MATH 225: Multivariate Calculus
Fall 2019 Syllabus
TH 12:30-1:45, CAS 224
http://math.bu.edu/people/lau/Lau/Teaching.html

Instructor:	Siu-Cheong Lau	**Teaching fellow:**	Junzheng Nan
Office:	MCS 247	**Office:**	MCS 256
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Office hours:	Wed. 10-12; 2-4.	**Office hours:**	Thu 10:30-11:30

Grading:

Homework	Collected in discussion section every week	25%
First mid-term test	Sep 26 in class (50 min)	20%
Second mid-term test	Oct 29 in class (50 min)	20%
Quiz	Nov 19 in class (25 min)	10%
Final exam	Dec 16 12:30-2:30 at CAS 224	25%

Textbook:
Thomas Calculus Multivariable 13e, ISBN-13: 978-1-323-00698-6.
Students can continue using their digital MyLab access (CURRENT MyLab course that contains Briggs 2e/Thomas 13e) for the fall semester or they can purchase a printed text from www.mypearsonstore.com, and the discount code "terriers" is valid. Price is $32.70 after discount.

Lecture and discussion:
Please attend every lecture and your own discussion section.
Discussion Sections:
Wed.   9:05-9:55   1:25-2:15   2:30-3:20   Thur.   8:00-8:50   9:30-10:20

Homework:
You must turn in physical HW, collected **every week (except the first week) at the end of your discussion section**.
If you are unable to attend discussion, you may put your HW in your TF's mailbox in the main math office (MCS 142) *before* the beginning of your discussion section.
Late assignments will not be accepted.
Please **write down your name, BU ID, and discussion section clearly** at the top of the front page of each assignment.
The assignments will be posted on the course webpage and worth 10 points each:
• **4 points for effort**
• **6 points for correctly answering three selected problems (2 points each)**
If you make a concerted attempt at each problem, you will get all 4 effort points.
You will not be told in advance which three problems will be selected.
You are encouraged to work together on the HW, but your write-ups must be your own.
Identical HW could be considered plagiarism.
Your lowest two HW grades will be dropped.

In-class tests and final exam:
You cannot use book, note, or calculator in tests and the final exam.
I do not give make-up tests unless you have a legitimate excuse, such as a serious illness or family emergency, and a written excuse. Please notify me in advance.
University policy states that you must take the final exam at the scheduled time.

If you feel that your in-class test or final exam was incorrectly graded, you may submit it to me for re-grading within one week of receiving it.

We are pleased to help:
* Come to my or your TF's office hours, or email me or your TF.
* Go to the tutoring room, MCS B24, to get help from a graduate student. The full schedule is at
  http://www.bu.edu/math/undergraduate/resources/tutoring-room-schedule/
* Get free peer tutoring from the Educational Research Center.
  http://www.bu.edu/erc/tutoring/

LOT OF EFFORT, LOT OF FUN!

	Tuesday	Thursday
Sep 2 – 6	Coordinates, distance and vectors	Dot and cross products
Sep 9 – 13	Lines, planes and quadrics	Curves and arc length
Sep 16 – 20	Parametric surfaces	Multivariable functions
Sep 23 – 27	Review	**1st mid-term**
Sep 30 – Oct 4	Partial derivatives and PDE	Chain rule
Oct 7 – 11	Directional derivative	Tangent plane and linearization
Oct 14 – 18	**Monday schedule**	Critical points and critical values
Oct 21 – 25	Lagrange multipliers	Taylor's formula and review
Oct 28 – Nov 1	**2nd mid-term**	Double integrals
Nov 4 – 8	Surface area and substitution	Triple integrals
Nov 11 – 15	Line integral of vector fields	Line integral theorem
Nov 18 – 22	Review and **Quiz**	Curl and Greens theorem
Nov 25 – 29	Surface integrals of vector fields	**Thanksgiving**
Dec 2 – 6	Stokes theorem	Divergence theorem
Dec 9 – 13	Review	