

INSTRUCTOR'S SOLUTIONS MANUAL

Calculus for Engineers Fourth Edition

Donald Trim
University of Manitoba



Toronto

Copyright © 2008 Pearson Education Canada, a division of Pearson Canada Inc., Toronto, Ontario. Pearson Prentice Hall. All rights reserved. This work is protected by Canadian copyright laws and is provided solely for the use of instructors in teaching their courses and assessing student learning. Dissemination or sale of any part of this work (including on the Internet) will destroy the integrity of the work and is not permitted. The copyright holder grants permission to instructors who have adopted *Calculus for Engineers*, Fourth Edition, by Donald Trim, to post this material online only if the use of the website is restricted by access codes to students in the instructor's class that is using the textbook and provided the reproduced material bears this copyright notice.

CONTENTS

This manual contains detailed solutions to all exercises in the text. We would appreciate being made aware of any errors.

Chapter 1	Calculus Preparation	1
Chapter 2	Limits and Continuity	72
Chapter 3	Differentiation	99
Chapter 4	Applications of Differentiation	170
Chapter 5	Antiderivatives and the Indefinite Integral	300
Chapter 6	The Definite Integral	332
Chapter 7	Applications of the Definite Integral	360
Chapter 8	Techniques of Integration	443
Chapter 9	Parametric Equations and Polar Coordinates	506
Chapter 10	Infinite Sequences and Series	553
Chapter 11	Vectors and Three-dimensional Analytic Geometry	644
Chapter 12	Differential Calculus of Multivariable Functions	722
Chapter 13	Multiple Integrals	816
Chapter 14	Vector Calculus	935
Chapter 15	Differential Equations	1012