

Syllabus\*  
Calculus with Analytic Geometry II  
MATH 222 sec. 1; MW 1:00 – 1:50, TR 12:30 – 1:45; BH 442

**Instructor:** Dr. Rick Mabry

**Office:**

BH 416; 797-5352;

MW 10:00-11:00am and 4:15-5:00pm; TR 10:30am-12:30pm.

Other hours can occasionally be arranged by appointment. Note my class hours below, all in BH 442.

**MW:** 1:00–1:50 (Calc. II), 2:00–3:15 (Trig), 5:00–6:15 (PDE)

**TR:** 12:30–1:45 (Calc II)

**F:** 2:00—??? (Friday Seminar)

**Email, Web page:** rmabry AT lsus DOT edu, <http://www.lsus.edu/rick-mabry>

**Text:** *Calculus* by Sisson and Szarvas

**Outline:** The main topics in the course will come from chapters 6, 7, 9, and 10 of the text. Here is a list of the main topics:

**Chap. 6** Finding volumes with slices; finding volumes with shells; arc length and surface area; hyperbolic functions; moments and centers of mass; work, force, and fluid pressure.

**Chap. 7** Integration by parts; partial fractions techniques; trigonometric integrals; trigonometric substitution; integration using Computer Algebra; numerical integration; improper integrals.

**Chap. 9** Parametric equations; polar coordinates; conic sections in Cartesian coordinates and polar coordinates.

**Chap. 10** Sequences; infinite series; the integral test; comparison tests; ratio and root tests; absolute and conditional convergence; power series; Taylor and Maclaurin series; applications of series.

**Grades:** There will be a three tests and a comprehensive final exam (see **Calendar**, below, for dates). The lowest of the three test scores will be replaced with the grade on the final exam, if the grade on the final exam is higher, then the four scores will be averaged to compute the total exam score. For this reason (and others), the following will be strictly enforced: *any test missed without valid and verifiable excuse will be assigned a score of zero*, and the previous sentences apply.

The final grades will be assigned as follows:

$$F < 50 \leq D < 60 \leq C < 75 \leq B < 90 \leq A.$$

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\*The instructor reserves the right to make announced changes as the semester progresses.

	Mon.	Aug. 20		First class. Howdy.
	Mon.	Sep. 3		Labor Day Holiday
	<b>Tue.</b>	Sep. <b>11</b>	Last day to drop without W	
	Tue.	Sep. 18	<i>Test #1</i>	
	Mon.	Oct. 1		Last day to change to Audit
	Thu.–	Oct. 18–		Fall – (no
	–Fri.	–Oct. 19		–Break classes)
<b>Calendar:</b>	Tue.	Oct. 9	<i>Test #2</i>	
	Mon.	Oct. 29		Last day to withdraw with W
	Thu.–	Nov. 22–		Thanksgiving– (no
	–Sat.	–Nov. 24		–Holiday classes)
	Tue.	Nov. 6	<i>Test #3</i>	
	Thu.	Nov. 29		Our last class. It’s been volumes of fun.
	Mon.	Dec. 3	<i>FINAL EXAM</i>	@ 1:00 pm

Final exam schedule:

[www.lsus.edu/offices-and-services/records-and-registration/final-exam-schedule](http://www.lsus.edu/offices-and-services/records-and-registration/final-exam-schedule)

**Homework:** Homework will be assigned but only rarely (if ever) collected. (Ignore it your own peril! If you don’t treat your homework like daily bread, you’ll soon be toast.) Material stressed in class is usually a good indicator of its likelihood of appearing on a test. Be sure to consult the old exams, too, which are posted on our *home page* (see below).

**You should have:** The tools of the trade: a scientific calculator (any kind) is a must; graph paper and a ruler are recommended. Warning: you will have no access to calculators (or other electronic devices) during your exams.

**Student Email and Moodle:** You can use the online Moodle system to check your test grades, send and receive class messages, etc. I send announcements using the News Forum on our Moodle page.

*Check your official LSUS email daily* (or even dailier) to be sure you don’t miss important messages from me and others at LSUS. I’m told you can have LSUS email forwarded to another account of your choosing. <http://www.lsus.edu/student-email>

A link to Moodle is here: <http://moodle.lsus.edu/>

I often post items of interest on our unofficial Calc II *home page*, here: <http://lsusmath.rickmabry.org/rmabry/math222/>

I answer my email daily. (Seems more like hourly.)

**Disability Services:** LSUS will make reasonable accommodations for persons with documented disabilities. Students must notify the Coordinator of Services for Students with Disabilities located in the Student Development & Counseling Center (Administration Building, Room 227, 797-5365) and the instructor of any special needs.

**Code of Student Conduct:** Academic dishonesty will not be tolerated. Students should familiarize themselves with the code of student conduct found in the Student Handbook. Some possible sanctions for violating the code may include:

- loss of credit for the work involved
- grade of F in the course
- separation from the university for one or more semesters
- expulsion from the university

The Student Handbook is online here:

[www.lsus.edu/offices-and-services/policies-and-manuals/student-handbook/student-rights-and-responsibilities/student-conduct-code](http://www.lsus.edu/offices-and-services/policies-and-manuals/student-handbook/student-rights-and-responsibilities/student-conduct-code)

**Math Help Lab:** Take advantage of free tutoring, help and computing power in the Math Help Lab, BH 404 (hours TBA).