

Instructor: Mike Bolt

Office: North Hall 292

Office Hours: You can be sure to find me Mondays, Tuesdays, Wednesdays, and Fridays from 10:30-11:20am.  
You are welcome to come at other times, too, or to schedule an appointment.

Email: [mbolt@calvin.edu](mailto:mbolt@calvin.edu)

URL: <http://www.calvin.edu/~mdb7>

course URL: <http://www.calvin.edu/~mdb7/courses/m271/F09/>

Phone: x6-6719

- Class meets M-W-F from 11:30am-12:20pm in North Hall 251; and T from 11:30am-12:20pm in North Hall 276.
- The text is *Essential Calculus: Early Transcendentals* by James Stewart, published by Thomson.

**Sections Covered:**

- 9.1 Parametric Curves
- 10.7 Vector Functions and Space Curves
- 10.8 Arc Length and Curvature
- 10.9 Motion in Space: Velocity and Acceleration
- 11.1 Functions of Several Variables
- 11.2 Limits and Continuity
- 11.3 Partial Derivatives
- 11.4 Tangent Planes and Linear Approximations
- 11.5 The Chain Rule
- 11.6 Directional Derivatives and the Gradient Vector
- 11.7 Maximum and Minimum Values
- 11.8 \*Lagrange Multipliers
- 12.1 Double Integrals over Rectangles
- 12.2 Double Integrals over General Regions
- 12.3 Double Integrals in Polar Coordinates
- 12.4 Applications of Double Integrals
- 12.5 Triple Integrals
- 12.6 Triple Integrals in Cylindrical Coordinates
- 12.7 Triple Integrals in Spherical Coordinates
- 12.8 \*Change of Variables in Multiple Integrals
- 13.1 Vector Fields
- 13.2 Line Integrals
- 13.3 The Fundamental Theorem for Line Integrals

- 13.4 Green's Theorem
- 13.5 Curl and Divergence
- 13.6 Parametric Surfaces and Their Areas
- 13.7 Surface Integrals
- 13.8 Stokes's Theorem
- 13.9 The Divergence Theorem

- **Test Schedule:** There will be 4 in-class tests on the following days:
  - **Wednesday, September 30**
  - **Friday, October 23**
  - **Wednesday, November 11**
  - **Monday, November 30**

See me in advance if you encounter a conflict with this schedule.

The final exam is scheduled for **Friday, December 18, at 9am.**

- You are encouraged to work together on problem sets, but the work you submit must be your own—the usual rules of academic honesty are in effect. Problem sets should be prepared neatly; they should be stapled without fringes or clips.
- You are expected to attend all classes and to submit problem sets on time. Rather than accept late papers, I will replace your lowest two scores on the problem sets with the average of your other scores. I will also replace your lowest test score with the average of your three highest test scores. A running list of problem sets will be maintained on the course webpage. Only the homework and quiz scores will be recorded on Knightvision.

**If for some reason you must miss a class, please notify me by email or voicemail.**

- Your combined score (and course grade) will be determined using

$$100 \text{ points each test} + 200 \text{ final exam} + 150 \text{ homework \& quizzes} = 750 \text{ points total}$$

Any quizzes will be announced during class at least two class periods in advance.

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Calvin College will make reasonable accommodations for persons with documented disabilities. Students should notify the Coordinator of Services for Students with Disabilities located in Student Academic Services. Students should also notify me during the first two weeks of class.