NORTH CAROLINA STATE UNIVERSITY
DEPARTMENT OF MATHEMATICS

MA 121 - Elements of Calculus
Spring 2019

TEXT: Bittinger, M. L., Calculus (11th ed.)

MA 121 is a three-hour course. It is a terminal, one-semester course in calculus designed for those students whose degree programs require a single calculus course. The typical additional requirement is MA 114. Overall, about half of the students are in economics and business, a quarter to a third are in biological sciences, and the remainder are scattered among design, forestry, liberal arts, textiles and animal science.

This course is not a simplified 141, or even a 131. It is not easier, rather, different. It covers more topics, in less depth, than either of those two courses. We should emphasize concepts and ideas, strive for plausibility rather than rigor, and push for as much manipulative skill as the time allows. Applications should be emphasized (the text is excellent in this regard). Also to be emphasized are exponential functions and their applications, derivatives as rates of change, integrals as approximations to sums and as total change, simple models via differential equations, and computational aspects. These students are in areas where multivariate mathematics is important. Trigonometry has been deleted.

Students sometimes appear in 121 classes who have poor backgrounds in algebra. For these, and others as well, running review is helpful. **However, MA 107 (or equivalent) is prerequisite to this course, and it is reasonable to expect this background.** Poorly prepared students should be encouraged to go back to MA 107. Students use WebAssign for the electronically delivered/submitted homework assignments.

On the whole, this text has received a very favorable response from those who have taught from it over the past few years. Students have found it quite readable. The "margin exercises" and end of chapter tests seem to be helpful. However, there is a lot of material to be covered. Some sections are rather long and some selection of material may be necessary. This is a stimulating and interesting course to teach. Your experience serves as a valuable aid to future instructors. Please give any comments, criticisms, etc. to the course coordinator, John Griggs.

MA 121 - ELEMENTS OF CALCULUS

TEXT: Calculus, by M. L. Bittinger (11th Edition)

Spring 2019

Weeks	Date	Sections
1	Mon Jan 7 - Fri Jan 11	R.1, R.2, R.3
2	Mon Jan 14 - Fri Jan 18	R.4, R.5, 1.1, 1.2
3	*Mon Jan 21* - Fri Jan 25	*(MLK, Jr holiday),* 1.3, 1.4
4	**Mon Jan 28 - Fri Feb 1**	**1.5, test review ,TEST #1, 1.6**
5	Mon Feb 4 - Fri Feb 8	1.7, 1.8, 2.1
6	Mon Feb 11 - Fri Feb 15	2.2, 2.3, 2.4
7	Mon Feb 18 - Fri Feb 22	2.5, 3.1, test review
8	**Mon Feb 25 - Fri Mar 1**	**TEST #2, 3.2, 3.3**
9	Mon Mar 4 - Fri Mar 8	3.4, 3.5, 4.1
	Mon Mar 11 - Fri Mar 15	(*Spring Break*)
10	Mon Mar 18 – Fri Mar 22	4.2, 4.3, 4.4
11	**Mon Mar 25 – Fri Mar 29**	**4.5, test rev, TEST #3**
12	Mon Apr 1 - Fri Apr 5	5.1 ,5.2, 5.3
13	Mon Apr 8 - Fri Apr 12	5.6, 5.7
14	**Mon Apr 15 -*Fri Apr 19***	**6.1, test review ,TEST #4, (*Spring Holiday*)**
15	Mon Apr 22 - Fri Apr 26	6.2, 6.3, Exam review
	Mon April 29 – Tues May 7	**Final Exams**

M,W or M,W,F Test Dates:
Wednesday, January 30
Monday, February 25
Wednesday, March 27
Wednesday, April 17

T, Th Test Dates:
Thursday, January 31
Tuesday, February 26
Thursday, March 28
Thursday, April 18