absences with the instructor. Arriving late by more than 5 minutes is defined as Late Attendance. The penalty is described below:

Late attendance for more than three days: 0.20 percent for every class from the fourth day.

Absence for more than three days: 0.25 for being absent for every class from the fourth day

Text book: Calculus by Anton, Bivens and Davis, 10th edition. This text book is available in bookstore.

Brief Outline:

Review of pre-calculus, Limits, one-sided limits, precise definition of limit, limits at infinity, computation of limits and continuous functions.

Derivatives, Rate of change and slope, Rules for derivatives, Differentiability and Continuity, Higher order derivatives.

Implicit differentiation

Derivatives of logarithmic and exponential functions

Increasing and decreasing functions

Relative Maxima and Minima, Concavity

Points of Inflection, Absolute Maximum and Absolute Minimum

Simple Indeterminate Forms, Curve sketching using derivatives.

Related rates, Differentials, Newton's Procedure for solving equations, applied maximum and minimum problems

The indefinite integral, Introduction to differential equations and some selected topics.

Purpose of the course: Variables and change in variables are fundamental in everyday problems in any field of knowledge, either science or business. We formulate methods to study and calculate precisely the changes that occur between variables. In engineering and scientific applications, calculus serves as the fundamental tool in the analysis of the relation between the variables.

Resources: Office hours are there for you to get help. Math tutorial centre is also there for you. Make appointments to use any of these support systems. You should redo the questions we do in class right after each lecture. You are welcome to contact me by email: sekambaram@columbiacollege.ca

CALCULATOR: A scientific calculator is required. Students must come to my office to show and get help in using calculator on or before Sept 12, 2016. Cell phone should not be used for calculator.

ATTENDANCE: Students must discuss/communicate all late arrivals, early departures and absences with the instructor. Arriving late by more than 5 minutes is defined as Late Attendance. The penalty is described below:

Late attendance for more than three days: 0.20 percent for every class from the fourth day.

Absence for more than three days: 0.25 for every class from the fourth day.

The penalty applies if you are absent before the break or if you are absent after the break.

BONUS MARKS: For punctuality, attendance, asking questions, answering questions, attending office hours for guidance in studying, learning to use calculator only when it is necessary, learning when not to use calculator, observing good code of ethics as a student and keeping up the deadlines for assignments, all these will be given bonus marks of up to 10% at the discretion of the instructor.

	DATES	PERCENTAGE
QUIZZES	Every class	25
Midterm Test	During 7 th week	30
FINAL EXAMINATION	IN THE WEEK OF December 5 th	45

Instructions:

Please visit my electronic home <http://staff.columbiacollege.bc.ca/sekambaram/>

Also visit student portal and look at "DOCUMENTS"

All electronic communication devices must be switched off.

Follow the language of mathematics and use standard terminology, symbols and notations.

Math 113 needs clear writing habits. The language of Mathematics is what I use in class.

You can learn from my writing on the board and from the text book.

If you miss a test or quiz, a second chance may not be given. Doctor's note may not be always acceptable.

Make appointments to see me during office hours or some other time if you have classes.

The method is more important than the answer to the question. Show your understanding.

Have a balanced life over Food, Study, Work and Rest!

CHEATING AND PLAGIARISM:

Columbia College expects all students to uphold the principle of academic honesty. Cheating and plagiarism (presenting another person's words or ideas as one's own) are not acceptable behaviour at any educational institution. Depending on the severity of the offense such acts can result in a grade of zero on the test or assignment, a failing grade (F) in the course or expulsion from the college. In all cases, the circumstances and the penalty are recorded in the student's file.

CLASSROOM CODE OF CONDUCT

Students at Columbia College are expected to show respect for the rights of other students, in particular the right to study and learn. Any behaviour in a classroom that interferes with the instructor's ability to conduct the class will be treated as disruptive; the penalties for disruptive behaviour are set out in the College Calendar, and include suspension and even expulsion from the College. In general students are expected to be attentive and courteous during class and lab time, to complete assigned work and to accept responsibility for their own achievement. In particular: Students will aim to arrive at all classes early so as to be ready when the class begins – this means taking a seat and getting out paper, pens, necessary texts and so on before the class starts. Students will not expect to leave the class before the instructor has finished. On those rare occasions when a student must leave a class early he/she should seek the permission of the instructor before the class starts. If a student must excuse himself/herself during a class the student should request permission and leave as quietly as possible.

Cell phones, pagers and beepers will be turned off during classes, not simply switched to "vibrate" mode. Students should never consult their phones, etc, during a class.

Students will not talk while the instructor is talking.

Students will speak respectfully when asking a question or answering a question posed by the instructor.

Students may not eat or drink during classes unless the instructor indicates that this is acceptable in his/her class