# Math 123: Syllabus and Integration By Parts 

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CSU Long Beach

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## Outline

## (1) Syllabus Highlights

## (2) Integration By Parts

## Syllabus Highlights

Course Webpage:
http://www.csulb.edu/~rblair/Math123F16/index.html

Here you will find
(1) Lecture slides
(2) Course Calendar
(3) A link to WebAssign
(3) Instructions for accessing WebAssign
(5) A copy of the syllabus
(0) A link to Beachboard (where your quiz, homework and test scores are posted)
(3) Other useful links

## Text

Required Text: Stewart, Essential Calculus: Early Transcendentals, Second Edition + Supplemental Materials (These are available in a bundle from the book store or for free online).

Required Homework Platform: A subscription to WebAssign. Homework for today: Log in to WebAssign!!!!!

## Redesigned Calc. Sequence

Big Changes
(1) Coordinated homeworks, exams and content.
(2) More emphasis an test preparation.
(3) Mandatory supplemental instruction for students that are not exempt (However, all students are welcome).
(9) Collaborative work in Activity Sections.

Goal: Get more students to pass Math 123!!!

## Grading

(1) $7 \%$ Webassign
(2) $6 \%$ Show your work
(3) $7 \%$ Activity Assignments
(3) $10 \%$ Maintenance and Improvement
(6) $15 \%$ Midterm 1
( $15 \%$ Midterm 2

- $15 \%$ Midterm 3
(8) $25 \%$ Final


## Homework

(1) Online on WebAssign (http://www.webassign.net/)
(2) Class key is csulb 94095466 .

- Access Code is sold with the text book package from the library.


## Exams

## Mark your calendars

(1) Midterm 1: September 22
(2) Midterm 2: October 20

- Midterm 3: November 17
- Final: December 15


## Classroom Decorum:

(1) No Talking
(2) No Texting
(3) Cellphone Ringers Off
(1) Laptops and cell phones only used for class activities.

## Adding the Course

Speak to me about adding the class after class.
Space is limited.

## Grading

Grades will be computed by the following absolute scale:
(1) A $85-100 \%$
(2) $\mathrm{B} 75-85 \%$
(3) C $65-75 \%$
(9) D $55-65 \%$
(6) F $0-55 \%$

## Be Aware

(1) Accommodations because of a disability
(2) Withdraw
(3) Academic Integrity

## Integration by Parts

$$
\int u(x) v^{\prime}(x) d x=u(x) v(x)-\int u^{\prime}(x) v(x) d x
$$

Exercise: Derive the above equality by using the product rule to find the derivative of $u(x) v(x)$.

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Key: Let $u$ be the function that gets simpler as you differentiate.

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Key: Let $u$ be the function that gets simpler as you differentiate. Example: Derive the above formula from the product rule for derivatives and the fundamental theorem of calculus.

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Example: Find $\int \ln (x) d x$.
Key: Sometimes by-parts can be used to integrate functions we know how to differentiate.
Example: Find $\int(2 x+1) \ln (x) d x$.

