# Math 123: Syllabus and Review of Integration 

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## Outline

## (1) Syllabus Highlights

(2) Review of Integration

(3) Integration By Parts

## Syllabus Highlights

Course Webpage:
http://www.csulb.edu/~rblair/Math123S16/index.html

Here you will find
(1) Lecture slides
(2) Course Calendar
(3) A link to WebAssign
(9) Instructions for accessing WebAssign
(5) A copy of the syllabus
(6) 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) 20\% Homework, Benchmarks and Quizzes
(2) 10\% Maintenance and Improvement

- $15 \%$ Midterm 1
- $15 \%$ Midterm 2
- $15 \%$ Midterm 3
- $25 \%$ Final


## Homework

(1) Online on WebAssign (http://www.webassign.net/)
(2) Class key is csulb 39216411.
(3) Access Code is sold with the text book package from the library.

## Quiz

(1) There will be both announced and unannounced quizzes in lecture and in activity section.

## Exams

Mark your calendars
(1) Midterm 1: February 18
(2) Midterm 2: March 17
(3) Midterm 3: April 21
(3) Final: May 12

## Classroom Decorum:

(1) No Talking
(2) No Texting
(3) Cellphone Ringers Off
(9) 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 $55-65 \%$
(5) F $0-55 \%$

## Be Aware

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

## Fundamental Theorem of Integration

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## Theorem

(Fundamental Theorem of Calculus, Part 2) If $f$ is continuous on $[a, b]$, then

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\int_{a}^{b} f(x) d x=F(b)-F(a)
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Examples: Evaluate $\int_{0}^{1} x^{2}+1 d x$.

## U-Substitution for definite integrals

Theorem
If $u=g(x)$ is a differentiable function and $f$ is continuous, then

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\int_{a}^{b} f(g(x)) g^{\prime}(x) d x=\int_{g(a)}^{g(b)} f(u) d u
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Examples: Evaluate $\int_{0}^{1} x e^{x^{2}} d x$. Examples: Evaluate $\int \tan (x) d x$.

## Integration by Parts

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