

Lecture Notes for  
ENGI 4430 “Advanced Calculus for Engineering”  
by Dr. G.H. George

The tenth edition (2019) has no further changes for 2021.

**Changes from the ninth to tenth editions**

Page 3.12: diagram of the circular disc added

Page 5.10: additional note on Newton’s method added

Pages 7.10-7.11: improvement in vertical spacing, but no new text

Pages 9.19-9.20: transposition of determinants to place vectors in columns, not rows; and  
addition of alternative derivation of normal vector to the sphere

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The first eight editions should no longer be used in this course.

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