## Calculus III (MATH 30524-040) in Spring 2014

Room	Time
TUC 243	TuTh 12:30–1:50 PM
TUC 138	F 12 n–12:50 PM
Instructor	E-mail
Loren Spice	l.spice@tcu.edu
Office	Office hours
TUC 215	M $6-7$ PM (shared)
100 515	TuTh 11:30 AM–12:20 PM
TCU Online	F 11–11:50 AM (shared)
tcuglobal.edu	and by appointment

Textbook Larson and Edwards, Multivariable calculus (9th edition)

## Course goals

- Use vectors and their algebra to describe motion and other directed, multi-dimensional quantities.
- Understand the relationships among gradients, directional derivatives, and maxima and minima of multi-variable functions.
- Use changes of variable and vector-field calculus to transform and compute multi-dimensional integrals.

We will cover most of the text. Specific highlights include vector geometry; the multi-variable chain rule; multi-variable and constrained optimisation problems; multiple integrals; vector fields; and "div, grad, curl, and all that".

Attendance Attendance is required. You must sign the attendance sheet each class, or you may be marked absent. Attendance can earn up to 1 bonus point on each exam. See the expanded syllabus on the course web-page.

Grading Course components will be weighted as follows:

Homeworks	$\mathbf{Quizzes}$	Midterms	Final	
15% 10%		$\begin{array}{c} 15\% \text{ each} \\ (45\% \text{ total}) \end{array}$	30%	

You can see your current weighted percentage on the course web-page at any time. If you think that a grade has been mis-computed, you **must** talk to me within 1 week of its being recorded.

Your course grade will be determined as follows:

Min. $\%$	Min. Grade	Min. %	Min. Grade	Min. $\%$	Min. Grade
90%	A-	94%	А		
80%	B-	84%	В	87%	B+
70%	C-	74%	$\mathbf{C}$	77%	C+
60%	D-	64%	D	67%	D+

If you have earned less than 60% of the course credit, then you may receive an F. Exam and course grades may be curved.

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Academic Conduct You must comply with the University's academic-conduct policies at http://www.catalog.tcu.edu/current\_year/undergraduate/1411.htm.

See the expanded syllabus on the course web-page.

- **Calculators and technology** A graphing, but not a symbolic, calculator is **required** for the class (although it may be **forbidden** for selected problems). See the expanded syllabus on the course web-page.
- Homeworks Homeworks will be posted on the course web-page after most Tuesday and Friday classes, and are due by the **beginning** of the next class after they are assigned.

Homeworks must be handed in to me **in person**. If you are not able to do so, then you may have a friend hand it in, or e-mail me a scanned copy by the due time. If an Official Absence will interfere with a due date, please let me know **in advance** so that we can make an appropriate adjustment. **Late** homeworks will not be accepted.

You may work with classmates on the homeworks, but you must write up your own work **independently**. The lowest homework grade will be dropped.

You should budget about **10 hours** per week for reviewing notes and doing homework. You **cannot** earn better than a C, regardless of exam scores, without satisfactory homework and quiz grades.

**Quizzes and exams** Quizzes will be held in class every Friday (except for midterm weeks). The lowest quiz grade will be dropped.

Midterms will be held in class on Thursdays: February 13; March 20; and April 17.

Re-scheduling of exams will be provided **only** in case of an Official Absence; or at my discretion, for extreme, documented reasons. In either case, you must tell me **one week** in advance, or as soon as is reasonably possible.

The final exam will be **Tuesday, May 6, 11:30 AM–2 PM**, in a location to be announced. The time is set by the registrar, and **not** subject to change. **Travel plans** are not a sufficient reason to miss a final.

**Disability policy** This course complies with the University disability statement at

http://www.ugradcouncil.tcu.edu/forms/DisabilitiesStatement.doc.

See the expanded syllabus on the course web-page.