

**MATH 12003  
TEXT TRANSITION**

The new text for MATH 12003 for **Spring Semester 2008** will be *Essential Calculus* by James Stewart. This text is more concise than the current text, *Calculus*, 5th edition, by Stewart, and some material has been rearranged. The following tables give a correspondence between the sections we cover in MATH 12003 from *Calculus*, 5th edition (“Old”), and the sections of *Essential Calculus* (“New”) containing the same material.

**NOTE:** Some sections or portions of sections in *Calculus*, 5th edition, that are not included in *Essential Calculus* are available on the website for the text. These are indicated by “WEB” in the “New” section number column of the tables below. Go to

<http://www.stewartcalculus.com/>

and click on the *Essential Calculus* link, then go to “Additional Topics” to find PDF files for this material. There are also additional examples on the website for some sections that are included in *Essential Calculus*.

Section Number		Comments
Old	New	
8.1	6.1	
8.2	6.2	Trigonometric integrals. Integrals of products of factors of the forms $\sin mx$ and $\cos nx$ deleted.
8.3	6.2	Trigonometric substitutions. Deleted example available on WEB.
8.4	6.3	Brief subsection on “Rationalizing Substitutions” deleted.
8.5	WEB, 6.4	Section on Strategy for Integration on WEB. Subsection “Can We Integrate All Continuous Functions?” in 6.4.
8.6	6.4	
8.7	6.5	
8.8	6.6	
6.2	7.2	
6.3	7.3	
6.4	7.5	
9.1	7.4	
9.2	WEB	Area of a surface of revolution.
9.3	7.5	Old 6.4 and 9.3 combined into 7.5
9.4	DELETED	Applications to Economics and Biology.
9.5	DELETED	Section on Probability. This was an “optional” section on the old syllabus.

**MATH 12003, Text Transition, continued**

Section Number		Comments
Old	New	
11.1	9.1	Families of parametric curves deleted. Available on WEB under “Additional Examples.”
11.2	9.2	Brief subsection on surface area deleted.
11.3	9.3	
11.4	9.4	
11.5	9.5, WEB	Brief review of conic sections in 9.5. Full section on WEB.
11.6	9.5	
12.1	8.1	
12.2	8.2	
12.3	8.3	Estimating sums and remainder estimate covered in exercises only.
12.4	8.3	Estimating sums deleted.
12.5	8.4	
12.6	8.4	Rearrangements deleted.
12.7	WEB	Section on Strategy for Testing Series on WEB.
12.8	8.5	
12.9	8.6	
12.10	8.7	
12.11	8.7	Binomial series treated in examples in 8.7.
12.12	8.8	
13.1	10.1	
13.2	10.2	
13.3	10.3	Brief subsection “Direction Angles and Direction Cosines” deleted.
13.4	10.4	
13.5	10.5	
13.6	10.6	
13.7	12.6, 12.7	Cylindrical coordinates covered in 12.6 and spherical coordinates in 12.7 where needed for triple integrals.